1.1.1: The Institution ensures effective curriculum delivery through a well-planned and documented process

- The College ensures effective curriculum delivery through a well-planned and documented process. In curriculum related activities, academic freedom is enjoyed by the faculty. They actively participate and support the curriculum development, delivery, and assessment within the overall framework of the program approved by the University.
- The institution follows the academic curriculum designed by A P J Abdul Kalam Technological University (APJAKTU). Flexibility in making changes in curriculum is restricted due to this. But the curriculum provided by the university has got a balanced structure comprising humanities, basic science, professional core and elective courses. In 2019 the curriculum had been revised after the first introduction of curriculum in 2015 by APJAKTU. The University has taken into consideration the Outcome Based Education Parameters and the curriculum has been prepared such that it helps in the attainment of Programme Outcomes to a large extent. At the same time within the institution, efforts are taken to assess the curriculum and syllabus and additional measures are taken to help attainment of PO's and PSO's.
- The academic calendar is published by the university every year before the commencement of the classes. The college plans the academic schedule as per APJAKTU's academic calendar. Departmental academic calendar and institutional academic calendars are prepared based on this. It details the academic activities for the semester, and provides schedule for conduct of class/course committee meetings, continuous internal evaluations as well as commencement date of end semester examinations. The institutional academic calendar is published in the college website.
- Course allotment is done well in advance, for faculty to prepare course plan, and for effective planning and preparation by the faculty for fruitful curriculum delivery. Before the commencement of the semester a detailed course plan has to be prepared for each course by the concerned faculty and duly approved by the Head of the Department and the Principal. The concerned teachers prepare their subject-wise lesson plans. The lesson plan incorporates topics to be covered and, the number of hours needed for completing each topic.
- The timetable committee prepares time table in adherence to the requirements specified by APJAKTU based on which teachers conduct classes. For ensuring adherence to academic calendar, course diary is prepared and maintained for each course by the respective faculty.
- Meetings are arranged periodically to review the coverage of syllabus in the respective departments and suitable corrective measures are adopted to complete the syllabus within the stipulated time. Bimonthly meetings are conducted by the academic committee to monitor the progress of the completion of syllabus. The adherence to academic calendar is also verified in course committee/class committee meetings and during academic audits done internally and externally. Internal academic auditing committee monitors the adherence to academic calendar and all the academic activities.



This is followed by an external audit by the University. ISO audit team also ensures the quality of the teaching learning process.

- Continuous Internal Assessments (CIE) are conducted in accordance with the university academic calendar. For the effective transmission and delivery of curricula, departments integrate classroom teaching with various ICT tools, laboratory practical, field projects, students' seminars, tutorials, question papers solving etc.
- Special classes and remedial classes are conducted for students lagging in understanding concepts and to bring them at par with the rest of the class. Bright students are encouraged and assisted to improve upon the academic grades. For enhancing subject knowledge invited talks, workshops, seminars, conferences etc. are organised.
- The classes were at the height of their activity when the temporary closure was announced by Government in March 2019, due to the outbreak of the pandemic demanding social distancing, The U.G. and P.G. courses were in the middle of even semester. After the initial chaos of few days, SSET resumed the teaching/learning process remotely. The announcement was made through the official website and communicated with the students and parents through the faculty advisors. As the initial step towards remote learning, it was decided to create digital learning resources, both textual and visual, for the course contents to continue with the classes. These course contents were communicated to the students through Google Classroom. IQAC took care of the whole procedure, to ensure all courses, theory and laboratory are assigned with Google Classroom and the entire students of the respective classes can access the learning resources.
- SSET became a part of the Coursera for Campus Campaign. In addition to Coursera, SSET encouraged students to do NPTEL courses as well. A good number of webinars, workshops, and talks have been conducted by all departments, where students got a medium to interact with the supporters from Academia and Industry. Students were also encouraged to be part of online- hackathons and other peer-driven activities to interact with the outside world. Project guidance and evaluations, remedial classes, and mentoring sessions were also conducted through the online conferencing platforms. Whenever University & Government orders permitted special classes and laboratory sessions were held offline in 2021.
- The offline classes resumed in full swing with classes for final years, i.e., for seventh semester students from 25.10.2021. This was followed by commencement of classes for all semesters UG and PG and by 22.11.2021 the academic activities were fully resumed in offline mode and wherever required hybrid mode was adopted.



SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

VIDYA NAGAR, KARUKUTTY, ERNAKULAM – 683576, PHONE: 0484-2882900, 2450330 E-Mail: sset@scmsgroup.org Website: www.scmsgroup.org/sset

Appended:

- ACADEMIC CALENDAR
- TIME TABLE
- SAMPLE COURSE FILE

DR. PRAVEENSAL C.J.

PRINCIPAL SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY Academic Calendar B.Tech (Even Semester) January2017-July2017 (Revised)

| - | | | | Max 2017 | 1 | June 2017 | | July 2017 |
|------------|----------|--------------------------------------|---------------|-----------------------------------------------|----------|------------------------------------------------------------|-----------|------------------------------|
| ay | - | April 2017 | - | may 2011 | T | | | |
| on | | | - | | | | | |
| 96 | | | | | | | - | |
| ed | - | | | | 1 | | | |
| ıu | - | | | | 2 | Exam \$2/\$4(E) | | |
| ri | | The second second second second | CALIFORNIA PA | | 3 | Exam S2(F) | 1 | Exam \$1/\$24B) |
| at 📄 | 1 | | | | 4 | | 2 | |
| ın | 2 | | | A Sec. Daw | 5 | Exam \$2/84(F) | 3 | Exam \$1/\$2 (C) |
| on | 3 | | | May Day | 6 | Summer Courses | 4 | Exam \$1/\$2 (C) |
| ue | 4 | | 2 | | | Starts | | |
| | | | | | | Exam S2(F) | - | The Street of The |
| | - | | 3 | | 7 | Exam S2(F) | 5 | Exam S1/52 (L) |
| /ed | 5 | | 4 | | 8 | | 6 | Exam Strop (E) |
| hu | 6 | The Day ha | 5 | 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 9 | | 7 | Exam \$1/84(1) |
| ri | 7 | Completed | | | - 10- | | 8 | <u></u> |
| at | 8 | College Level Sports : | 6 | | 10 | | 269.940 | |
| | | Meet to be | | | a dillo | | 0193 | |
| | | completed | | | - jack | | 9 | |
| un | 9 | | ···· ? | Henrie Constanting and | 17 | Second Street of Contract Street of Contract | 10 | Exam S1/S2 (k |
| lon | 10 | | 8 | | 12 | | 11 | Exam S2 (A) |
| ue | 11 | | 9 | | 14 | | 12 | Exam S2(D) |
| Ved | 12 | Publish Test-2 Marks | 10 | Course Committee/Class Committee Meeting | 14 | | 13 | Exam S2(E) |
| Chu | 13 | Maundy Thursday | 11 | Last date for evaluation | 15 | | | (CS/IT) |
| Inu | 15 | | | of Practical Exam | | | | Trank1/A |
| | | Card Falder Minhiel | 12 | Classes End, | 16 | | 14 | Licam 25 (A) |
| Fri | 14 | Good Friday, vasuu, | | Publish | | | | |
| | | Dr. Amoeuna | | Internal Marks | | | 1.1.1.1.1 | F |
| | | Juyanun | 12 | | 17 | denois again | 13 | Exam So (D) |
| Sat | 15 | | 14 | a de la companya de la companya de la | 18 | an une enternado | 10 | E |
| Sun | 16 | Paster | 15 | Publish Attendance | 19 | | 17 | Exam of (c) |
| Моп | 17 | Course Committee/Class | 15 | | | | | |
| | 1 | Committee Meeting | | Common an anurse | 20 | Summer Courses | 18 | Exam S5 (D) |
| Tue | 18 | | 10 | Summer course | | for S1/S2 Ends | | Ranne State |
| | a second | | - | registration | 71 | Report Eligibility | 19 | Exam S3 (E |
| Wed | 19 | | 17 | Forward Attendance & Internal Marks to KTU | | of S1/S2 Students after Summer | | |
| | | | 1 | | - 22 | Course | 20 | Exam \$3/\$4 (|
| The | 20 | | 18 | | 122 | | 21 | Exam 83/84 (|
| Inu E-' | 21 | | 19 | | 23 | a ane second second | 22 | |
| FT1 | 21 | Contractor Boolder | 20 | | 44 | | 2.3 | Karkadaka V |
| Sat | 24 | The long to the long | | | 25 | | 100 | |
| Sun | 4.2 | | 21 | Construction of the second | 51 20000 | | 24 | Exam S4 (A |
| States - | 34 | a part man water a man water at | 22 | | 20 | Exam SI (A) | 25 | Exam S4 (E |
| MOD | 24 | | 23 | | 27 | Exam S1 (D) | 26 | Exam S4 (C |
| Ine | 43 | | 24 | Exam S2/S4 Slot A | 28 | Summar Courses | 27 | Exam S4(D |
| Wed | 26 | | 25 | | 29 | Ends | | |
| | - | | | | | ExamSI(E) | 70 | Kyam S4 (1 |
| Fri | 28 | | 26 | Exam S2/S4Slot B | 31 |) Report Eligibility of students after Summer Course | 20 | |
| | | | | | | Exam 31/32(B) | 20 | a Declassic Const |
| | | - | 0000 | | | | 30 | |
| Sat | 29 | 1 | 10 | | | | 21 | Construction of Construction |
| Sun | 31 |) <u>International International</u> | 20 | Exam S2/S4Slot C | | | | |
| Mo | 0 | | 29 | | 18 | | | |
| Tue | 2 | | 30 | - Fe Caretelat D | | | | |
| | | | 31 | Elaine OFACTORIA | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | |

17-01-2017

Director (Academic)

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY



Academic Calendar July 2017- July 2018

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech) Please see separate Academic Calendar for MBA

| Day | | July 2017 | | August 2017 | | September 2017 |
|------|-----|---------------------------------------------------------------------|--------|-------------------------------------------------|----|----------------------------------|
| Mon | | | | | | |
| Tue | | | 1 | Commencement of Classes, Registration Starts | | 1 |
| Wed | | | 2 | | | |
| Thu | | | 3 | | | |
| Fri | | | 4 | | 1 | Onam Vacation Begins Bakrid |
| Sat | [T] | | 5 | | 2 | |
| Sun | 2 | | 6 | | 3 | 1 st Onam |
| Mon | 3 | | 7 | Course Committee/Class Committee Meeting | 4 | Thiruvonam |
| | 4 | | 8 | | 5 | 3 rd Onam |
| Wed | 5 | | 9 | | 6 | SreeNarayana Guru Jayanthi |
| Thu | 6 | | 10 | | 7 | |
| Fri | 7 | | 11 | | 8 | |
| Sat | 8 | | 12 | | 9 | |
| Sun | 9 | | 13 | | 10 | 1 |
| Mon- | 10 | | 14 | | 11 | Re-Opening |
| Tue | 11 | | 15 | Independence Day | 12 | Sreekrishna Jayanthi |
| Wed | 12 | | 16 | Registration Ends | 13 | Publish Attendance |
| Thu | 13 | | 17 | | 14 | |
| Fri | 14 | | 18 | | 15 | |
| Sat | 15 | | 19 | | 16 | Test 1 to be Completed |
| Sun | 16 | | 20 | | 17 | |
| N | 17 | Commencement Engineering handholding program for new entrant. | 21 | | 18 | 34 |
| Tue | 18 | | 22 | | 19 | |
| Wed | 10 | | 23 | | 20 | |
| Thu | 20 | | 24 | | 21 | SreeNarayana Guru Samadhi Day |
| Fri | 21 | | 25 | | 22 | Publish Test 1 Marks |
| Sat | 22 | | 26 | | 23 | |
| Sun | 23 | KarkadakaVaavu | 27 | | 24 | |
| Mon | 24 | | 28 | Birthday of Ayyankali | 25 | |
| MTu | 25 | | 29 | | 26 | |
| Wed | 26 | | 30 | | 27 | |
| Thu- | 27 | | 31 | | 28 | |
| Fri | 28 | | | | 29 | Mahanavami |
| Sat | 29 | | | | 30 | Vijayadasami , Muharram " |
| Sun | 30 | | i nare | | | |
| Mon | 31 | | | | | |

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY



Academic Calendar July 2017– July 2018

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech) Please see separate Academic Calendar for MBA

| Day | | October 2017 | | November 2017 | | December 2017 |
|--------------|----|----------------------------------------------|-----------|---------------------------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------|
| Mon | | | | | | |
| Tue | | | | | | |
| Wed | | | 1 | | | |
| Thu | | | 2 | | | |
| Fri | | | 3 | | 1 | |
| Sat | | | 4 | | 2 | Milad-i-Sherif |
| Sun | | | 5 | | 3 | CONTRACTOR OF THE PROPERTY OF T |
| Mon | 2 | Gandhi Jayanthi | 6 | | 4 | Commencement of S1/S2/S5 Exams Exam S1/S5 |
| Tue | 3 | | 7 | | 5 | Exam S3 |
| Wed | 4 | | 8 | | 6 | Exam S1/S5 |
| Thu | 5 | | 9 | | 7 | Exam S3 |
| Fri | 6 | Publish Attendance | 10 | | 8 | Exam S1/S5 |
| Sat | 7 | | 11 | | 9 | Contraction and the same |
| Sun | 8 | | 12 | | 10 | |
| Mon | 3 | | 13 | | 11 | Exam S3 |
| Tue | 10 | | 14 | | 12 | Exam S1/S5 |
| Wed | 11 | | 15 | | 13 | Exam S3 |
| Thu | 12 | | 16 | | 14 | Exam S1/S5 |
| Fri | 13 | | 17 | | 15 | Exam S3 |
| Sat | 14 | | 18 | Zonal level Sports meet To be completed | 16 | |
| Sun | 15 | | 19 | | 17 | |
| Mon | 16 | | 20 | | 18 | Exam S1/S5 |
| Tue | 17 | | 21 | Course Committee/Class Committee Meeting | 19 | Exam S3 |
| Wed | 18 | Deepavali | 22 | | 20 | |
| Thu | 19 | | 23 | Last date for evaluation of Jury/Practicals | 21 | University Sports Meet |
| O Fri | 20 | Test 2 to be Completed | 24 | Classes End, Publish Internal Marks, Publish Attendance | 22 | |
| Sat | 21 | College level Sports meet To be completed | 25 | | 23 | Christmas Vacation Begins |
| Sun | 22 | | 26 | | 24 | |
| Mon | 23 | | 27 | Forward Attendance & Internal Marks to KTU | 25 | Christmas |
| Tue | 24 | | 28 | | 26 | |
| Wed | 25 | | 29 | | 27 | |
| Thu | 26 | | 30 | | 28 | |
| Fri | 27 | | | - | 29 | |
| Sat | 28 | | 10.1,410 | | 30 | |
| Sun | 4 | | | | 31 | |
| Mon | 30 | Publish Test 2 Marks | 121232313 | | | |
| Tue | 31 | | | | 1 | |

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY



Academic Calendar July 2017– July 2018

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech) Please see separate Academic Calendar for MBA

| Day | | January 2018 | | February 2018 | | March 2018 |
|-------|-----|-----------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mon | 1 | Registration Starts Commencement of Even Semester Classes | | | | 2 |
| Tue | 2 | Mannam Jayanthi | | | | |
| Wed | 3 | | | | | ÷ 1 |
| Thu | 4 | | 1 | | 1 | |
| Fri | 5 | | 2 | Publish Attendance | 2 | Publish Attendance |
| Sat | 6 | | 3 | | 3 | |
| Sun | 7 | | 4 | | 4 | |
| Mon | 8 | Course Committee/Class Committee Meeting | 5 | MINGOLAN HILLING AND | 5 | |
| Tue | 9 | | 6 | | 6 | - |
| Wed | 10 | | 7 | | 7 | |
| Thu | 11 | | 8 | | 8 | |
| Fri | 12 | Registration Ends | 9 | | 9 | |
| Sat | 13 | | 10 | Text 1 to be Completed | 10 | Test 2 to be Completed |
| Sun | 14 | | 11 | | 11 | |
| Mon | 15 | | 12 | | 12 | |
| Тис | 16 | | 13 | Maha Shivratri | 13 | |
| Wed | 17 | | 14 | Publish Test 1 Marks | 14 | and the second s |
| Thu | 18 | | 15 | | 15 | |
| Fri | 19 | | 16 | | 16 | Publish Test 2 Marks |
| Sat | 20 | | 17 | Tech Fest | 17 | |
| Sun | 21 | | 18 | | 18 | |
| Mon | 22 | | 19 | | 19 | |
| Tue | -23 | | 20 | | 20 | |
| Wed | 24 | | 21 | | 21 | |
| Thu | 25 | | 22 | | 22 | |
| Fri | 26 | Republic Day | 23 | | 23 | |
| Sat | 27 | | 24 | | 24 | |
| Sun ' | 28 | | 25 | | 25 | |
| Mon | 29 | | 26 | Contraction of the Contraction o | 26 | |
| Tue | 30 | | 27 | | 27 | |
| Wed | 31 | | 28 | | 28 | |
| Thu | | | | | 20 | Maundy Thuesday |
| Fri | | | | | 30 | Cood Friday |
| Sat | | | 182.00 | | 31 | Coou riluay |
| Sun | | | | | | |
| Mon | | | 1 million | | | |
| Tue | | | | | | |

· APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY



Academic Calendar July 2017– July 2018

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech) Please see separate Academic Calendar for MBA

| Day | | April 2018 | | May 2018 | 1 | June 2018 | 1 | July 2018 |
|-----|----|----------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Мол | | | | _ | | | | |
| Tue | | | 1 | May Day | 1 | | | |
| Wed | | | 2 | Exam S2/S6 | | | | The state of the s |
| Thu | | | 3 | Exam S4 | No. | | | |
| Fri | | | 4 | Exam S2/S6 | 1 | Commencement of Supplementary Exams | | |
| Sat | | | 5 | | 2 | | 11 | |
| Sun | 1 | Easter | 6 | | 3 | | 1 | |
| Mon | 2 | | 7 | Exam S4 | 4 | | 2 | |
| Tue | 3 | | 8 | Exam S2/S6 | 5 | | 3 | |
| Wed | 4 | | 9 | Exam S4 | 6 | | 4 | * |
| Thu | 5 | | 10 | Exam S2 Commencement of Summer Courses | 7 | | 5 | |
| Fri | 6 | Course Committee/Class Committee Meeting | 11 | Exam S2 | 8 | | 6 | |
| Sat | 7 | College level Arts fest To be completed | 12 | | 9 | | .7 | |
| Sun | 8 | | 13 | | 10 | | 8 | |
| Mon | 9 | Publish Internal Marks, Summer Course Registration | 14 | Exam S2 | 11 | | 9 | |
| Tue | 10 | | 15 | | 12 | | 10 | |
| Wed | 11 | Last date for evaluation of Jury/Practicals | 16 | | 13 | | 11 | |
| Thu | 12 | Classes End, Publish Attendance | 17 | University Arts Fest | 14 | | 12 | |
| Fri | 13 | Forward Attendance & Internal Marks to KTU | 18 | | 15 | ld-ul-Fitr | 13 | |
| Sat | 14 | Vishu | 19 | | 16 | STREET, MILLION STREET, | 14 | |
| Sun | 15 | | 20 | | 17 | | 15 | |
| Mon | 16 | | 21 | | 18 | | 16 | |
| Tue | 17 | | 22 | | 19 | | 17 | |
| Wed | 18 | | 23 | | 20 | | 17 | |
| Thu | 14 | | 24 | | 20 | | 10 | |
| Fri | 20 | | 25 | | 21 | | 19 | |
| Sat | 21 | | 2.5 | | 44 | L'ANNESS STREET | 20 | WAR CONTRACTOR OF STREET |
| Sun | 22 | | 27 | | 40 | | 21 | |
| Mon | 23 | Commencement of S2/S4/S6 Exams Exam S2/S6 | 28 | <u>and honory and an </u> | 25 | | 22 | |
| Tue | 24 | Exam S4 | 29 | | 26 | | 24 | |
| Wed | 25 | Exam S2/S6 | 30 | Summer Courses Ends | 27 | | 24 | |
| Thu | 26 | Exam S4 | 31 | Report Eligibility of Students after Summer Course | 28 | | 26 | |
| Fri | 27 | Exam S2/S6 | | | 29 | | 27 | |
| Sat | 28 | | | | 30 | | 78 | STOLES CONTRACTOR |
| Sun | 29 | | | | | | 20 | |
| Mon | 30 | Exam S4 | | and a second sec | | | 30 | |
| Tue | _ | | | | | | 31 | 4 |
| Wed | | | | | | | 51 | |

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Schedule of Activities

July 2017- December 2017

21-07-2017 27-07-2017 26-08-2017 $11^{th}-14^{th}$ Sept. 2017 3^{rd} to 7th Oct. 2017 23-10-2017 31st, Oct., 1st&2nd Nov. 2016 17-11-2017 29-11-2017 7th - 12th Dec. 2017 22-12-2017

- Yoga Day
 Inauguration of 17th B-Tech Batch
 Onam celebration
 Internal Test 1
 Open House Meeting
 Agneya 2017
 Internal Test 2
 PPTIA 2017Curtain Raiser
 Blood Donation
 SSET Staff Badminton Tournament
 - : Christmas Celebration

Principal

25/6/2017

Schedule of Activities January 2018 - June 2018

2nd and 3rd Feb 2018 16-02-2018 7th -9th Feb 2018 26th -28th Feb 2018 02-03-2018

12th to 20thMarch 2018 19th,21st&23rd March 2018 24th,26th& 28th 6th and 7th April 2018 4th June 2018 20th June 2018

18/12/2017

:Dr. PPTIA 2017 :IEE Ascendio :Internal exam 1 (S₂,S₄,S₆) :Internal exam 1 (S₈) :Blood Donation :Dr. PPT Memorial all Kerala Volley ball Tournament (Mens & Womens) :Internal exam 2 (S₂,S₄,S₆,S₈) :Model Exam (S₁) :Igniz 2017 :World Environment Day :Dr. PPTIA 2018 Curtain Raiser

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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY Vidya Nagar, Karukutty - 683 582

Time Table w.e.f 01-01-2018

COMPUTER SCIENCE & ENGINEERING -2 (S2)

| | 1 | 2 | 3 | | 4 | 5 | 6 | 7 |
|------|---------------|----------------|----------------|-------------|---------------|--------------|-------------|--------------|
| Day | 9:15 to 10.05 | 10:05 to 10:55 | 11:05 to 12:00 | 1 | 12.45 to 1.35 | 1.35 to 2.25 | 2.35 to3:25 | 3.25 to 4.20 |
| Mon. | СР | EG | DE | U N | BCE | PHY | MATHS | DE |
| Tue | PHY | MATHS | СР | C H | BCE | E | G | СР |
| Wed | MATHS | СР | DE | В | BCE | CP | /CE(BO/MN | G*) |
| Thu | BCE | PHY | DE | R E A | PHY | MATHS | E | G |
| Fri | PHY/CF | P/CE (STV*/B | O/MNG) | К | EG | СР | PHY | ENG |

| | <u>Subject</u> | _ | Name of Faculty |
|-------|-----------------------------|-----|-----------------|
| MATHS | Calculus | MT | Mini Tom |
| PHY | Engg. Physics | STV | Sruthi T V |
| EG | Engineering Graphics | VP | Dr. Venu P |
| DE | Design & Engineering | BRN | Balu R Nair |
| СР | Computer Programming | во | Bini Omman |
| BCE | Basics of Civil Engineering | СМ | Chelsa Mariam |
| ENG | English | JT | Jane Theresa |

Saturday's Time table will be on a rotation basis (Monday to Friday) and will be intimated well in advance.

PRINCIPAL

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY Vidya Nagar, Karukutty - 683 582 <u>Time Table w.e.f 01-08-2019</u> ELECTRONICS & COMMUNICATION ENGINEERING (S3)

| | 1 | 2 | 3 | 4 | | 5 | 6 | 7 |
|------|-----------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Day | 8.45-9.40 | 9.40-10.35 | 10.45-11.35 | 11.35-12.25 | | 1.10 - 2.05 | 2.15 - 3.05 | 3.05 - 4.00 |
| Mon. | LCD | EC | LACA | SSD | L U | | EDA LAB | |
| Tue | EC | NT | LACA | BE | N C H | NT | SSD | LCD |
| Wed | NT | LACA | SSD | EC | B | LCD | LACA (T) | EC |
| Thu | LCD | EC | SSD | NT | E A K | BE | LACA | SSD(T) |
| Fri | LCD | | EDC LAB | - | | BE | NT(T) | EC(T) |

| | Subject Cod | le <u>Subject</u> | | Name of Faculty | |
|---------|-------------|-----------------------------------|-------|----------------------------|--|
| Maths | MA201 | Linear Algebra & Complex Analysis | SC | Sophia Cleetus | |
| NT | EC201 | Network theory | PNP | Prathibha N Pillai | |
| SSD | EC203 | Solid State Devices | PM | Parvathy M. | |
| EC | EC205 | Electronic Circuits | DB | Deepa B. | |
| LCD | EC207 | Logic Circuit Design | JK | Jerry Kuriakose | |
| BE | HS200 | Business Economics | SM | Subbaiyya M | |
| EDC LAB | EC231 | Electronic Devices & Circuits Lab | UN | Deepa B*., Uma N. | |
| LAB | EC233 | Electronic Design Automation Lab | V*,SL | Anandhi V*., Srilekshmi M. | |

PRINCIPAL

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY Vidya Nagar, Karukutty - 683 576 <u>Time Table w.e.f. 22-03-2021</u> ELECTRICAL & ELECTRONICS ENGINEERING (S6)

| | 1 | 2 | 3 | | 4 | 5 (OFFLINE) |
|------|--------------|------------------|---------------|-------|------------------|---------------|
| Day | 9.00 to 10am | 10.10 to 11.10am | 11.20-12.20pm | | 1.20pm to 2.20pm | 2.30pm-3.30pm |
| Mon. | EMT | ACT | PSA | | S & C LAB | POM |
| Tue | ACT | POM | EMT | LUNCH | PSA | ED |
| Wed | PSA | ED | ACT | BREAK | PED LAB | BMI |
| Thu | ED | BMI | POM | | EMT | ACT |
| Fri | EMT | PSA | BMI | | ACT | PSA |
| Sat | BMI | ED | POM | | CE | EMT |

| | | | | | Google Classroom |
|---------|-------------|-------------------------------|-----------|------------------------------------|---------------------|
| | Course Code | Course Name | Name of | Faculty | code |
| EMT | EE 302 | Electromagnetics | DNK | Dr. Divya Nath K | vvjk2ri |
| ACT | EE 304 | Advanced Control Theory | LCR | Lakshmi C.R | 5zgbolt |
| PSA | EE 306 | Power System Analysis | JS | Jayalakshmi S | uh4ckv7 |
| ED | EE 308 | Electric Drives | NKM | Dr. Nandakumar M | ijcnmux |
| POM | HS 300 | Principles of Management | AVT | Anjana Vishwanath | 3nkck5q |
| LECTIVE | EE 372 | Biomedical Instrumentation | VJ | Varun Jose | zgtvrrn |
| S&C LAB | EE332 | Systems & Control Lab | DNK*, PV | Dr. Divya Nath K & Priya Venugopal | ou5vlre |
| PED LAB | EE334 | Power Electronics & Drives La | LB* & JS | Lekshmi Banu & Jayalakshmi S | hp2pzm4 |
| CE | EE352 | Comprehensive Exam | JS * & BP | Jayalakshmi S Beena Puthillath | k2xagc3 |

PRINCIPAL

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY VIDYA NAGAR, KARUKUTTY, ERNAKULAM - 683 582



COURSE DIARY

THEORY

Programme.....B.Tech

| Name of Faculty | Bini Omman |
|--------------------------|--------------------------------------------|
| Mobile No. | 8281371594 |
| Designation & Department | Asst Projence in CSE |
| Course Code | CSIDO |
| Course Name | Compulei Programming |
| Semester & Year | 2rd Semertie 2018 |
| Branch & Batch | CSE; Batch 17 |
| Semester Duration | From: 1st January dors To: 12th April dors |

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| 3 | | cb | | | |
| 2 | | | cP | | |
| - | cP | | | | |
| Day | Monday | Tuesday | Wednesday | Thursday | Friday |

SCHEDULE OF WORK

| Þ | Studer | nt performance should be eveluated solely on an academic basis. |
|---|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Þ | Studer | nt's evaluation should be fair, consistent, transparent and accountable. |
| Þ | Evalue | ation of student's performance should be disclosed to the students. |
| | 1. | Keep the Course Diary up to date by clearly indicating the subject coverage and students attendance on the relevent pages. |
| | 2. | Paste the syllabus in the relevant page. |
| | 3. | Write / Paste the Course plan in the relevent page. |
| | 4. | Events in a semester such as Series Test Days, Cultural / Celebration Days, days for extra co-curricular activities etc. may be indicated in the Year Calendar. |
| | 5. | Assignment details may be written in the Course Diary or may be filed in the Course File. |
| | | Minimum 3 Nos. of assignments should be given. |
| | | (ii) Different sets of questions may be given in an assignment (atleast three) to a class. |
| | | (iii) Assignments may be in the form of written - closed / open book, individual / group, home assignment, or in the form of oral presentation, quiz, seminar etc. |
| | 6. | Show complete split up of sessional marks in the page "Particulars of Marks". Final sessional mark for each student should be equal to the sum of marks awarded for Assignments (10) and Class Tests (40). |
| | 7. | All the entries in the course diary must be, legibly written without overwriting and free of errors. |
| | 8. | The staff member will be responsible for the safe custody of the Course Diary and (s) he should return it to the HOD at the end of semester or earlier if (s) he leaves the department or discontinue the subject. |
| | 9. | Follow KTU regulations for computing sessional marks. |
| | | |
| | | PRINCIPAL |
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| Course No. | Course Name | L-T-P- Credits | Year of Introduction |
|-------------------|-----------------------------------------------|-----------------------|----------------------|
| CS100 | Computer Programming | 2-1-0 | 2016 |
| Course Objectives | s and the fundamental concept of C program | nming and use it in j | problem solving. |

Syllabus Introduction to C language; Operators and expressions; Sorting and searching; Pointers; Memory allocation; Stacks and Queues.

Course Outcomes

- 1. Identify appropriate C language constructs to solve problems.
- 2. Analyze problems, identify subtasks and implement them as functions/procedures.
- 3. Implement algorithms using efficient C-programming techniques.
- 4. Explain the concept of file system for handling data storage and apply it for solving problems
- 5. Apply sorting & searching techniques to solve application programs.

References

- 1. Rajaraman V., Computer Basics and Programming in C, PHI.
- 2. Anita Goel and Ajay Mittal, Computer fundamentals and Programming in C., Pearson.
- 3. Gottfried B.S., Programming with C, Schaum Series, Tata McGraw Hill.
- 4. Horowitz and Sahni, Fundamentals of data structures Computer Science Press.
- 5. Gary J. Bronson, ANSI C Programming, CENGAGE Learning India.
- 6. Stewart Venit and Elizabeth Drake, Prelude to Programming Concepts & Design, Pearson.
- 7. Dromy R.G., How to Solve it by Computer, Pearson.
- 8. Kernighan and Ritche D.M., The C. Programming Language, PHI.

| COURSE PLAN | | | |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------|
| Module | Contents | Contact Hours | Sem.ExamM arks;% |
| I | Introduction to C Language: Preprocessor directives, header files, data types and qualifiers. Operators and expressions. Data input and output, control statements. | 7 | 15% |

| u | Arrays and strings- example programs. Two dimensional arrays - matrix operations. Structure, union and enumerated data type. | 8 | 15% |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------|
| m | Pointers: Array of pointers, structures and pointers. Example programs using pointers and structures. | AM | 15% |
| 2 | FIRST INTERNAL EXAM | | Print and |
| IV | Functions – function definition and function prototype. Function call by value and call by reference. Pointer to a function –. Recursive functions. | 7 | 15% |
| | SECOND INTERNAL EXAM | | |
| v | Sorting and Scarching : Bubble sort, Selection sort, Linear Search and Binary search. Scope rules Storage classes. Bit-wise operations. | 6 | 20% |
| vı | Data files – formatted, unformatted and text files. Command line arguments – examples. | 7 | 20% |
| - | END SEMESTER EXAM | | C. HERRICAN |



COURSE INFORMATION & COURSE PLAN 5. CS100 Computer Programming



5.1 COURSE INFORMATION

Course Syllabus

| Course Code | Course Name | L-T-P-Credits | Year of Introduction |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|
| CS100 | COMPUTER PROGRAMMING | 2-1-0-3 | 2016 |
| Prerequis | sites: NIL | - | |
| Course of • To imp • To lear | bjectives: part knowledge about programming in C rn basics of PYTHON | | |
| Syllabus: and String Introduction | Introduction to Programming, Basic elements gs, Functions, Storage classes, Structures ar on to PYTHON | of C, Control statem nd Pointers, File Ma | ents in C, Arrays anagement in C, |
| Expected outcome: 1. Ability to design programs using C language 2. Ability to develop simple programs using PYTHON | | | |
| Text Bool T1. E. Ba T2. John V | xs: laguruswamy, <i>Programming in ANSI C</i> , Tata N V Guttag, <i>Introduction to Computation and Pro</i> | AcGraw Hill, New De | elhi <i>THON</i> , PHI |
| References: R1. Norton, Peter Norton's Introduction to Computers, Tata McGraw Hill, New Delhi R2. Byron S. Gottfried, Programming with C, Schaun Outlines-McGraw Hill R3. Ashok Kamthane, Programming with ANSI & Turbo C, Pearson Education R4. K.R Venugopal and S.R Prasad, Mastering C, Tata McGraw Hill R5. Kelly, Al & Pohl, A Book on C-Programming in C, 4 th Ed., Pearson Education | | | |



| COURSE PLAN | | | |
|-------------|----------|-------|----------------------|
| Module | Contents | Hours | Sem. Exam Marks % |



| Ι | Introduction to Progamming: Machine language, assembly language, and high level language, Compilers and assemblers. Flow chart and algorithm – Development of algorithms for simple problems Basic elements of C: Structure of C program – Keywords, identifiers, data types, operators and expressions, Input and Output functions | 5 | 15 |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----|
| II | Control statements in C: if, if-else, while, do-while and for statements, switch, break, continue, go to, and labels, Programming examples | 7 | 15 |
| | FIRST INTERNAL EXAM | INATION | |
| III | Arrays and Strings: Declaration, initialization, processing arrays and strings – two-dimensional and multi-dimensional arrays – application of arrays, Example programs | 7 | 15 |
| IV | Functions: Functions – declaring, defining and accessing functions – parameter passing methods – passing arrays to functions, Recursion | 7 | 15 |
| | SECOND INTERNAL EXAN | MINATION | |
| V | Structures: declaration, definition and initialization of structures, unions Pointers: Concepts, declaration, initialization of pointer variables, Accessing a Variable through its Pointer Chain of Pointers, Pointer Expressions, Pointer Increments and Scale Factor, Pointers and Arrays, Examples | 8 | 20 |
| VI | FileManagement:Fileoperations,Input/Output Operations on Files, RandomAccess to Files, File pointerIntroduction to PYTHON:Basic Syntax,Operators,controlstatements,functions-examples | 8 | 20 |



QUESTION PAPER PATTERN (End Semester Examination)

Part A: 8 questions

One question from each module of Module I-IV; and two each from Module V & VI. Student has

to answer all questions: (8x5) = 40

Part B: 3 questions uniformly covering modules I & II

Student has to answer any 2 questions: (2x10) = 20

Part C: 3 questions uniformly covering modules III & IV

Student has to answer any 2 questions: (2x10) = 20

Part D: 3 questions uniformly covering modules V & VI

Student has to answer any 2 questions: (2x10) = 20

Note: Each question can have maximum of 4 sub questions, if needed.

COURSE OBJECTIVES

| 1. | To impart knowledge about programming in C |
|----|--------------------------------------------|
| 2. | To learn basics of PYTHON |

COURSE OUTCOMES

| Sl. No. | Course Outcomes | Bloom's Taxonomy Level |
|---------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| CS100.1 | Understanding about the various programming constructs used in C programming | Level 1 |
| CS100.2 | Thorough understanding of one dimensional and two dimensional arrays and will be able to use it for solving real world problems | Level 1 & Level 4 |
| CS100.3 | familirization of pointers and its implementation | Level 3 |



| CS100.4 | Will be able to analyze problems, identify subtasks and implement it using functions. | Level 2 & Level 3 |
|---------|----------------------------------------------------------------------------------------------------------------------------------|----------------------|
| CS100.5 | Familirization of storage classes in C and will be able to apply various sorting and searching for various application programs. | Level 3 |
| CS100.6 | Understanding about the various programming constructs used in C programming | Level 3 |

CO-PO MAPPING

| PO CO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | РО 7 | PO 8 | PO 9 | PO 10 | РО 11 | PO 12 |
|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|
| CS100.1 | 2 | | 2 | 2 | | | | | | | | 1 |
| CS100.2 | 2 | 2 | 3 | 2 | | | | | | | | 1 |
| CS100.3 | 2 | 2 | 3 | 2 | | | | | | | | 1 |
| CS100.4 | 2 | 2 | 3 | 2 | | | | | | | | 1 |
| CS100.5 | 2 | 2 | 2 | 2 | | | | | | | | 1 |
| CS100.6 | 2 | 2 | 3 | 2 | | | | | | | | 1 |
| CS100 | | | | | | | | | | | | |
| (overall level) | 2.00 | 2.0 | 2.7 | 2.0 | | | | | | | | 1.0 |

CO-PSO MAPPING

| PSO CO | PSO 1 | PSO 2 | PSO 3 |
|-----------|----------|----------|----------|
| CS100.1 | 2 | | |
| CS100.2 | 2 | 1 | |
| CS100.3 | 2 | 2 | 2 |
| CS100.4 | 2 | 2 | |
| CS100.5 | 2 | 3 | 1 |

Note: (Applicable to CO-PO Mapping and CO-PSO Mapping as well)

- 1-Slight (Low)
- 2 Moderate (Medium)
- 3 Substantial (High)
- '-' No correlation



| CS100 | | | |
|----------|---|---|---|
| (overall | | | |
| level) | 2 | 1 | 1 |

JUSTIFICATIONS FOR CO-PO MAPPING

| Mapping | Low/Medium/High | Justification |
|----------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CS100.1 – PO2 | 2 | Students can select appropriate C language construct while analyzing engineering problems. |
| CS100.1 – PO3 | 2 | Students can develop solutions for complex engineering problems by selecting appropriate C language construct. |
| CS100.1 – PO4 | 2 | Students can select appropriate C language construct for synthesis and interpretation of data. |
| CS100.1 – PO12 | 2 | Students can recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. |
| CS100.1 – PSO1 | 2 | Can apply knowledge of mathematics, science, engineering and computer science fundamentals to solve complex computational problems |
| CS100.2 – PO1 | 2 | Students can develop solutions for complex engineering problems with the knowledge of arrays. |
| CS100.2 – PO2 | 2 | Students can analyze problems, identify subtasks and implement them as functions/procedures, while analyzing engineering problems. |
| CS100.2 – PO3 | 2 | Students can develop solutions for complex engineering problems by implementing them as functions. |
| CS100.2 – PO4 | М | Students can use functions for the design of experiments. |
| CS100.2 – PO5 | L | Student can Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools |
| CS100.2 – PSO1 | М | The ability to identify, analyze and design solutions for complex engineering problems in multidisciplinary |



| | | areas by understanding the core principles and concepts of computer science and thereby engage in national grand challenges |
|----------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CS100.2 – PSO2 | М | The ability to acquire programming efficiency by designing algorithms and applying standard practices in software project development to deliver quality software products meeting the demands of the industry. |
| CS100.2 – PSO3 | L | The ability to apply the fundamentals of computer science in competitive research and to develop innovative products to meet the societal needs thereby evolving as an eminent researcher and entrepreneur. |
| CS100.3 – PO2 | М | Students can develop algorithms leading to implementation of efficient C-programs while analyzing problems. |
| CS100.3 – PO3 | М | Students can implement algorithms of complex engineering problems using efficient C programs. |
| CS100.3 – PO4 | М | Students can conduct investigation of complex problems by implementing the algorithms in C language. |
| CS100.3 – PO5 | L | Student can Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools. |
| CS100.3 – PSO1 | М | The ability to identify, analyze and design solutions for complex engineering problems in multidisciplinary areas by understanding the core principles and concepts of computer science and thereby engage in national grand challenges. |
| CS100.3 – PSO2 | М | The ability to acquire programming efficiency by designing algorithms and applying standard practices in software project development to deliver quality software products meeting the demands of the industry. |
| CS100.3 – PSO3 | L | The ability to apply the fundamentals of computer science in competitive research and to develop innovative products to meet the societal needs thereby evolving as an eminent researcher and entrepreneur. |



| CS100.4 – PO1 | 2 | Students can develop solutions for complex engineering problems with the knowledge of arrays. |
|----------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CS100.4 – PO2 | 2 | Students can analyze problems, identify subtasks and implement them as functions/procedures, while analyzing engineering problems. |
| CS100.4 – PO3 | 2 | Students can develop solutions for complex engineering problems by implementing them as functions. |
| CS100.4 – PO4 | 2 | Students can use functions for the design of experiments. |
| CS100.4 – PSO1 | 2 | The ability to identify, analyze and design solutions for complex engineering problems in multidisciplinary areas by understanding the core principles and concepts of computer science and thereby engage in national grand challenges. |
| CS100.5 – PO1 | 2 | Students can develop solutions for complex engineering problems by selecting appropriate sorting and searching algorithms. |
| CS100.5 – PO2 | 2 | Students can select appropriate storage classes for synthesis and interpretation of data. |
| CS100.5 – PO3 | 2 | Students will be able to use searching and sorting techniques for the development of solutions. |
| CS100.5 – PO4 | 2 | Students can apply different searching and sorting techniques for the development solutions. |
| CS100.5 – PO12 | 2 | Student can Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools. |
| CS100.5 – PSO1 | 2 | The ability to identify, analyze and design solutions for complex engineering problems in multidisciplinary areas by understanding the core principles and concepts of computer science and thereby engage in national grand challenges. |
| CS100.5 – PSO2 | 2 | The ability to acquire programming efficiency by designing algorithms and applying standard practices in software project development to deliver quality software products meeting the demands of the industry. |



| CS100.5 - PSO32The ability to apply the fundamentals of science in competitive research and to innovative products to meet the societal need evolving as an eminent researcher and entrep | computer develop ls thereby reneur. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|

GAPS IN SYLLABUS

| Sl. No. | Gap | Action Taken | Date – Month - Year | Resource Person with Designation | Percentage of Students | Relevance to POs | Relevance to PSOs |
|------------|-----|-----------------|---------------------------|-------------------------------------------|------------------------------|---------------------|----------------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Proposed Actions:

INSTRUCTIONAL METHODOLOGIES

- 1. Chalk & Talk
- 2. LCD/SMART Boards
- 3. Student Assignments
- 4. Student Seminars
- 5. Web Resources
- 6. Add-on Courses

DIRECT ASSESSMENT METHODOLOGIES

- 1. Assignments
- 2. Student Seminars
- 3. Tests/Model Exams
- 4. University Examination



- 5. Student Lab Practice
- 6. Student Viva
- 7. Mini/Major Projects
- 8. Certifications
- 9. Add-on Courses
- 10. Others

INDIRECT ASSESSMENT METHODOLOGIES

- 1. Assessment of Course Outcomes (By Feedback, Once)
- 2. Student Feedback on Faculty (Twice)
- 3. Assessment of Mini/Major Projects by External Experts
- 4. Others

CONTENT BEYOND SYLLABUS

- 1. Introduction to Embedded C
 - Difference between C and Embedded C
 - Programming style
 - Basic structure of C program
- 2. Arduino Programming
 - Program notation: variables, functions, control flow, Arduino conventions
 - The concept of a program variable
 - Numerical values and basic numerical operators
 - if/then/else
 - Iteration using for loops



• Real world timing and the delay() function

E-CONTENT (Additional learning)

1. <u>https://www.programiz.com/c-programming</u>

Learn C (Introduction and Tutorials to C programming) - Programiz

2. https://nptel.ac.in/courses/106104128/

Introduction to Programming in C (video lecture series coordinated by IIT Kanpur)

3. https://nptel.ac.in/courses/115104095/

Computational Science and Engineering using PYTHON (video lecture series coordinated by IIT Kanpur)

4. <u>https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-00-introduction-t</u> o-computer-science-and-programming-fall-2008/video-lectures/

Introduction to Computer Science and Programming – MITOPENCOURSEWARE, Massachusetts Institute of Technology

| | Sessi | on | Topics | Chapter/Book |
|----------|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| | | | MODULE I (Introduction to Programming, Basic Elements of C) To impart knowledge about C fundamentals such as identifiers, operators | |
| Hou | ırs as pe | r syllabus | | |
| Date | Period | Duration | | |
| Aug 2 | 1 | 1 hour | Machine language, assembly language, and high level language | T1 |
| Aug 2 | 2 | 1 hour | Compilers and assemblers | T1 |

5.2 SESSION PLAN



| Aug 2 | 7 | 1 hour | Flow chart | R1 |
|-----------------------|---------------|------------|---------------------------------------------------------------------------------------|--------------|
| Aug 3 | 1 | 1 hour | Algorithm – Development of algorithms for simple problems | R2 |
| Aug 6 | 4 | 1 hour | Structure of C program - Keywords, Identifiers, data types, Operators and expressions | T1 |
| Aug 6 | 6 | 1 hour | Input and Output functions | T1 |
| Total | hours pl | lanned: 5 | | |
| | Sessi | on | Topics | Chapter/Book |
| | | | MODULE II | |
| | | | (Control statements in C) | |
| | | | To impart idea about different branching statements and looping statements | |
| Hou | rs as pei | r svllabus | unu tooping suitements | |
| Date | Period | Duration | | |
| Sep 3, Sep 6 | 4, 6, 7, 1 | 4 hours | if, if-else, while, do-while | T2 |
| Sep 7 | 1 | 1 hour | for statement, switch, break, continue, go to and labels | R3 |
| Sep 10 | 4, 6 | 2 hours | Programming examples | T2 |
| Total | hours pl | lanned: 7 | | |
| | Sessi | on | Topics | Chapter/Book |
| | | | MODULE III | |
| | | | (Arrays and Strings) | |
| | | | To develop C programs using the concepts such as arrays and strings | |
| Hou | rs as pei | r syllabus | uruys unu su mgs | |
| Date | Period | Duration | | |



| Sep 174, 62 hoursTwo-dimensional and multi-dimensional arraysR4Sep 2771 hourApplication of arraysT2Sep 28, 391, 42 hoursProgramming examplesT1Total - urs paret: 7Total - urs paret: 7To learn to develop modular C programs using functionsTo learn to develop modular C programs using functionsT1Out 0ct 1Parameter passing methods - passing arrays to functionsT2Oct 4,71 hourParameter passing methods - passing arrays to functionsT2Oct 4,71 hourRecursion, Storage classes - extern, auto, register and staticR5Oct 6, 0ct 114 hoursExample programsR4SessionTopicsChapter/Book | Sep 13, Sep 14 | 7, 1 | 2 hours | Declaration, initialization, processing arrays and strings | T1 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------|------------|----------------------------------------------------------------|--------------|
| Sep 2771 hourApplication of arraysT2Sep 28, Sep 291,42 hoursProgramming examplesT1Total Jume 1: 7Total TopicsChapter/BookMODULE IV (Functions)To learn to develop modular C programs using functionsT1Oct 4, 62 hoursDeclaring, defining, and accessing functionsT1Oct 4, 71 hourParameter passing methods – passing arrays to | Sep 17 | 4,6 | 2 hours | Two-dimensional and multi-dimensional arrays | R4 |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | Sep 27 | 7 | 1 hour | Application of arrays | T2 |
| Total Hours planned: 7TopicsChapter/BookSessionChapter/BookMODULE IV (Functions)Chapter/BookHours as per syllabusTo learn to develop modular C programs using functionsOutPeriodDurationOct 4, 62 hoursDeclaring, defining, and accessing functionsT1Oct 4, 7Parameter passing methods – passing arrays to functionsT2Oct 5, | Sep 28, Sep 29 | 1, 4 | 2 hours | Programming examples | T1 |
| SessionTo priceChapter/BookSessionChapter/BookMODULE IV (Functions)Chapter/BookHours as per syllabusTo learn to develop modular C programs using functionsDatePeriodDurationChapter/BookOct4, 62 hoursDeclaring, defining, and accessing functionsT1Oct71 hourParameter passing methods – passing arrays to functionsT2Oct11hourRecursion, Storage classes – extern, auto, register and staticR5Oct2, 4, 6, 74 hoursExample programsR4Total loursTopicsChapter/BookCot2, 4, 6, 74 hoursExample programsChapter/BookTotal loursSessionTopicsChapter/Book | Total | hours p | anned: 7 | | |
| MODULE IV (Functions)To learn to develop modular C programs using functionsTo learn to develop modular C programs using functionsDatePeriodDurationOct4, 62 hoursDeclaring, defining, and accessing functionsT1Oct71 hourParameter passing methods – passing arrays to functionsT2Oct11hourRecursion, Storage classes – extern, auto, register and staticR5Oct2, 4, 6, 74 hoursExample programsR4Total workKample programsR4Total workChapter/BookMODULE V | | Sessi | on | Topics | Chapter/Book |
| (Functions) To learn to develop modular C programs using functions To learn to develop modular C programs using functions Date Period Duration Oct 4, 6 2 hours Declaring, defining, and accessing functions T1 Oct 7 1 hour Parameter passing methods – passing arrays to functions T2 Oct 1 1hour Recursion, Storage classes – extern, auto, register and static R5 Oct 2, 4, 6, 7 4 hours Example programs R4 Total Hours planned: 7 Total Works Topics Chapter/Book | | | | MODULE IV | |
| If year is a verify modular C programs using functions If year is a per syllabus Date Period Duration Oct 4, 6 2 hours Declaring, defining, and accessing functions T1 Oct 7 1 hour Parameter passing methods – passing arrays to functions T2 Oct 1 1hour Recursion, Storage classes – extern, auto, register and static R5 Oct 2, 4, 6, 7 4 hours Example programs R4 Oct 11 Ihour Example programs R4 Total hours planned: 7 | | | | (Functions) | |
| Hours as per syllabusImage: syllabusDatePeriodDurationImage: syllabusOct4, 62 hoursDeclaring, defining, and accessing functionsT1Oct71 hourParameter passing methods – passing arrays to functionsT2Oct11 hourRecursion, Storage classes – extern, auto, register and staticR5Oct2, 4, 6, 74 hoursExample programsR4Total hours planed: 7SessionTopicsChapter/Book | | | | functions | |
| DatePeriodDurationImage: constraint of the symbol of the | Hou | rs as pe | r syllabus | | |
| Oct 14, 62 hoursDeclaring, defining, and accessing functionsT1Oct 4,71 hourParameter passing methods – passing arrays to functionsT2Oct 511 hourRecursion, Storage classes – extern, auto, register and staticR5Oct 6, Oct 6, 0ct 112, 4, 6, 74 hoursExample programsR4Total hours planned: 7TopicsChapter/BookMODULE V | Date | Period | Duration | | |
| Oct 4,71 hourParameter passing methods – passing arrays to functionsT2Oct 511 hourRecursion, Storage classes – extern, auto, register and staticR5Oct 6, Oct 8,2,4, 6,74 hoursExample programsR4Total hours planned: 7Total hours planned: 7MODULE V | Oct 1 | 4, 6 | 2 hours | Declaring, defining, and accessing functions | T1 |
| Oct 511hourRecursion, Storage classes – extern, auto, register and staticR5Oct 6, | Oct 4, | 7 | 1 hour | Parameter passing methods – passing arrays to functions | T2 |
| Oct 6, Oct 112,4, | Oct 5 | 1 | 1hour | Recursion, Storage classes – extern, auto, register and static | R5 |
| Total hours planned: 7 Session Topics Chapter/Book MODULE V | Oct 6, Oct 8, Oct 11 | 2, 4, 6, 7 | 4 hours | Example programs | R4 |
| Session Topics Chapter/Book MODULE V | Total | hours p | anned: 7 | | |
| MODULE V | | Sessi | on | Topics | Chapter/Book |
| | | | | MODULE V | |



| | | | (Structures, Pointers) | |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| | | | To impart knowledge about structures, unions, and pointers | |
| Hou | rs as pei | r syllabus | | |
| Date | Period | Duration | | |
| Oct 12, Oct 15, Oct 20 | 1, 4, 6, 2 | 4 hours | Structures: declaration, definition and initialization of structures, unions Pointers: Concepts, declaration, initialization of pointer variables | T1 |
| Oct 22 | 4,6 | 2 hours | Accessing a Variable through its Pointer Chain of Pointers, Pointer Expressions | T1 |
| Oct 25 | 7 | 1 hour | Pointer Increments and Scale Factor, Pointers and Arrays | R2 |
| Oct 26 | 1 | 1 hour | Examples | R2 |
| Total | hours pl | anned: 8 | • | |
| Session | | | | |
| | Sessi | on | Topics | Chapter/Book |
| | Sessi | on | Topics MODULE VI | Chapter/Book |
| | Sessi | on | TopicsMODULE VI(File Management, Introduction to PYTHON)To have a clear idea of different file operations and to learn to develop C programs performing file operations, To familiarize the basic concepts of PYTHON | Chapter/Book |
| Hou | Session Sessio | on r syllabus | Topics MODULE VI (File Management, Introduction to PYTHON) To have a clear idea of different file operations and to learn to develop C programs performing file operations, To familiarize the basic concepts of PYTHON | Chapter/Book |
| Hou Date | Sessie rs as per Period | on syllabus Duration | Topics MODULE VI (File Management, Introduction to PYTHON) To have a clear idea of different file operations and to learn to develop C programs performing file operations, To familiarize the basic concepts of PYTHON | Chapter/Book |
| Hou Date Oct 29 | Sessie rs as per Period 4, 6 | on r syllabus Duration 2 hr | Topics MODULE VI (File Management, Introduction to PYTHON) To have a clear idea of different file operations and to learn to develop C programs performing file operations, To familiarize the basic concepts of PYTHON File Management – File operations | Chapter/Book |
| Hou Date Oct 29 Nov 1, Nov 2 | Sessie rs as per Period 4, 6 7, 1 | on r syllabus Duration 2 hr 2 hr | Topics MODULE VI (File Management, Introduction to PYTHON) To have a clear idea of different file operations and to learn to develop C programs performing file operations, To familiarize the basic concepts of PYTHON File Management – File operations Input/Output Operations on Files | Chapter/Book T2 T2 |



| Nov 8 | | | | |
|------------------------|---|------|-------------------------------------------------------------------------------------------|----|
| Nov 9 | 1 | 1 hr | Introduction to PYTHON: Basic Syntax, Operators, control statements, functions – examples | T2 |
| Total hours planned: 8 | | | | |

5.3 TUTORIAL QUESTIONS

Module 1

1. Write a code to print the words "Hello World".



#include <stdio.h>

int main () {

printf ("Hello, World! \n");

return 0;

}

2. Write a code where variables have been declared at the top, but they have been defined and initialized inside the main function.

#include <stdio.h>

// Variable declaration:

extern int a, b;

extern int c;

extern float f;

int main () {

```
/* variable definition: */
int a, b;
int c;
```



float f;

/* actual initialization */ a = 10; b = 20;

c = a + b;

printf("value of c : d n", c);

f = 70.0/3.0; printf("value of f : %f \n", f);

```
return 0;
```

```
}
```

3. How do you implement 'const' in a code?

#include <stdio.h>

```
int main() {
  const int LENGTH = 10;
  const int WIDTH = 5;
  const char NEWLINE = '\n';
  int area;
  area = LENGTH * WIDTH;
```


printf("value of area : %d", area);
printf("%c", NEWLINE);

return 0;

}

Module 2

4. Write a function to return the maximum between two numbers.

/* function returning the max between two numbers */
int max(int num1, int num2) {

```
/* local variable declaration */
int result;
```

```
if (num1 > num2)
  result = num1;
else
  result = num2;
return result;
}
```

5. How do you call a function? Explain with a code.



#include <stdio.h>

/* function declaration */
int max(int num1, int num2);

int main () {

/* local variable definition */
int a = 100;
int b = 200;
int ret;
/* calling a function to get max value */
ret = max(a, b);

printf("Max value is : %d\n", ret);

```
return 0;
```

```
}
```

/* function returning the max between two numbers */

```
int max(int num1, int num2) {
```

```
/* local variable declaration */
```

int result;



```
if (num1 > num2)
  result = num1;
else
  result = num2;
```

```
return result;
```

```
}
```

6. Explain nesting of for loop with a code.

```
#include <stdio.h>
int main()
{
    for (int i=0; i<2; i++)
    {
        for (int j=0; j<4; j++)
        {
            printf("%d, %d\n",i ,j);
        }
        return 0;
}</pre>
```

7. Write a code to print two numbers with while loop.



```
#include <stdio.h>
main()
{
    int m = 5;
    int n = 0;
    while (m > n)
    {
        printf("m = %d n = %d\n",m,n );
        m--;
        n++;
    }
}
```

8. Write a code signifying switch statement.

```
#include <stdio.h>
int main()
{
    int x = 2;
    switch (x)
    {
    case 1: printf("Choice is 1");
    break;
    case 2: printf("Choice is 2");
    break;
```



```
case 3: printt("Choice is 3");
break;
default: printf("Choice other than 1, 2 and 3");
break;
}
return 0;
```

```
}
```

9. Explain goto statement with a code.

```
#include <stdio.h>
```

#define MAX 10

int main()

{

int needle;

/* get input from user*/
printf("Please enter a number (0-10):");
scanf("%d",&needle);

```
int i;
for(i = 0; i < MAX;i++)
{
```



```
if(i == needle)
{
    goto end;
}
else
{
    printf("Current number %d\n",i);
}
printf("Loop terminated normally.");
```

```
end: printf("Jumped from the goto statement\n");
```

```
return 0;
```

}

Module 3

10. How can we declare, assign and access arrays?

#include <stdio.h>

#define MAX 10

int main()



```
{
```

int needle;

```
/* get input from user*/
printf("Please enter a number (0-10):");
scanf("%d",&needle);
```

```
int i;
```

```
for(i = 0; i < MAX;i++)
{
    if(i == needle)
    {
        goto end;
    }
    else
    {
        printf("Current number %d\n",i);
}</pre>
```

```
printf("Loop terminated normally.");
```

```
end: printf("Jumped from the goto statement\n");
```

return 0;

}

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```
}
```

11. Write a code to find the average of n (n < 10) numbers using arrays.

```
#include <stdio.h>
int main()
{
  int marks[10], i, n, sum = 0, average;
  printf("Enter n: ");
  scanf("%d", &n);
   for(i=0; i < n; ++i)
   {
     printf("Enter number%d: ",i+1);
     scanf("%d", &marks[i]);
      sum += marks[i];
   }
   average = sum/n;
  printf("Average = %d", average);
   return 0;
}
```

12. Write a C program to find the sum of two matrices of order 2*2 using multidimensional arrays.



```
#include <std10.h>
int main()
{
    float a[2][2], b[2][2], c[2][2];
    int i, j;
```

// Taking input using nested for loop

```
printf("Enter elements of 1st matrix\n");
for(i=0; i<2; ++i)
for(j=0; j<2; ++j)
{
        printf("Enter a%d%d: ", i+1, j+1);
        scanf("%f", &a[i][j]);
}</pre>
```

```
// Taking input using nested for loop
```

```
printf("Enter elements of 2nd matrix\n");
for(i=0; i<2; ++i)
for(j=0; j<2; ++j)
{
    printf("Enter b%d%d: ", i+1, j+1);
    scanf("%f", &b[i][j]);
}</pre>
```

// adding corresponding elements of two arrays



```
for(i=0; 1<2; ++1)
for(j=0; j<2; ++j)
{
c[i][j] = a[i][j] + b[i][j];
}
```

// Displaying the sum
printf("\nSum Of Matrix:");

```
for(i=0; i<2; ++i)
for(j=0; j<2; ++j)
{
    printf("%.1f\t", c[i][j]);
    if(j==1)
    printf("\n");
    }
return 0;</pre>
```

```
}
```

Module 4

13. Write a code to display all prime numbers between two intervals.

#include <stdio.h>



```
int checkPrimeNumber(int n);
int main()
{
  int n1, n2, i, flag;
  printf("Enter two positive integers: ");
  scanf("%d %d", &n1, &n2);
  printf("Prime numbers between %d and %d are: ", n1, n2);
  for(i=n1+1; i<n2; ++i)
  {
    // i is a prime number, flag will be equal to 1
    flag = checkPrimeNumber(i);
    if(flag == 1)
       printf("%d ",i);
  }
  return 0;
}
// user-defined function to check prime number
int checkPrimeNumber(int n)
{
  int j, flag = 1;
```



```
for(j=2; j <= n/2; ++j)
{
    if (n%j == 0)
    {
      flag =0;
      break;
    }
}
return flag;</pre>
```

}

14. Write a program to find the sum of natural numbers using a recursive function.

```
#include <stdio.h>
int addNumbers(int n);
int main()
{
    int num;
    printf("Enter a positive integer: ");
    scanf("%d", &num);
```



```
printf("Sum = %d",addNumbers(num));
```

return 0;

}

```
int addNumbers(int n)
```

{

if(n != 0)

```
return n + addNumbers(n-1);
```

else

return n;

}

15. How do you pass an entire array to a function as an argument?

```
#include <stdio.h>
void myfuncn( int *var1, int var2)
{
    /* The pointer var1 is pointing to the first element of
    * the array and the var2 is the size of the array. In the
    * loop we are incrementing pointer so that it points to
```



```
* the next element of the array on each increment.
    *
    */
  for(int x=0; x<var2; x++)</pre>
  {
    printf("Value of var arr[%d] is: %d \n", x, *var1);
    /*increment pointer for next element fetch*/
    var1++;
  }
int main()
{
  int var arr[] = {11, 22, 33, 44, 55, 66, 77};
  myfuncn(var arr, 7);
   return 0;
}
```

Module 5

```
16. How do you store information of a student using structure?
```

```
#include <stdio.h>
struct student
```

{

}



char name[50];

int roll;

float marks;

} s;

int main()

{

printf("Enter information:\n");

printf("Enter name: ");

scanf("%s", s.name);

printf("Enter roll number: ");

scanf("%d", &s.roll);

printf("Enter marks: ");

scanf("%f", &s.marks);



printf("Displaying Information:\n");

printf("Name: ");

puts(s.name);

printf("Roll number: %d\n",s.roll);

printf("Marks: %.1f\n", s.marks);

return 0;

}

17. How do you declare a pointer and use it?

#include <stdio.h>
int main()
{



```
//Variable declaration
int num = 10;
```

```
//Pointer declaration
int *p;
```

//Assigning address of num to the pointer p p = #

```
printf("Address of variable num is: %p", p);
return 0;
```

```
}
```

18. Write a program to find the sum of six numbers with arrays and pointers.

```
#include <stdio.h>
int main()
{
    int i, classes[6],sum = 0;
    printf("Enter 6 numbers:\n");
    for(i = 0; i < 6; ++i)
    {
        // (classes + i) is equivalent to &classes[i]
        scanf("%d",(classes + i));
        // *(classes + i) is equivalent to classes[i]</pre>
```



```
sum += *(classes + 1);
}
printf("Sum = %d", sum);
return 0;
}
```

Module 6

19. How do you read name and marks of students and store it in a file.

```
#include <stdio.h>
int main()
{
    char name[50];
    int marks, i, num;

    printf("Enter number of students: ");
    scanf("%d", &num);

    FILE *fptr;
    fptr = (fopen("C:\\student.txt", "w"));
    if(fptr == NULL)
    {
        printf("Error!");
        exit(1);
    }
```



```
for(i = 0; i < num; ++i)
{
    printf("For student%d\nEnter name: ", i+1);
    scanf("%s", name);
    printf("Enter marks: ");
    scanf("%d", &marks);
    fprintf(fptr,"\nName: %s \nMarks=%d \n", name, marks);
    }
    fclose(fptr);
    return 0;
}</pre>
```

- 20. Write a python program to check whether a year is leap year or not.
 - # Python program to check if the input year is a leap year or not

```
year = 2000
```

To get year (integer input) from the user



year = int(input("Enter a year: "))

if (year % 4) == 0:

if (year % 100) == 0:

if (year % 400) == 0:

print("{0} is a leap year".format(year))

else:

print("{0} is not a leap year".format(year))

else:

print("{0} is a leap year".format(year))

else:

print("{0} is not a leap year".format(year))

21. Write a python program to multiply to matrices using nested loops.

Program to multiply two matrices using nested loops

3x3 matrix X = [[12,7,3], [4,5,6],

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[7,8,9]]# 3x4 matrix Y = [[5,8,1,2], [6,7,3,0], [4,5,9,1]] # result is 3x4 result = [[0,0,0,0], [0,0,0,0], [0,0,0,0]]

```
# iterate through rows of X
for i in range(len(X)):
    # iterate through columns of Y
    for j in range(len(Y[0])):
        # iterate through rows of Y
        for k in range(len(Y)):
        result[i][j] += X[i][k] * Y[k][j]
```

for r in result:

print(r)



5.4 PREVIOUS UNIVERSITY QUESTION PAPERS

E B3E049S Reg. No. Name: APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY THIRD SEMESTER B.TECH DEGREE EXAMINATION, JULY 2017 Course Code: EE207 Course Name: COMPUTER PROGRAMMING (EE) Max. Marks: 100 Duration: 3 Hours PART A Answer all Questions. 1. a. Compare between compiler and assembler. (3) b. Mention any four keywords and their meaning. (2)2. Illustrate the syntax of while statement with an example. (5) 3. Explain how to initialize a 1-D numeric array and character array with examples. (5) 4. a. Enumerate three advantages of using functions. (3) b. Give the purpose of return statement. (2)5. Compare structure and union. (5) 6. What are pointers? Why they are used? Illustrate with an example. (5) 7. Give the syntax of fopen and fscanf to read data from a file. Illustrate with an example. (5) 8. Discuss on arithmetic operators in python. Give one example each. (5) PART B Answer any two questions. 9. a. Draw the flowchart and develop the algorithm for finding the area of a triangle by reading three sides (5) b. Explain the different datatypes in C. (5) , 10. a. Discuss the break and continue statement in C with an example. (5) b. Write a C program to find the sum of digits of an integer, entered through the keyboard. (5) 11. a. Explain the syntax of switch statement with example. (5) b. Write a C program to find the sum of all even numbers between two limits. (5) PART C Answer any two questions.

 What are functions? Explains the different types of functions in detail with an example program for each type. (10)

Page 1 of 2

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| E | B3E049S | Pages: 2 |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| | 13. Write a C program to find the transpose of a matrix. | (10) |
| | 14. Explain the storage classes in C with appropriate example. | (10) |
| | | |
| | PART D | |
| | Answer any two questions. | |
| | 15. Compare structure and array and explain with an example. | (10) |
| | 16 White a Commentation of a Country of the state of Country of Co | Make use of speceture to |

| 16. Write a C program to sort a set of mark sheets of 6 subjects. Make use of strue | ture to |
|-------------------------------------------------------------------------------------|---------|
| develop the program and hence find the first three rank holders. | (10) |
| 17. a. Explain any five file handling functions and Illustrate with an example. | (5) |
| b. Explain the various data types in python. | (5) |

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E B3E047

Pages;2

Reg.No. Name: ______ API ABDUL KALAM TECHNOLOGI'CAL UNIVERSITY THIRD SEMESTER BTECH DEGREE EXAMINATION, JANUARY 2017 Course Code: EE 207 Course Name: COMPUTER PROGRAMMING (EE)

PART A

Anstver all question x, 5 inerts enrA

| 4, | a) Discuss various data types used in C with examples. | (3 marks) |
|----|-----------------------------------------------------------------------|---------------|
| | b) What do you juderstand, by the term Keyword? | (2 marks) |
| 2 | With suitable example discuss the use break and continue statements. | (5 marks) |
| 3. | What do you mean by arrays? How they are initialized with declaration | on. (5 marks) |
| 4 | With suitable example explain what you understand by recursion. | (5 marks) |
| 5. | Distinguish between structures and unions with ap example. | (5 Quarks) |
| d. | Describe pointer variables. | (5 marks) |
| 7. | Explain any 3 file handling operations in C programming, | (5 marks) |
| 8. | Explain how variables are declared in python. | (5 marks) |

PART B

| 9. Differentiate Machine Langijage, Assembly Language and High level | Language. |
|----------------------------------------------------------------------------|-------------|
| | (10 marks) |
| 10. Write the algorithm and diaw the flow chart to find the average height | of boys and |
| girls in a class from a given set of student data. | (10 marks) |
| 11. Discuss_while, do while and for statement using suitable examples. | (10 marks) |



E B3E047

Pages:2

PART C

sciender.onerim.questoils, 10 marks each

| 12. Write a C program, to sort the values of an array in descending order. | (10 marks) |
|-------------------------------------------------------------------------------|-------------|
| Write a C programs to find the transpose of a jijatrix. | (10 marks) |
| a) With proper exaining explain the storage classes in C. | (6 marks) |
| b) Differentiate the user defined and library functions. | (4 iriarks) |

PARTD

Aprilian and the questions. 10 marks each

| 15. Write a C. programs to perform the fille hand ling operation to read | series integer |
|--------------------------------------------------------------------------------|-------------------|
| ijilijiher, and write all odd ijjjjiher, to a file to be called OD D and eve | n iiiiiiibers, to |
| EVEN. | (10 marks) |
| 16. Using functions write a programs to swap the contents of two jijejjiory lo | cations. |
| | ("), 0 marks) |
| Write a python program to intake a sijiplecalculator. | (.10, marks) |

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| 1. | 3.01.2018 | 2,6 | Introduction to c language | chalk & board | IN SOL |
| a. | 4.01.2018 | 5 | Preprocenor duectives, header files | chalk of board | SAL AL |
| 3. | 5.01.2018 | 5 | Datatypes and Qualifeex | chalk & boaud | ARE |
| 4. | 8-01-2018 | 1 | Operators, Comparit & Variables | chalk & board | Sat |
| 5. | 9.01.2018 | 3,7 | Expressions - Arithmetic Expansion | Chalk & board | Set . |
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| 7. | 19.1.9018 | 5.5 | Control Starts - If 2 If - else | chalk 4 board | Sint |
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COURSE LOG

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ATTENDANCE PARTICULARS

| Date | Date Hour Roll No. of Absentees | | | | | |
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| 21.2.2018 | 2 | 28 | . 1 | 8106-10 8 |
| 29.9.9018 | 7 | 32,37,46 | F.C | 8106-10-0 |
| 23.2.2018 | 5 | 17, 10, 51, 37, 10 | | 8196-10-01 |
| 24-2-2018 | 3 | 4,33,49 . Fr . de. 11,8,1 | | 2106-10-61 |
| 26.2.2018 | P1 ,64 | 127,73, 2,6,00, d1, 01,00 | C | 514C -14-21 |
| 27-2-2018 | 7 | B. 24,86,21,P.F | 1. | 3100 10 C) |
| 28.2.2016 | 2 | 13, PA (FA .86. | 51 | 8136-10 41 |
| 1.3.2018 | 4 | 1,3,4,8,10,12, 15,16,7,19,21,22,44, | 29,32,33, | 36,37,41,-45,50 |
| 7.3.2018 | 2 | 35,37. 10 | . <i>Σ</i> ΄ | 8106-1-81 |
| 9.3.2018 | 5. | 16,23,37,502,22, HS, F, J | 5 | 8106.1.191 |
| 12.3 2018 | 1 (F. 1) | LING SELERITG OG IT IF A RE | ٤ | 8106-1-0% |
| 13.3.2018 | 3 | 23,30,37 | Fail | 8106-1486 |
| 13.3.2018 | 7 | 23, 30, 37 + 58, 58, 61, P | $\tilde{\gamma}_{e}^{+}$ | 8108-1-56 |
| 16.3.2018 | 5 | 141137 EAUPS | Ŧ.8. | 8106-1-08 |
| 17.3.2018 | 5 | 2,4,17,37,41, 38, FI,F | i | 8106:1-18 |
| 20.3.2018 | 3,7 | 37,42, 8E,FL,F | .1 | 8106-6-1 |
| 21.3. 2018 | 2 | 7,37,38,31,01,01,3,4,8,1 | · E. | 62.2018 |
| 26.3.2018 | 3 | 1,7,11,35,37, 3,7,4,6 | . 1 . | 106.6.61 |
| 27.3.2018 | 6,7 | 20,37,41,49 11.3. Fait. 6 | 5 | 8106 6181 |
| 28.3.2018 | 4 | A, 37 di 11 1816 | 1 | 8106-16 41 |
| 3.4 . 2018 | 3 | 7,8, 11,23,24,35,37, 38,39. | 40,48. | 15. 6.2018 |
| 9.4.2018 | 1 | 1,4,7-10,12,15,17,20,122, 32, 3 | 6, 37, 42, 4 | 3, 45, 50 6 11 |
| 10-4-2018 | 3 | 7,37,45 | je - | 8106-6-19 |

0.1

PARTICULARS OF MARKS

Semester & Branch/Year of Admission: So (SE

| 1.1.1 | an deserved for the definition | Assignment Marks | | | | ernal ests | Retest (if any) | | Internal Academic Assessment Marks | | |
|--------------|--------------------------------|---------------------|-----|-----|-------------------|----------------------|--------------------|--------------------|---------------------------------------|--------------------------------|--------------------|
| Class No. | Name | Max | Max | Max | Max mark 20 | s Max marks 20 | Max marks 20 | Max marks 40 | Assig nment Max 10 | Internal Tests Max 40 | Total Max 50 |
| 1 | Maneesh kijshon M | 10 | 2 | 3 | 11.3 | 104 | br | 204 | 115 | 22 | 32 |
| 2. | Maroja E | 10 | | | 17 | 20 | ante | a .1 | / pi | 37 | 47 |
| 3. | Mariya Raphel | 10 | | 1 | 16-4 | 18.4 | | q.M | ėį | 35 | 45 |
| 4. | Morro C. Anil | 10 | | | 19:0 | 104 | dens | M | April | 30 | 40 |
| 5. | Milna James | 10 | | | 7 | 11 | | - 7 | the | 18 | 28. |
| 6. | Mohammed Schaib VA | 10 | | | 4 | 8 | 19 | amA | 440 | 13 | 23 |
| 7. | Muhammad Saheer CV | 10 | | | 8 | 9 | | T | Ala | 17 | 27 |
| 8. | Neal A Vinod | 10 | | | 9.2 | 14-4 | TK | pro | -44 | 24 | 34 |
| 9. | Neethu Sunil | 10 | - | 1 | 11 | 16 | | a Hi | 2 de | 27 | 37 |
| 10 | Nimisha Manoj | 10 | 1 | | 9 | 9 | ozob | 4 | lin | 18 | 28 |
| 1 | Nivedya k.p | 10 | | | 7 | 15 | 100 | Ma | CINVR | 22 | 32 |
| 2. | Parvathi P.J | 10 | | 15 | 13 | 1/ | | in | 0.0 | 24 | 34 |
| 3. | Pooja S | 10 | 1 | | 11.2 | 124 | lona | 1 2 | 5ª | 24 | 34 |
| A . | Premkalshna Sujit | 10 | 12 | | 16 | 13 | 23 | Tan | as | 29 | 39 |
| 5. | Rahul K.R | 10 | | | 16 | 15 | "de | Bin | Vari | 31 | 41 |
| 6. | Ramachandran TH | 10 | | | 6 | 3 | 77 | B | jova | 13 | 23 |
| 7. | Rithweith S Nenon | ID | | | 8 | 10 | | linai | 9 | 18 | 28 |
| | Rizvana Vasmin Hashim | 10 | | | 13 | 17 | indul | 5 | plan | 30 | 40 |
| | Pahin Abraham | 10. | | | 10 | 16 | deir | Ha | pote | 26 | 36 |
| | Roban J. Therana | 10 | | | 172 | 144 | hop | Vilo | 200 | 32 | 42 |
| | shift Suit | D | - | | 10. | 9 | ci p | 12 | ave | 19 | 29 |
| 0 | | 10 | + | - | 11 | 16 | ric | 1 | and | 27 | 37 |

PARTICULARS OF MARKS and state of Branch American States

| Course | Name: Computer Pr | A | signm | ent | Inte | rnal sts | Retest (if any) | | Internal Academic Assessment Marks | | |
|--------------|-----------------------|---------|-------|--------|--------------------|--------------------|--------------------|--------------------|---------------------------------------|--------------------------------|--------------------|
| Class No. | Name | Max | Marks | Max | Max marks 20 | Max marks 20 | Max marks 20 | Max marks 40 | Assig nment Max 10 | Internal Tests Max 40 | Total Max 50 |
| | | 1 | 2 | 3 | 1 | 2 | | 1.1.1 | 10 | OF | 45 |
| 23. | Roshan Arasad | D | | | 164 | 184 | 1 150 | 421775 | erena | 20 | 40 |
| 24: | Saled V. Basheer | ID | | | 15 | 17 | | A | n o | 34 | 72 |
| d5. | Sanju M.P | 10 | 1. | | 16 | 18 | 1.94 | Raph | ppi V | 34 | 44. |
| 26. | Saranya N Nambiar | 10 | | | 6.4 | 13:2 | - 3(| A · | 0 - 66 | 90 | 30 |
| d7. | Sorath A | 10 | | | 14:4 | 16 | 2 | Jam | • IX | 30 | 40 |
| de. | Sarath Amay Nair | 10 | 1 | |)4 | 12 | diar | 1 Su | Smintel | 26 | 36 |
| 29. | Sarath J | io | 1 | 1 | 16.4 | 14-4 | metro | 2 6 | mmo | 31 | 44 |
| <30 . | Shallet Marci T Eldho | 10 | | | 14 | 14 | . b | Vini | A 1 | 28 | 38 |
| 31. | Shipa Sekhar | 10 | | | 15 | 16 | 13 | Sur. | urth | 31 | 41 |
| 21. | Shimil K Eldose | 10 | 1 | | 5.2 | 8.4 | jó | Ma | odair | 14 | 24 |
| .22 | Shravan Marci | 10 | 1 | . T | 12:4 | 9.2 | 9 | j - k | redya | ida | 32 |
| 34. | Simoo sain | 10 | | 1 1 | 113 | 18 | Ţ | p. | idinv | 31 | 4+ |
| .26 | Sneha S Nambiar | 10 | | | 8 | 9 | • | 2 | oja | 17 | 27 |
| 24. | Sahan James | 10 | 1 | | 4 | 4 | 19 | onde | is d m | 13 | 23 |
| 27 | Shirmy Bipesh | 10 | 1.1 | 1 | 0 | 1. | V | 9.3 | lod | Ra | H |
| 37. | Creanai B.R. | 10 | 1. | 1.14 | 6 | 411 | 120 | sibo | nacho | 13 | 23 |
| 38. | Cha Benou | JD | | 1.1 | 6.4 | 124 | H. | 2 | Seud | 19 | 29 |
| 39. | Skin Daning | 10 | | 1 | 13 | IK | II di | Vesn | nettel | 28 | 38 |
| 40. | Sumayya Sunay | h | | | 14 | 0 | | 1. 1 | | 22 | 3.8 |
| 41. | Swathy harish | 10 | | | 14 | 4 | (no | 10101 | - an | 31 | 44 |
| 42 . | Thomas Vilangadon | 10 | | | 10 | 12 1 | ADA @ | n | 11.1 | 21 | 1.1 |
| 13. | Varun S Nais | 10 | | la la | 14 | 11 | u | NX. | ditta | 34 | 41 |
| 4. | Vikhnesh krishna | 10 | | | 10 | 14 | . L) | by | Jawr | 24 | 34 |

So (SE)

| | | Assignment Marks | | | Internal Tests | | Retest | | Internal Academic Assessment Mark | | |
|-------------|-----------------|---------------------|-----|-----|--------------------|--------------------|--------------|--------------|--------------------------------------|--------------------------|--------------|
| 1855 No. | Name | Max ID | Max | Max | Max marks 20 | Max marks 20 | Max marks | Max marks | Assig nment Max | Internal Tests Max | Total Max |
| 1 | Vinau Arun Den | 1 | 2 | 3 | 1 | 2 | 1 | ~ | 10 | 40 | |
| 45 | Vipau Steephen | 10 | - | - | 8 | 14 | - | - | - | da | 32 |
| 46. | Vipil Varhers | 10 | | - | 6 | 11 | - | - | - | 17 | d7 |
| 47. | Nichow Grazidae | 10 | - | - | 10 | 12 | - | | - | 99 | 32 |
| 48. | Vision Dropidas | 10 | | | 6 | 11 | | - | | 17 | 27 |
| 49. | Vilin Di la | 10 | - | - | 14 | 14 | | | | 98 | 38 |
| 50. | Vishny Kaj K·R | 10 | - | - | u | 16 | | | | 27 | 37 |
| 51. | Vishnu 7 P | 10 | - | | 2 | 3 | 5 | | | 8 | 18 |
| | | | | | | 0 | | | | | |
| | | | | 1 | | | | - | | | |

MADKS

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, KARUKUTTY S2 Computer Science and Engineering - II (B17)

Consolidated Attendance

| From | n : 01/01/2018 to 12/04/2018 | - | | | | - | T | | | | CS170 | CE | 10 |
|-----------|------------------------------|-----------------------------------------|--------------|------------------------|-------------------------|------------|-------------|-------------------------|--------------------------------|----------------------------|-------------------------|-------|----------|
| | | Course Code | MA162 | PH100 | BE110 | BE1 | 02 | CS100 | CE100 | PH110 | CSIZO | | - |
| CLN o. | NAME | Roll No | Differential | Engineering Physics | Engineering Graphics | Design and | Engineering | Computer Programming | Basics of Civil Engineering | Engineering Physics Lab | Computer Programming | Civil | Workshop |
| | | 000/7790/17 | 94 | 95 | 92 | 9 | 3 | 94 | 90 | 100 | 100 | 1 | 00 |
| 1 | MANEESH KRISHNA M | 000000000000000000000000000000000000000 | 92 | 96 | 96 | 9 | 8 | 96 | 95 | 100 | 100 | 1 | 00 |
| 2 | MANOJA E | 000/7771/17 | 94 | 95 | 93 | 9 | 94 | 94 | 88 | 100 | 93 | 1 | 00 |
| 3 | MARIYA RAPHEL | SCSITTIN | 82 | 88 | 80 | 9 | 91 | 84 | 77 | 100 | 98 | + | 00 |
| 4 | MEERA C ANIL | SCS//610/11 | 02 | 90 | 99 | 1 | 00 | 97 | 97 | 100 | 100 | + | |
| 5 | MILNA JAMES | SCS/8051/1 | 95 | 97 | 92 | | 98 | 96 | 90 | 82 | 100 | + | 00 |
| 6 | MOHAMMED SUHAIB V A | SCS/7643/1 | 1 95 | 97 | 77 | | 80 | 79 | 82 | 100 | 85 | + | 30 |
| 7 | MUHAMMAD SAHEER C V | SCS/8057/1 | 7 70 | 85 | 81 | - | 81 | 84 | 80 | 100 | 78 | - | 00 |
| 8 | NEAL A.VINOD | SCS//63//1 | 7 04 | 96 | 95 | ; | 85 | 93 | 92 | 100 | 100 | | 00 |
| 9 | NEETHU SUNIL | SCS/8011/1 | 7 94 | 92 | 9 | | 93 | 93 | 88 | 100 | 90 | - | 80 |
| 10 | 0 NIMISHA MANOJ | SCSITEUSI | 7 9- | | 9 | 5 | 91 | 93 | 87 | 100 | 100 | | 80 |
| 1 | 1 NIVEDYA K P | SCS///48/ | 7 0 | | 8 | 9 | 89 | 93 | 87 | 100 | 10 | 2 | 100 |
| 1 | 2 PARVATHI P J | SCSII911 | 17 9 | | 1 9 | 2 | 96 | 93 | 90 | 100 | 93 | | 100 |
| 1 | 13 POOJA S | SCS/7613/ | 17 8 | 7 10 | | 8 | 98 | 97 | 97 | 100 | 10 | 0 | 86 |
| 1 | 14 PREMKRISHNA SUJIT | SCS/7597/ | 17 9 | | | | 91 | 93 | 88 | 100 | 0 10 | 0 | 100 |
| 1 | 15 RAHUL K R | SCS/7784/ | 17 9 | 2 9 | 2 3 | . + | 85 | 87 | 78 | 82 | 9 | 3 | 86 |
| - | 16 RAMACHANDRAN T H | SCS/7618/ | 17 8 | 5 8 | 3 0 | | 01 | 86 | 85 | 10 | 0 9 | 0 | 78 |
| - [| 17 RITHWIK S MENON | SCS/7630 | /17 8 | 89 8 | 7 8 | 37 | 100 | 94 | 95 | 10 | 0 10 | 00 | 100 |
| | 18 RIZWANA YASMIN HASHI | M SCS/7723 | /17 9 | 94 9 | 97 1 | 1 | 100 | 00 | 90 | 10 | 0 1 | 00 | 100 |
| 0 | 19 ROBIN ABRAHAM | SCS/7632 | /17 1 | 90 9 | 96 | 89 | 94 | | 9 | 10 | 0 8 | 5 | 100 |
| | 20 ROHAN J THEVARA | SCS/7801 | /17 | 89 | 87 | 96 | 8/ | | | 3 8 | 2 9 | 3 | 100 |
| t | 21 ROHITH SAJU | SCS/7631 | /17 | 87 | 89 | 93 | 94 | 9. | | 0 10 | 0 1 | 00 | 100 |
| t | 22 ROSEMOL BIJU | SCS/7830 | 0/17 | 95 | 92 | 91 | 94 | 90 | | 2 8 | 2 | 93 | 100 |
| ł | 23 ROSHAN PRASAD | SCS/8006 | 3/17 | 89 | 83 | 83 | 81 | 8 | | | 00 1 | 00 | 100 |
| ł | 24 SAFED V BASHEER | SCS/7584 | 4/17 | 97 | 99 | 98 | 98 | 9 | | | 00 | 00 | 100 |
| ł | 25 SANJU M P | SCS/758 | 2/17 | 95 | 97 | 98 | 96 | 9 | | | 00 | 100 | 100 |
| | 26 SARANYA M. NAMBIAR | SCS/760 | 6/17 | 95 | 99 | 95 | 94 | 9 | 9 5 | | 00 | 100 | 100 |
| | 27 CARATH A | SCS/802 | 2/17 | 94 | 96 | 93 | 94 | 1 9 | 17 1 | 92 1 | 00 | 100 | 100 |
| | OR CARATH AMAY NAIR | SCS/760 | 4/17 | 97 | 100 | 100 | 98 | 3 9 | 99 | 97 1 | 100 | 100 | 100 |
| | 20 SARATH AMATH I | SCS/776 | 8/17 | 82 | 91 | 82 | 8 | 5 9 | 91 | 80 | 100 | 92 | 100 |
| | 29 SARATH J | 0 SCS/77 | 73/17 | 98 | 96 | 98 | 10 | 0 1 | 97 | 97 | 100 | 100 | 100 |
| | 30 SHALLET WART I LEDIT | SCS/77 | 32/17 | 95 | 97 | 97 | 9 | 8 | 97 | 95 | 100 | 100 | 100 |
| | 31 SHILPA SEKHAR | SCS/76 | 35/17 | 90 | 91 | 89 | 9 | 3 | 87 | 87 | 75 | 81 | 100 |
| | 32 SHIMIL K ELDOSE | SCS/75 | 91/17 | 90 | 92 | 95 | 9 | 13 | 91 | 87 | 100 | 100 | 86 |
| | 33 SHRAVAN MANOJ | 303/15 | Juni | | | | | | | | | | |

| 1 | | Course Code | MA 102 | .PH100 | BE110 | BE102 | CS100 | CE100 | PH116 | CS120 | CE 110 |
|------|-------------------|-------------|---------------------------|------------------------|-------------------------|---------------------------|-------------------------|--------------------------------|----------------------------|--------------------------------|----------------------------------|
| an a | NAME | Roll No | Differential Equations | Engineering Physics | Engineering Graphics | Design and Engineering | Computer Programming | Basics of Civil Engineering | Engineering Physics Lab | Computer Programming Lab | Chill Engineering Workshop |
| _ | | SCS/7583/17 | 97 | 100 | 96 | 98 | 100 | 95 | 100 | 100 | 100 |
| 34 | SIMON SAJU | SCS/7096/17 | 87 | 91 | 92 | 89 | 90 . | 85 | 100 | 92 | 100 |
| 35 | SNEHA S NAMBIAR | 503/1990/11 | 01 | 00 | 00 | 83 | 86 | 85 | 75 | 81 | 86 |
| 36 | SOHAN JAMES | SCS/7581/17 | 84 | 60 | 00 | 60 | 54 | 57 | 57 | 43 | 71 |
| 37 | SOURAV BINESH | SCS/7628/17 | 56 | 58 | 41 | 09 | 07 | 88 | 86 | 89 | 100 |
| 38 | SREERAJ B R | SCS/8025/17 | 90 | 92 | 91 | 94 | 95 | 92 | 86 | 100 | 100 |
| 39 | STEN BENNY | SCS/8003/17 | 90 | 95 | 93 | 93 | 94 | 05 | 100 | 100 | 100 |
| 40 | SUMAYYA SUHAIL | SCS/7589/17 | 94 | 97 | 97 | 96 | 9/ | 02 | 86 | 97 | 86 |
| 41 | SWATHY HARISH | SCS/7588/17 | 81 | 86 | 91 | 93 | 8/ | 92 | 86 | 97 | 100 |
| 47 | THOMAS VILANGADAN | SCS/7619/17 | 94 | 92 | 94 | 91 | 91 | 30 | 86 | 100 | 100 |
| 42 | VARUN S NAIR | SCS/8026/17 | 92 | 93 | 92 | 94 | 94 | 92 | 100 | 100 | 100 |
| 43 | VARON S NAM | SCS/7590/17 | 94 | 96 | 92 | 94 | 99 | 90 | 100 | 02 | 100 |
| 44 | VINNESHINDEO | SCS/7585/17 | 89 | - 95 | 89 | 91 | 90 | 90 | 100 | 92 | 100 |
| 45 | VINAY ARON DEO | SCS/803517 | 87 | 89 | 87 | 89 | 97 | 88 | 80 | 1 07 | 100 |
| 46 | VINAY STEEPHEN | SCS/802117 | 90 | 97 | 93 | 91 | 94 | 87 | 100 | 92 | 100 |
| 47 | VINIL VARGHESE | 000/07/4413 | 92 | 97 | 91 | 94 | 91 | 90 | 100 | 100 | 100 |
| 48 | VISHNU GOPIDAS | 505/1/441 | 7 02 | 89 | 91 | 87 | 86 | 90 | 86 | 92 | 100 |
| 49 | VISHNUPRASAD R | SCS/8043/1 | 7 05 | 95 | 87 | 96 | 94 | 90 | 100 | 100 | 100 |
| 50 | VISHNURAJ K R | SCS/7767/1 | 1 95 | 03 | 88 | 91 | 96 | 87 | 100 | 100 | 100 |
| 51 | VISHNU T P | SCS/7595/1 | / 89 | 93 | 0 | | | | | | |

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CS/F07.0

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SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, KARUKUTTY

B.Tech - Computer Science and Engineering. KTU 2018 S2 - B

CS100 COMPUTER PROGRAMMING

SESSIONAL MARK LIST-Theory

| Roll | koll | | Name | Admission | Assign 10 M | ment arks | Test 40 Marks | Total 50Marks |
|------|----------|----------|------------------------|-------------|----------------|--------------|------------------|------------------|
| No | | | | 110 | 1 | 0 | 22 | 32 |
| 1 | 1 | MAN | EESH KRISHNA M | SCS/7789/17 | - | 0 | 37 | 47 |
| 2 | | MANOJA E | | SCS/7928/17 | | 0 | 35 | 45 |
| 3 | 3 | MAR | AIYA RAPHEL | SCS/7771/17 | | 0 | 30 | 40 |
| | 4 | MEE | RACANIL | SCS/7616/17 | | 10 | 18 | 28 |
| F | 5 | MIL | NA JAMES | SCS/8051/17 | 1 | 10 | 10 | 23 |
| F | 6 | MO | HAMMED SUHAIB V A | SCS/7643/1 | 7 | 10 | 13 | 27 |
| F | 7 | MU | HAMMAD SAHEER C V | SCS/8057/1 | 7 | 10 | 1/ | 21 |
| F | 8 | NE | AL A VINOD | SCS/7637/1 | 7 | 10 | 24 | 34 |
| F | 0 | NE | ETHU SUNIL | SCS/8011/1 | 7 | 10 | 27 | 51 |
| F | 9 | NI | MISHA MANOJ | SCS/7609/1 | 7 | 10 | 18 | 28 |
| F | 1 | | VEDVAKP | SCS/7748/ | 17 | 10 | 22 | 32 |
| ł | 1 | | ADVATHI P I | SCS/7977/ | 17 | 10 | 24 | 34 |
| | 1 | 2 17/ | | SCS/7613/ | 17 | 10 | 24 | 34 |
| | | AD | DEMARDISHNA SUIIT | SCS/7597 | 17 | 10 | 29 | 39 |
| | H | 14 1 | AHUL K R | SCS/7784 | /17 | 10 | 31 | 41 |
| | \vdash | 16 1 | AMACHANDRAN TH | SCS/7618 | /17 | 10 | 13 | 23 |
| | F | 17 1 | DITHWIK S MENON | SCS/7630 | /17 | 10 | 18 | 28 |
| | F | 18 | RITWANA VASMIN HASHIM | SCS/7723 | 3/17 | 10 | 30 | 40 |
| | F | 10 | ROBIN ABRAHAM | SCS/7632 | 2/17 | 10 | 26 | 36 |
| | ł | 20 | ROHAN LTHEVARA | SCS/780 | 1/17 | 10 | 32 | 42 |
| | ł | 21 | ROHITH SAIU | SCS/763 | 1/17 | 10 | 19 | 29 |
| | 1 | 27 | ROSEMOL BUU | SCS/783 | 0/17 | 10 | 27 | 37 |
| | | 23 | ROSHAN PRASAD | SCS/800 | 6/17 | 10 | 35 | 45 |
| | | 24 | SAEED V BASHEER | SCS/758 | 84/17 | 10 | 32 | ' 42 |
| | | 25 | SANJU M P | SCS/75 | 82/17 | 10 | 34 | 44 |
| | | 26 | SARANYA M. NAMBIAR | SCS/76 | 06/17 | 10 | 20 | 30 |
| | | 27 | SARATH A | SCS/80 | 22/17 | 10 | 30 | 40 |
| | | 28 | SARATH AMAY NAIR | SCS/76 | 04/17 | 10 | 26 | 36 |
| | | 2 | 9 SARATH J | SCS/7 | 68/17 | 10 | 31 | 41 |
| | | 3 | 0 SHALLET MARY T ELDHO | SCS/7 | 773/17 | 10 | 28 | 38 |
| | | 3 | 1 SHILPA SEKHAR | SCS/7 | 732/17 | 10 | 31 | 41 |
| | | | 32 SHIMIL K ELDOSE | SCS/7 | 635/17 | 10 | 14 | 24 |
| | | | 33 SHRAVAN MANOJ | SCS/7 | 591/17 | 10 | 22 | 32 |
| | | | 34 SIMON SAJU | SCS/ | 583/17 | 10 | 31 | 41 |
| - | THE CNAMPLAP | SCS/7996/17 | 10 | 17 | 27 |
|------|-------------------|-------------|----|----|----|
| 5 SI | NEHA S NAMDIAR | SCS/7581/17 | 10 | 13 | 23 |
| 36 S | OHAN JAMES | SCS/758/117 | 10 | 1 | 11 |
| 37 S | OURAV BINESH | SCS/7026/17 | 10 | 13 | 23 |
| 38 5 | GREERAJ B R | SCS/8025/17 | 10 | 10 | 29 |
| 39 5 | STEN BENNY | SCS/8003/17 | 10 | 28 | 18 |
| 40 | SUMAYYA SUHAIL | SCS/7589/17 | 10 | 20 | 23 |
| 41 | SWATHY HARISH | SCS/7588/17 | 10 | 23 | 41 |
| 42 | THOMAS VILANGADAN | SCS/7619/17 | 10 | 31 | 41 |
| 43 | VARUN S NAIR | SCS/8026/17 | 10 | 31 | 41 |
| 44 | VIKHNESH KRISHNA | SCS/7590/17 | 10 | 24 | 34 |
| 45 | VINAY ARUN DEO | SCS/7585/17 | 10 | 22 | 32 |
| 46 | VINAY STEEPHEN | SCS/8035/17 | 10 | 17 | 27 |
| 47 | VINIL VARGHESE | SCS/8021/17 | 10 | 22 | 32 |
| 48 | VISHNU GOPIDAS | SCS/7744/17 | 10 | 17 | 27 |
| 49 | VISHNUPRASAD R | SCS/8043/17 | 10 | 28 | 38 |
| 50 | VISHNURAJ K R | SCS/7767/17 | 10 | 27 | 37 |
| 51 | VISHNU T P | SCS/7595/17 | 10 | 8 | 18 |

FACULTY IN CHARGE





RESULT ANALYSIS

Programming

SACSE Semester & Branch/Year of Admission:

(omputer Course Name:

Total No. of Students: 51

INTERNAL TESTS

| Teet | Date of | No. of Students | | | Class No. | No. of Students who secured | | | | | |
|------|----------|-----------------|-----------|--------|-----------------|-----------------------------|---------|---------|----------|------|--|
| No. | Exam | Present | Absent | Passed | of Absentees | <40% | 40%-60% | 60%-80% | 80%-100% | 70 | |
| 1 | 9.9.9018 | 51 | - | 39 | - | 12 | 15 | 14 | 10 | 76.5 | |
| 2. | 6.3.2018 | 51 | · · · - · | 44 | - | 7 | 17 | 13 | 14 | 86.3 | |
| 4 | | | | | | | | | | | |

I

END SEMESTER EXAMINATION

| Date of | N | lo. of Studen | its | Class | No. of Students who secured | | | | | |
|------------|------------|---------------|--------|---------------------|-----------------------------|---------|---------|----------|----|--|
| Exam | Registered | Appeared | Passed | No. of Absentees | <40% | 40%-60% | 60%-80% | 80%-100% | % | |
| 27.5. dot8 | 50 | 50 | 46 | _ | 4 | 17 | 26 | 3 | 92 | |

SUPPLIMENTARY EXAMINATION

| Date of | N | Class | No. of Students who secured | | | | | | |
|---------|------------|----------|-----------------------------|---------------------|------|---------|---------|----------|---|
| Exam | Registered | Appeared | Passed | No. of Absentees | <40% | 40%-60% | 60%-80% | 80%-100% | % |
| | | | | | | | | | |

Remarks:

REMEDIAL MEASURES TAKEN NAME OF SUBJECT:

Batch No:

Computer Programming 17

Topics : Programs using looping, decision making

Date : 28-2-18

Time : 4.30-6.30

| Roll No | Name | Sign |
|---------|---------------------|--------------|
| 5 | MILNA JAMES | (poilingtens |
| 6 | MOHAMMED SUHAIB V A | Super- |
| 7 | MUHAMMAD SAHEER C V | Sale |
| 16 | RAMACHANDRAN T H | Rose |
| 17 | RITHWIK S MENON | S. alt |
| 35 | SNEHA S NAMBIAR | Jur. |
| 36 | SOHAN JAMES | K. |
| 51 | VISHNU T P | Antal |

BINI OMMAN SAT

REMEDIAL MEASURES TAKEN

NAME OF SUBJECT: Batch No:

Computer Programming 17

Topics : Arrays-1D,2D

Date : 16-4-18

Time: 4.30-6.30

| Roll No | Name | Sign |
|---------|---------------------|-----------|
| 5 | MILNA JAMES | 000 mpars |
| 6 | MOHAMMED SUHAIB V A | Chillie L |
| 7 | MUHAMMAD SAHEER C V | Soul . |
| 16 | RAMACHANDRAN T H | Adr. |
| 17 | RITHWIK S MENON | () Bib |
| 35 | SNEHA S NAMBIAR | good . |
| 36 | SOHAN JAMES | K- |
| 51 | VISHNU T P | Ruisol |

BINI OMMAN ANT

REMEDIAL CLASS-PHASE 1 Class:S2CS2

Subject: Computer Programming

Date :26/02/2018

| l.no | N | lame | Signature | | |
|------|-------------------|---------------------|-------------|--|--|
| 1 | N | MILNA JAMES | mit | | |
| 2 | N | MOHAMMED SUHAIB V A | Del- | | |
| 3 | 1 | MUHAMMAD SAHEER C V | | | |
| 4 | | NIVEDYA K P | Nowaper | | |
| 5 | | RAMACHANDRAN T H | Ramin | | |
| 6 | 5 RITHWIK S MENON | | 0.00 | | |
| 7 | | SARANYA M. NAMBIAR | Stan | | |
| 8 | | SHIMIL K ELDOSE | | | |
| 9 | • | SNEHA S NAMBIAR | Sause. | | |
| 1 | 0 | SOHAN JAMES | the . | | |
| 1 | 11 | SOURAV BINESH | dette | | |
| | 12 | SREERAJ B R | Burgerout | | |
| | 13 | STEN BENNY | Geor . | | |
| - | 14 VINAY ARUN DEO | | · · · · · | | |
| | 15 | VINAY STEEPHEN | | | |
| _ | 16 | VISHNU GOPIDAS | dens bio | | |
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Roseniol Byer Neethe Sunil Sunayya Scharl 18 19. 20. Maneesh Kaishna. 21

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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Academic Calendar July 2017- July 2018

(B. Tech, B. Arch, M. Tech, M. Arch, M. Planning, MCA and Evening B. TechdeM. Tech) Please see separate Academic Calendar for MBA

| Mar I | | April 2018 | - | 11 | | | | |
|-------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------|-----|-----------------------|
| Tes | - | | - | May 2018 | - | 1 14-1 | - | |
| 100 | - | | 1 | | - | June 2018 | | 1001 2018 |
| The | - | | 1 | May filey | - | | ++ | |
| Fei | - | | 3 | E.tem 92 / Se Shed D | | | +++ | |
| | | | | Exam 54 Slot C | | | | |
| Sat | | | 4 | state of short F17% Short F | 1 | Commencement of Supplementary Exams | | |
| San | 1 | and the second se | 5 | | _ | Exam S1 Slot A | | |
| Men | 1 | Easter | 6 | | 2 | and the second second second | | |
| Tue | 1 | | 7 | Exam Set Store D | 3 | | 1 | |
| Wed | 1 | | 8 | Exam 52 Slot F1/or Store | 4 | Exam \$3 Slot A | 1 | Exam \$6 Slot A |
| | 1 | | | Exam 54 Steel F | 5 | Exam S1 Slot D | 1 | Exam 56 Slot B |
| Thu | 5 | | , | | • | M.Tech/M.Arch/M.Planning Viva begins | • | Exam S6 Slot C |
| | | | 19 | Exam S2 Slot E3 - Commencement of Summer | 7 | Exam SJ Slot B Exam SI Slot E | 5 | Esam 56 Slot D |
| Fri | • | Course Committee/Class Committee Meeting | 11 | Exam S2 Slot F1- Last date for submission of project | 8 | Exam S3 Slot C B.Tech S4 result declaration | 6 | Exam 56 Slot E |
| Sat | 7 | College level Arts fest | 12 | (M.Tech/M.Arch/M.Planning) | | | | |
| See | | To be completed | | | , | | 7 | Sector Ma |
| Mon | | BARA A | 13 | a second s | 10 | | | |
| Tes | | Summer Course Registration | 14 | Exam 52 Slot F2 | 11 | Exam S3 Slot D | 9 | Ezam 56 Slot F |
| Wed | 11 | Lest des Constant and | 15 | | 12 | From \$1 Store P | | |
| The | | Last date for evaluation of Jury/Practical's | 16 | Delegate a con | 13 | E CANIN 35 SHOLE | 10 | Exam S2 Slot A |
| Fei | 12 | Classes End, Publish Attendance | 17 | Curversity Arts Fest | 14 | B.Tech S6 result declaration | 12 | Exam S1/S2 Slot |
| Set | 15 | Marks to KTU | 18 | | 15 | ld-ul-Fitr | 13 | Exam S1/S2 Slot |
| Sun | 16 | Vishu | 19 | A REAL PROPERTY OF THE PARTY OF | 16 | | 14 | P- |
| Mon | 15 | the second standard and | 20 | | 17 | Carl Representation of the | 15 | |
| Tue | 17 | | 21 | Exam 55 Slot A (Suppl'y) | 18 | | 16 | Exam S1/S2 Slot |
| Wed | 10 | | 22 | Exam SS Slot B (Suppl'y) | -19 | | 17 | Exam S1/S2 Slot |
| The | 10 | | 23 | Exam S5 Slot C (Suppl'y) | 20 | M.Tech/M.Arch/M.Planning Viva ends | 18 | Exam S2 Slot D |
| 100 | 19 | | 24 | Exam \$5 Slot D (Suppl'y) | 21 | Exam S3/S4 Slot F1 | 19 | Exam S1/S2 Slot |
| Fn | 20 | | 25 | Exam 55 Slot E (Suppl'y) | 22 | B.Tech S2 Result Declaration Exam S3/S4 Slot F2 | 20 | Exam S1/S2 Slot |
| Bat | 21 | | 26 | | 23 | | 21 | |
| Mon | 22 | 6 | 27 | | 24 | | 22 | |
| 1100 | 15 | Exams Exams Exam S2 / S6 Slot A | 28 | Exam SS Slot F (Suppl'y) | 25 | Exam S4 Slot A | 23 | Exam S2 Slot E3 |
| Tue | 24 | Exam S4 Slot F | 29 | Last date for M.Tech/M.Arch/M.Planning Project report to the university by the principal | 26 | Exam S4 Slot B | 124 | Exam SL/S2 Slot F1 |
| Wed | 25 | Exam S2 / 86 Slot B | 30 | Summer Courses Ends | 27 | Exam S4 Slot C | 15 | Exam SL/S2 Slot |
| Thu | 26 | Exam S4 slot A Last date for M.Tech/M.Arch/M.Planning Project evaluation in the department committee | 31 | Report Eligibility of Students after Summer Course | 28 | Exam S4 Slot D | 26 | |
| Fri | 27 | Exam S2/56 Slot C | | | 29 | Publication of M.Tech/M.Arch/M.Planning Results Exam S4 Slot E | 27 | - |
| Sat | 28 | | 1.72 | The second second | 30 | | 28 | Contraction of the |
| Sun | 29 | Re- CARLER | 123 | THE PARTY OF L | 1057 | | 3 | Second Second |
| Mon | 30 | Exam S4 Slot B | - | | - | | 30 | |
| Test | 1 | | 1 | | | | 1 | |



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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Academic Calendar July 2017- July 2018

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech) Please see separate Academic Calendar for MBA

| | De | 0 | January 2018 | T | February 2019 | T | March 2018 |
|-----|-------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------|
| | Mo | n 1 | Registration Starts Commencement of Even | | reordary 2018 | | |
| ł | - | +- | Semester Classes | | | | |
| ŀ | Two | | 2 Mannam Jayanthi | | | | |
| F | We | 11 | | +- | | | |
| + | Ent | 1: | | 11 | | 1 | a that the deale |
| 1 | Sat | 1 | | 1 4 | Publish Attendance | 2 | Publish Attendance |
| | Sun | 1 2 | Contract of the second second second | | | 3 | |
| | Mon | 8 | Course Committee/Class | 5 | | 4 | |
| | | | Committee Meeting | | | | |
| | Tue | 9 | | 6 | | 6 | |
| V | Ved | 10 | | 7 | | 7 | |
| 1 | Thu | 11 | | 8 | | 8 | Last date for forwarding the list of the external examiner to the University by the cluster conveners (M.Tech/M.Arch/M.Planning) |
| F | ni | 12 | Registration Ends | 9 | B.Tech S1/S3/S5 result declaration | 9 | |
| S | at | 13 | | 10 | Test 1 to be Completed | 10 | Test 2 to be Completed |
| Su | In | 14 | | 11 | | 11 | ender and a second second |
| M | on | 15 | | 12 | | 12 | |
| Tu | 10 | 16 | | 13 | Maha Shivratri | 13 | |
| We | d | 17 | | 14 | Publish Test 1 Marks | 14 | |
| Th | u | 18 | | 15 | | 15 | |
| Fri | 1 | 19 | | 16 | Tool Foot | 16 | Publish Test 2 Marks |
| Sat | | 20 | | 17 | lech Fest | 17 | Carden Cardenard |
| Sun | | 1 | and the second | 18 | | 18 | |
| Mon | 1 2 | 2 | | 19 | | 19 | |
| Tue | 2 | 3 | | 20 | | 20 | |
| Wed | 2 | 4 | | 21 | | 21 | |
| Thu | 12 | 5 | | 22 | | 22 | |
| Fri | 12 | 1 | Republic Day | 23 | | 23 | |
| Sat | 1 27 | | Republic Day | 24 | | 24 | A CONTRACTOR OF A |
| Cun | 20 | - | the state of the s | 25 | The second s | 25 | |
| Mon | 20 | - | | 26 | | 26 | |
| Tue | 20 | + | | 27 | | 27 | |
| Wed | 21 | 1 | | 28 | | 28 | |
| Thu | 31 | - | | | | 29 | Maundy Thursday. |
| Fat | | - | | | | 30 | Good Friday |
| Fri | 10000 | A Provide State | | STATE OF | | 31 | |
| Sat | 5.900 | ACCESSION OF | | 105 1 PP | | a Desar | |
| Sun | 100 | | | 1000 20 2010 | | | |
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| Tue | | | | | | - | |

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SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, KARUKUTTY S2 Computer Science and Engineering (B17) Checklist: Course File

CS100 COMPUTER PROGRAMMING

| SL NO | CONTENTS | STATUS |
|-------|----------------------------------------|--------|
| 1 | COURSE DIARY | ~ |
| | 1.1 FACULTY TIMETABLE | |
| | 1.2 DETAILED COURSE PLAN | ~ |
| | 1.3 SYLLABUS | ~ |
| | 1.4 INTERNAL TEST1 MARKS | |
| | 1.5 INTERNAL TEST 2 MARKS | |
| _ | 1.6 ACADEMIC CALENDAR | |
| | 1.7 FINAL INTERNAL ACADEMIC ASSESSMENT | |
| | 1.8 FINAL SUBJECT ATTENDANCE | V |
| 2 | INTERNAL TEST 1 QUESTION PAPER | |
| 3 | INTERNAL TEST 2 QUESTION PAPER | 1 |
| 4 | INTERNAL TEST 1 ANSWER KEY | |
| 5 | INTERNAL TEST 2 ANSWER KEY | |
| 6 | ASSIGNMENT QUESTION | V |
| 7 | INDUSTRIAL RELEVANCE | V |
| 8 | STUDENT ASSIGNMENT SHEETS | |
| 9 5 | STUDENT ANSWER SHEETS | |
| 10 | COURSE NOTES | |

R

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY VIDYA NAGAR, KARUKUTTY, ERNAKULAM DEPARTEMENT OF COMPUTER SCIENCE AND ENGINEERING CO ASSESSMENT TOOL

| Course Code & Name | : :CS100 COMPUTER PROGRAMMING |
|--------------------|-------------------------------|
| Faculty | : BINI OMMAN. |
| Academic Year | : 2017-18 |
| Class | : S2-CSE-II |
| Regulation | : R-2015 |

COURSE OUTCOMES -: CS100 COMPUTER PROGRAMMING

After the completion of this course, students should be able to

- 1. Identify appropriate C language constructs to solve problems
- 2. Thorough understanding of arrays and strings
- 3. Explain the concept of Pointers and their applications
- 4. Analyze problems, identify subtasks and implement them as functions/procedures
- 5. Apply sorting and searching techniques to solve application programs
- Explain the concept of file system for handling data storage and apply it for solving problems

Mapping of Assessment tools with COs

| Assessment Tools | C01 | CO2 | CO3 | CO4 | CO5 | CO6 |
|---------------------|-----|-----|-----|-----|-----|-----|
| IAT | X | X | | X | X | |
| Class Test | | | X | | | X |
| Assignment | X | | X | X | | |
| Concept Test | | | | | | |
| Rubrics | | | | | | X |

Weightage for Assessment tools

| Course Outcomes | ΙΑΤ | Concept Test | Assignment | Rubrics | Class Test |
|-----------------|-----|-----------------|------------|---------|------------|
| CS100.1 | 80 | | 20 | | |
| CS100.2 | 100 | | | | |
| CS100.3 | | | 20 | | 80 |
| CS100.4 | 80 | | 20 | | |
| CS100.5 | 100 | 424 | 19 | | |
| CS100.6 | | 1.3.4 | | 20 | 80 |

| D TECHNOLOGY.KARUKUTTY IENCE AND ENGINEERING | MING - BATCH 17 CS2 | Responses Sum 5+4 | 3.To a moderate 2.To some extent 1.Not at all | 11 0 1 | 22.45 0.00 2.04 75.51 | 3.To a moderate 2.To some extent 1.Not at all | 12 1 0 | 24.49 2.04 0.00 73.47 | 3.To a moderate 2.To some extent 1.Not at all | 14 0 0 | 28.57 0.00 0.00 71.43 | 3.To a moderate 2.To some extent 1.Not at all | 6 0 1 | 12.24 0.00 2.04 85.71 | 3.To a moderate extent 2.To some extent 1.Not at all | 12 0 1 | 24.49 0.00 2.04 73.47 | 3.To a moderate c.To some extent 1.Not at all | 12 0 1 | |
|-------------------------------------------------|------------------------|-------------------|-----------------------------------------------|--------------------------------------------------|---------------------------------|-----------------------------------------------|-----------------------------|------------------------------|-----------------------------------------------|--------------------|-----------------------|-----------------------------------------------|-----------------------------|-----------------------|------------------------------------------------------|----------------------------|----------------------------|-----------------------------------------------|---------------------------|--|
| NIGNEERING AND F COMPUTER SCI | APUTER PROGRAMN | | 3.To a great extent | 20 | 40.82 | 3 1.To a oreat extent | 19 | 38.78 | 3.To a great extent | 20 | 40.82 | .To a great extent | 25 | 51.02 | 3.To a great extent | 20 | 40.82 | .To a great extent | 19 | |
| MS SCHOOL OF E DEPARTMENT O | CS100 : CON | | 5.To a very great extent | 17 | 34.69 | 5.To a very great extent | 17 | 34.69 | 5.To a very great extent | 15 | 30.61 | 5.To a very great extent | 17 | 34.69 | 5.To a very great extent | 16 | 32.65 | 5.To a very great extent | 17 | |
| SC | | Question | | It am able to toenury annronriate C. landuade | constructs to solve problems | | t am shie to understand the | cocept of arrays and strings | I am able to understand | their applications | | I am able to analyze | problems, identify subtasks | functions/ procedures | | I am able to apply sorting | solve application programs | I am able to explain the | concept of file system of | |
| | | | | 1. WEARING | CS100.1 | | | CS100.2 | | | CS100.3 | | | CS100.4 | | | CS100.5 | | | |

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, KARUKUTTY DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING ASSESSMENT OF ATTAINMENT OF COURSE OUTCOMES

| | course Code a | k Name | :CS: | 100 C | OMP | UTER | R PR(| JGR | AMMA | BNI | | | |
|------|---------------------|----------------------------------------|--------------|------------------|-----------|----------|--------------|-------------------|--------|---------|----------|------------|-------|
| | Academic real | * | 1201 1201 | 8-201 | 6 | | | | • | | | | |
| œ | Regulation | | Ś. | 9 | | | | | | | | | |
| Y | fter the completion | n of this course, students should be a | ble to | | | | | | | | | | |
| | CS100.1 | Identify appropriate C language | constru | cts to s | olve pro | blems | | | | | | | |
| _ | CS100.2 | Thorough understanding of arra | vs and s | trings | | | | | | | | | |
| - | CS100.3 | Explain the concept of Pointers | ind thei | r appli | cations | | | | | | | | |
| | CS100.4 | Analyze problems, identify subta | sks and | implen | nent the | m as fu | nctions | /proced | ures | | | | |
| | CS100.5 | Apply sorting and searching tech | iniques | to solve | applica | ation pr | ograms | | | | | | |
| | CS100.6 | Explain the concept of file system | for har | adling o | lata stoi | rage and | l apply | it for s | olving | problen | 35 | | |
| | 0 | Course Outcomes | | CS100. | - | CSI | 00.2 | | CS100. | | | S100.4 | |
| | | | 80 | 20 | 100 | 100.0 | 100 | 20 | 80 | 100 | 80 | 50 | 100 |
| ON'S | REG. NO | AMAN | I-TAI | L I VZZIČNMEN | LATOT | II - TAI | JATOT | L II VZSICAMEN | CT-1 | TOTAL | II - TAI | VZZIČAWEAL | TOTAL |
| - | SCM17CS056 | MANEESH KRISHNA M | 44.0 | 20.0 | 64.0 | 46.4 | 46.4 | 20 | 72.0 | 92.0 | 51.1 | 20 | 71.1 |
| 2 | SCM17CS057 | MANOJA E | 68.8 | 20.0 | 88.8 | 96.4 | 96.4 | 50 | 80.0 | 100.0 | 80.0 | 20 | 100.0 |
| • | SCM17CS058 | MARIYA RAPHEL | 65.6 | 20.0 | 85.6 | 100.0 | 100.0 | 20 | 80.0 | 100.0 | 66.7 | 50 | 86.7 |
| 4 | SCM17CS059 | MEERA CANIL | 76.8 | 20.0 | 96.8 | 64.3 | 64.3 | 20 | 80.0 | 100.0 | 35.6 | 20 | 55.6 |
| s | SCM17CS060 | MILNA JAMES | 28.0 | 20.0 | 48.0 | 46.4 | 46.4 | 20 | 64.0 | 84.0 | 55.6 | 20 | 75.6 |
| 9 | SCM17CS061 | MOHAMMED SUHAIB V A | 16.0 | 20.0 | 36.0 | 37.5 | 37.5 | 20 | 48.0 | 68.0 | 35.6 | 20 | 55.6 |
| 2 | SCM17CS062 | MUHAMMAD SAHEER C V | 32.0 | 20.0 | 52.0 | 46.4 | 46.4 | 50 | 56.0 | 76.0 | 31.1 | 20 | 51.1 |
| | | | | | | | | | | | | | |

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CS100.6

CS100.5

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|----|------------|-----------------------|------|------|------|-------|------|------|--------|-----------------------------------------------------------------------------------------------------------------|-------|------|--------|--------|-------|------|--------|----------|----------|
| 80 | SCM17CS063 | NEAL A VINOD | 36.8 | 20.0 | 56.8 | 78.6 | 78.6 | 20 7 | 2.0 9 | 2.0 5 | 7.8 2 | 0 77 | .8 25 | .0 25. | 0 64 | 16. | 0 80 | 0 | |
| 6 | SCM17CS064 | NEETHU SUNIL | 43.2 | 20.0 | 63.2 | 78.6 | 78.6 | 20 8 | 0.0 | 0.0 6 | 6.7 2 | 0 86 | 50 50 | .0 50. | .0 72 | 18. | 06 0 | 8 | - |
| 10 | SCM17CS065 | NIMISHA MANOJ | 36.0 | 20.0 | 56.0 | 41.1 | 1.11 | 20 6 | 4.0 8 | 4.0 4 | 4.4 2 | 0 64 | 4 25 | .0 25 | 0 56 | 14. | 0 70 | C | T |
| Ħ | SCM17CS066 | NIVEDYA K P | 26.4 | 20.0 | 46.4 | 82.1 | 82.1 | 20 7 | 2.0 9 | 2.0 6 | 2.2 2 | 0 82 | 25 25 | .0 25 | 0. | 16. | 8 | U | 1 |
| 12 | SCM17CS067 | PARVATHI P J | 52.8 | 20.0 | 72.8 | 44.6 | 44.6 | 20 8 | 0.0 1 | 0.0 | 0.0 | 8 0 | 0.0 25 | 0 25 | .0 72 | 18. | 06 0 | " | T |
| 13 | SCM17CS068 | POOJA S | 44.8 | 20.0 | 64.8 | 48.2 | 48.2 | 20 7 | 2.0 9 | 2.0 6 | 6.7 2 | .0 | 5.7 50 | 0 50 | .0 64 | 16. | 0 80 | " | Т |
| 14 | SCM17CS069 | PREMKRISHNA SUJIT | 62.4 | 20.0 | 82.4 | 71.4 | 71.4 | 20 6 | 9.0 | 4.0 4 | 22 | 0 | 2.2 50 | 0 50 | .0 56 | 14 | 0 70 | | Т |
| 15 | SCM17CS070 | RAHUL K R | 64.0 | 20.0 | 84.0 | 6.7.9 | 6.79 | 20 8 | 80.0 1 | 0.00 | 5.6 | 6 | 5.6 2 | 5.0 25 | 1 0.3 | 2 18 | 0 00 | | Τ. |
| 16 | SCM17CS071 | RAMACHANDRAN T H | 21.6 | 20.0 | 41.6 | 5.4 | 5.4 | 20 | 0.04 | 0.0 2 | 6.7 | 6 | 6.7 1 | 25 12 | 5 3 | 80 | 6 | | Т |
| 1 | SCM17CS072 | RITHWIK S MENON | 31.2 | 20.0 | 51.2 | 46.4 | 46.4 | 20 4 | 48.0 | 8.0 | 3.3 | 2 03 | 3.3 1 | 2.5 13 | 15 4 | 9 | .0 50 | | 1 |
| 18 | SCM17CS073 | RIZWANA YASMIN HASHIM | 52.0 | 20.0 | 72.0 | 82.1 | 82.1 | 20 | 72.0 | 0.20 | 3.3 | 6 07 | 3.3 7 | 5.0 7 | 5.0 6 | 4 16 | 08 0. | Å | |
| 2 | SCM17CS074 | ROBIN ABRAHAM | 37.6 | 20.0 | 57.6 | 83.9 | 83.9 | 20 | 64.0 | 84.0 | 1.1 | 20 9 | 1.1 1 | 2.5 1 | 2.5 5 | 6 14 | 01 10 | | Γ. |
| 50 | SCM17CS075 | ROHAN J THEVARA | 68.8 | 20.0 | 88.8 | 57.1 | 57.1 | 20 | 72.0 | 92.0 | 75.6 | 20 9 | 5.6 7 | 5.0 7 | 5.0 6 | 4 | 0.0 8(| | Τ. |
| 21 | SCM17CS076 | ROHITH SAJU | 40.8 | 20.0 | 60.8 | 55.4 | 55.4 | 20 | 56.0 | 76.0 | 31.1 | 20 | 1.12 | 0.0 | 0.0 | 8 | 2.0 6 | | Γ. |
| ដ | SCM17CS077 | ROSEMOL BIJU | 44.8 | 20.0 | 64.8 | 87.5 | 87.5 | 20 | 80.0 | 0.00 | 62.2 | 50 | 82.2 | 2.5 1 | 2.5 | 1 2 | 8.0 | | T |
| ង | SCM17CS078 | ROSHAN PRASAD | 65.6 | 20.0 | 85.6 | 87.5 | 87.5 | 20 | 80.0 | 0.001 | 75.6 | 20 | 95.6 1 | 00.0 | 0.00 | 72 1 | 9.0 | | ± |
| 5 | SCM17CS079 | SAEED V BASHEER | 60.8 | 20.0 | 80.8 | 85.7 | 85.7 | 20 | 80.0 | 0.001 | 62.2 | 20 | 82.2 1 | 00.00 | 0.00 | 1 | 8.0 9 | - | t |
| 52 | SCM17CS080 | SANJU M P | 62.4 | 20.0 | 82.4 | 82.1 | 82.1 | 20 | 80.0 | 100.0 | 80.0 | 20 | 0.00 | 87.5 | 87.5 | 1 | 8.0 | 0 | |
| 56 | SCM17CS081 | SARANYA M NAMBIAR | 25.6 | 20.0 | 45.6 | 67.9 | 67.9 | 20 | 72.0 | 92.0 | 48.9 | 20 | 68.9 | 62.5 | 62.5 | 1 | 6.0 8 | 9 | B |
| 27 | SCM17CS082 | SARATH A | 57.6 | 20.0 | 77.6 | 83.9 | 83.9 | 20 | 80.0 | 100.0 | 53.3 | 50 | 73.3 | 0.001 | 0.00 | 12 | 8.0 | | t |
| 28 | SCM17CS083 | SARATH AMAY NAIR | 55.2 | 20.0 | 75.2 | 62.5 | 62.5 | 20 | 80.0 | 100.0 | 44.4 | 5 | 64.4 | 62.5 | 62.5 | 12 | 18.0 | 8 | 8 |
| 29 | SCM17CS084 | SARATH J | 65.6 | 20.0 | 85.6 | 82.1 | 82.1 | 20 | 72.0 | 92.0 | 55.6 | 20 | 75.6 | 12.5 | 12.5 | 2 | 16.0 | 8 | ŧ |
| 30 | SCM17CS085 | SHALLET MARY T ELDHO | 56.0 | 20.0 | 76.0 | 53.6 | 53.6 | 20 | 80.0 | 100.0 | 75.6 | 50 | 95.6 | 100.0 | 100.0 | 80 | 20.0 | 8 | ta Bt |
| 31 | SCM17CS086 | SHILPA SEKHAR | 59.2 | 20.0 | 79.2 | 82.1 | 82.1 | 20 | 80.0 | 100.0 | 62.2 | 20 | 82.2 | 75.0 | 75.0 | 4 | 18.0 | 8 | B |
| 32 | SCM17CS087 | SHIMIL K ELDOSE | 20.0 | 20.0 | 40.0 | 60.7 | 60.7 | 20 | 64.0 | 84.0 | 15.6 | 20 | 35.6 | 0.0 | 0.0 | 56 | 14.0 | 10 | 0 |
| 33 | SCM17CS088 | SHRAVAN MANOJ | 48.8 | 20.0 | 68.8 | 51.8 | 51.8 | 20 | 72.0 | 92.0 | 26.7 | 20 | 46.7 | 50.0 | 50.0 | 3 | 16.0 | 80 | ŧ |
| 34 | SCM17CS089 | ULAS NOMIS | 50.4 | 20.0 | 70.4 | 94.6 | 94.6 | 20 | 80.0 | 100.0 | 75.6 | 20 | 95.6 | 12.5 | 12.5 | 12 | 18.0 | 96 | å |

| 25 | | SNETLA S NAMBIAB | | | 1 | 101 | 101 | - | | 0.07 | | F | | F | - | | - | | Г |
|----|-------------|---------------------------------|------|------|---------|------|---------|---------|--------|---------|----------|-------|----------|---------|-------|------|------|----|------|
| 8 | SCM17CS090 | SINEHA S INAMBIAN | 31.2 | 20.0 | 7.10 | 4.UC | 4.00 | 3 | 48.0 | 0.00 | 46.7 | 50 | 1.00 | 17.5 8 | c. | ₽ | 0.0 | 2 | J |
| 36 | SCM17CS091 | SOHAN JAMES | 15.2 | 20.0 | 35.2 | 16.1 | 16.1 | 20 | 48.0 | 68.0 | 26.7 | 20 | 46.7 | 0.0 | 0.0 | 40 | 0.0 | 0 | Ga (|
| 38 | SCM17CS093 | SREERAJ B R | 21.6 | 20.0 | 41.6 | 35.7 | 35.7 | 20 | 64.0 | 84.0 | 4.4 | 20 | 24.4 | 0.0 | 0.0 | 56 1 | 4.0 | 0 | A |
| 39 | SCM17CS094 | STEN BENNY | 24.8 | 20.0 | 44.8 | 67.9 | 6.7.9 | 20 | 64.0 | 84.0 | 48.9 | 20 | 6.89 | 2 0.53 | 5.0 | 56 1 | 4.0 | 0 | 0 |
| 4 | SCM17CS095 | SUMAYYA SUHAIL | 50.4 | 20.0 | 70.4 | 80.4 | 80.4 | 20 | 80.0 | 100.0 | 62.2 | 20 | 82.2 | 0.0 | 0.0 | 72 1 | 8.0 | 06 | B+ |
| 4 | SCM17CS096 | SWATHY HARISH | 55.2 | 20.0 | 75.2 | 35.7 | 35.7 | 20 | 80.0 | 100.0 | 53.3 | 20 | 73.3 | 12.5 | 12.5. | 72 | 18.0 | 06 | B |
| 4 | SCM17CS097 | THOMAS VILANGADAN | 63.2 | 20.0 | 83.2 | 71.4 | 71.4 | 20 | 72.0 | 92.0 | 80.0 | 20 | 0.001 | 0.0 | 0.0 | 54 | 16.0 | 80 | B |
| 4 | SCM17CS098 | VARUN S NAIR | 54.4 | 20.0 | 74.4 | 87.5 | 87.5 | 20 | 80.0 | 100.0 | 62.2 | 20 | 82.2 | 1 00.00 | 0.00 | 72 | 18.0 | 90 | A |
| 4 | SCM17CS099 | VIKHNESH KRISHNA | 40.0 | 20.0 | 60.0 | 85.7 | 85.7 | 20 | 64.0 | 84.0 | 44.4 | 20 | 64.4 | 0.0 | 0.0 | 56 | 14.0 | 70 | c |
| 8 | SCM17CS100 | VINAY ARUN DEO | 32.0 | 20.0 | 52.0 | 82.1 | 82.1 | 20 | 64.0 | 84.0 | 46.7 | 20 | 66.7 | 12.5 | 12.5 | 56 | 14.0 | 70 | B |
| 4 | SCM17CS101 | VINAY STEEPHEN | 21.6 | 20.0 | 41.6 | 64.3 | 64.3 | 20 | 64.0 | 84.0 | 42.2 | 20 | 62.2 | 12.5 | 12.5 | 56 | 14.0 | 70 | P |
| 47 | SCM17CS102 | VINIL VARGHESE | 40.0 | 20.0 | 60.0 | 75.0 | 75.0 | 20 | 72.0 | 92.0 | 44.4 | 20 | 64.4 | 0.0 | 0.0 | 64 | 16.0 | 80 | c |
| 8 | SCM17CS103 | VISHNU GOPIDAS | 23.2 | 20.0 | 43.2 | 66.1 | 66.1 | 20 | 64.0 | 84.0 | 40.0 | 20 | 60.0 | 12.5 | 12.5 | 56 | 14.0 | 70 | P |
| 49 | SCM17CS104 | VISHNU PRASAD R | 57.6 | 20.0 | 77.6 | 67.9 | 6.7.9 | 20 | 72.0 | 92.0 | 46.7 | 20 | 66.7 | 100.0 | 100.0 | 64 | 16.0 | 80 | B |
| 8 | SCM17CS105 | VISHNU RAJ K R | 44.8 | 20.0 | 64.8 | 78.6 | 78.6 | 20 | 80.0 | 100.0 | 6.89 | 20 | 88.9 | 25.0 | 25.0 | 4 | 18.0 | 90 | B |
| 51 | SCM17CS106 | A T UNHSIV | 0.0 | 20.0 | 20.0 | 0.0 | 0.0 | 20 | 40.0 | 60.0 | 31.1 | 20 | 51.1 | 0.0 | 0.0 | 33 | 8.0 | 40 | F |
| | No of Stude | nts scored set attainment level | 23 | 20 | 31 | 32.0 | 32 | 50 | 48 | 50 | 30 | 50 | 40 | 16 | 16 | 4 | 4 | 4 | 29 |
| | % of Stude | nts scored set attainment level | 46 | 100 | 62 | 64 | 64 | 100 | 96 | 100 | 60 | 100 | 80 | 32 | 32 | 88 | 88 | 88 | 58 |
| | | evel of Attainment | • | m | - | - | 1 | 3 | 3 | ß | 1 | 3 | ы | • | 0 | m | ~ | m | 0 |
| | Course | Attainment Level | | | Level 1 | 60 % | of Stud | ents sc | ored m | ore tha | n set at | tainm | ent leve | _ | | | | | |
| | Outcomes | Internal Assessment | _ | | Level 2 | 70 % | of Stud | ents sc | ored m | ore tha | n set al | tainm | ent leve | _ | | _ | | | |
| | CS110.1 | 1 | | | Level 3 | 80 % | of Stud | ents so | ored m | ore tha | n set a | tainm | ent leve | _ | | _ | | | |
| | CS110.2 | 1 | | | | | | | | | | | | | | | | | |
| | CS110.3 | 3 | | | | | | | | | WEIG | HTAG | Е | | | | | | |
| | CS110.4 | 3 | | | | INTE | RNAL | | | | E | % | | | | | | | |
| | CS110.5 | 0 | | | | UNIV | ERSIT | ~ | | | e | 0%1 | | | - | | | | |
| | CS110.6 | 3 | | | | | | | | | | | | | | | | | |
| - | | 1.60 | | | | | | | | | | | | | | | | | |

| | | | SCN | IS SCH | O TOO | F ENGI | NEERI | NG ANI |) TECH | NOLOC | ΥS | | | | | | | INDIRECT ATTAINMENT |
|-------------------------------------------|------|-------|---------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|----------|----------|----------------|----------|------|------|---------|------------|-----------------------|------------------------|------------------------|
| | | | DEPA | RTME | T OF | DAMOC | TER SO | CIENCE | & ENC | GINEER | SUING | | | | | Course Outcomes | Attainment Level | CO Attainment Level |
| | | | | COU | tse wi | SE - PO | AND P | SO AT | LAINM | ENT | | | | | | | Internal Assessment | Course Exit Survey |
| | | | | | | | | | | | | | | | | CS100.1 | - | 2 |
| Nine | | | | | | | | | | | | I | | | | CS100.2 | + | 2 |
| Faculty: | BINI | OMMO | N | | | | | | | | | | | | | CS100.3 | e | 2 |
| Course Code: | CS10 | 0 | | | | | | | | | | Π | | | | CS100.4 | 3 | 3 |
| Course Name: | COM | PUTER | t PROG | RAMM | SNG | | | | . T | | | | | | | CS100.5 | • | 2 |
| Class & Semester | | | CSI | I & S2 | | | Bi | ttch Yes | IT : BAT | ICH 201 | 17 -2021 | 1 | | | | CS100.6 | 9 | 2 |
| / | 2 | 5 | | | - | ł | | | | | | | | | | | 1.6 | 2.17 |
| CS100.1 | 2 | 201 | P03 | P04 | FOS | POG | F07 | P08 | 600 | 1 010 | 1102 | 1 1 | 2 | 502 I | 203 | | | |
| CS100.2 | 2 | 2 | 3 | 2 | | | | | | | | - | 2 | - | n | Veightage 33 for Inte | rnal and Weightag | e 67 for external |
| CS100.3 | 2 | 2 | 3 | 2 | | | 94 | • | | | | 1 | 7 | 2 | 2 | CO for CS100 | 0.53 | |
| CS100.4 | 2 | 2 | 3 | 2 | | | | | | | | - | 2 | 2 | Π | | | 1 |
| CS100.5 | 7 | 2 | 2 | 2 | | | | | | | | H | 2 | m | T | | | |
| CS100.6 | 2 | 2 | 3 | 2 | | | | | | | | 1 | 2 | - | 1 | | | |
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| of each PO | 2.00 | 2.0 | 2.7 | 2.0 | | | Ser. | | | | | 1.0 | 1.0 | 2.0 | 2.0 | , | | |
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| PO.& PSO Attainment(C O with 33-67) | 1 SK | 0.35 | 0.47 | | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.35 | 0.35 | | | |
| | | | | - 04 | Indirec | t Attain | ment | | | | | | Att | ainmen | Ĩ | / | | |
| Indirect | 1.44 | 1.44 | 1.93 | 1.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.72 | 0.72 | 1.44 | 1.44 | NOV | | |
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Note:

the same course for KTU since 2015, or the no. of different classes for which 3. Only those for which University results are out need to be included.

B2E3002

Reg. No.

O._____ Name:_____ APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY SECOND SEMESTER B.TECH DEGREE EXAMINATION, MAY 2017

Course Code: CS100 Course Name: COMPUTER PROGRAMMING (CS, IT)

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all Questions.

| 1. | What are identifiers? Give the rules for forming identifiers in C. | (3) |
|-----|-------------------------------------------------------------------------------------|--------|
| 2. | What do you mean by associativity? What is the associativity of unary operator. | s?(2) |
| 3. | Explain the use of continue statement with the help of an example. | (3) |
| 4. | What are library functions? | (2) |
| 5. | What is the use of a function prototype? Give the function prototype of a fur | nction |
| | accepting one float value and an integer array and return a float array. | (3) |
| 6. | Write a function to compute the length of a string declared using a provariable.(3) | ointer |
| 7. | How do you initialize a two dimensional array during declaration? | (2) |
| 8. | What are enumerated data types? How ordinal values are assigned to its member | s?(3) |
| 9. | Explain the difference between *ptr++ and (*ptr)++ if ptr is pointing to the | first |
| | element of an integer array. | (3) |
| 10. | With an example, show how you can access the members of a structure val | riable |
| | using a pointer to the variable. | (2) |
| 11. | Explain any three file opening modes? | (2) |
| 12. | How can you perform read and write operations on an unformatted data file? | (3) |
| 13. | Explain static storage class with the help of an example. | (2) |
| 14. | Explain the arguments passed to the main function as command line arguments. | (3) |
| 15. | What is a NULL pointer? | (2) |
| 16. | Explain the use of indirection operator with the help of an example. | (2) |

B2E3004

Total Pages: 2

Reg No.:____

Name:

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY SECOND SEMESTER B. TECH DEGREE EXAMINATION, JULY 2017

Course Code: CS100

Course Name: COMPUTER PROGRAMMING (CS, IT)

Max. Marks: 100

Duration: 3 Hours

PART A Answer all Ouestions.

| | Answer un Questions. | |
|----|--------------------------------------------------------------------------------------------------------------|-----|
| 1 | What is a variable? How are the variables declared in C? | (2) |
| 2 | How does $x++$ differ from $++x$? Explain with suitable examples. | (3) |
| 3 | Give the declaration of variable for storing the string "PROGRAMMING" in C. | (2) |
| 4 | What is the purpose of a switch statement? | (2) |
| 5 | Give the differences between while and do-while statement | (3) |
| 6 | What are formal arguments and actual arguments in a function? | (2) |
| 7 | What are function prototypes? Why do we use function prototypes? | (3) |
| 8 | How is an array name interpreted when it is passed to a function? | (2) |
| 9 | How do you declare a pointer variable? What is the significance of the datatype included in the declaration? | (3) |
| 10 | How do you interpret the following function declaration? int *p(char a[]) | (2) |
| 11 | What is the purpose of typedef feature? | (2) |
| 12 | What is union? How does it differ from a structure? | (3) |
| 13 | What do you mean by opening of a file? How is this accomplished? | (3) |
| 14 | What are enumeration constants? How ordinal values are assigned to them? | (3) |
| 15 | Discuss the different parameters that are passed to main function as command line arguments. | (3) |
| 16 | Explain register storage class with the help of an example. | (2) |
| | | |

PART B

Answer any four questions. Each carries 8 marks.

| 17 | a) | Write a C program to test whether a given number is palindrome or not. | (5) |
|----|----|----------------------------------------------------------------------------------------------------------|------------|
| | b) | Discuss the differences between break and continue statements in C. | (3) |
| 18 | a) | Write a C program to find the largest and smallest numbers and their locations in an array of n numbers. | (5) |
| | b) | Explain recursion with the help of an example. | (3) |
| 19 | a) | Write a C program to sort a set of numbers using bubble sort | (6) |
| | b) | Discuss any four bit level operators with suitable examples | (0) |
| 20 | a) | Write a C program to find the transpose of a matrix | (4) |
| | b) | How can you access structure members using a pointer to structure variable? | (0) |
| 21 | a) | Write a C program to concatenate two strings without using any standard library function. | (2) (6) |
| | b) | What is the use of an indirection operator? | (2) |

and so

B2E3004

PART C

Answer any two questions. Each carries 14 marks.

| 22 | a) | Write a function to perform binary search on a set of sorted numbers. Write a complete C program which accepts a sorted array of N numbers and invokes the | (10) |
|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| | | function to check for the presence of a particular key element in the array. | (1) |
| | b) | Compare formatted files and unformatted files | (4) |
| 23 | a) | Write a program to count the number of vowels, consonants, digits and special | (10) |
| | | characters in a text file. | |
| | b) | Discuss the different parameter passing techniques. | (4) |
| 24 | a) | A library database maintains following information about books:- book_id, name, | (10) |
| | -, | author, no_of_copies. Write a program to sort the books based on the decreasing | |
| | | order of number of copies available. | (1) |
| | b) | What are array of pointers? How do you declare an array of pointers? | (4) |

,E3

| Reg No.: | Name: | |
|----------|----------------------------------------------------------------------------------------------------------------------------------|----------------|
| | APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY FOURTH SEMESTER B.TECH DEGREE EXAMINATION, JULY 2017 | |
| | Course Code: CS100 | |
| | Course Name: COMPUTER PROGRAMMING (CS, IT) | |
| Max. Ma | arks: 100 Duration: 3 Ho | ours |
| | PART A Answer all Questions | |
| | Answer un grossierts | 110 |
| 1 | Variable-1 mark, Declaration of variables -1 | |
| 2 | x++ with example – 1.5 marks, ++x with example – 1.5 marks | |
| 3 | char str[] = "PROGRAMMING" or char str[12]= "PROGRAMMING" - 2 marks | |
| 4 | Purpose of switch statement - 2 marks | |
| 5 | Any three differences- 3 marks | |
| 6 | Formal arguments(1 mark), Actual argument (1 mark) | |
| 7 | function prototype(1.5 marks), use of function prototypes (1.5 marks) | |
| 8 | Array name is a pointer to the first element of the array, hence call by reference method of parameter passing happens (2 marks) | |
| 9 | Syntax of declaring a pointer variable (1.5 marks) Significance of the datatype(1.5 marks) | 2 |
| 10 | P is a function which accepts a character array and returns a pointer to an integer variable(2 marks) | |
| 11 | typedef feature(1.5 marks) +example(0.5 marks) | |
| 12 | Union(1 mark) difference between structure and union(2 marks) | |
| 13 | opening of a file(1 mark) Explain fopen () and different modes - 2 marks | |
| 14 | enumeration constants(1 mark) example of ordinal value assignment(2 marks) | |
| 15 | Parameters – datatype and function of each parameter(3marks) | |
| 16 | Explain register storage class(1.5 marks), example(0.5 marks) | |
| | PARTB | _ |
| 10 . | Answer any 4 complete questions, each having 8 marks | |
| 17 a) | Complete program with no syntax errors(5 marks) | |
| b) | differences between break and continue- any three (3 marks) | (it a trained |

- and a second sec

| a) | Finding largest number- 2 marks | |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Finding smallest number- 2 marks | |
| | Printing their positions-1 mark | |
| b) | Explain Recursion(1.5 marks), example(1.5 marks) | 042. |
| a) | Complete program with no syntax errors(6 marks) | |
| b) | any four bit level operators with suitable examples(0.5 marks each)- 2 marks | |
| a) | Complete program with no syntax errors(6 marks) | |
| b) | access structure members using a pointer to structure variable using -> operator + example(2 marks) | |
| a) | Complete program with no syntax errors(6 marks) | |
| | (Concatenation by using library function (1.5 marks)) | |
| b) | use of indirection operator (*) with example (2 marks) | |
| | PART C | |
| | Answer any two questions each having 14 marks | |
| a) | Function for binary search (6 marks). | 100 |
| | Complete program with no syntax errors(10 marks) | |
| b) | Compare formatted files and unformatted files(4 marks) | 181 |
| a) | Complete program with no syntax errors(10 marks) | |
| | (Opening and accessing text from file - 2 marks | |
| - | Each computation carries 2 marks each- (4*2)=8 marks) | |
| b) | Call by value (2 marks), call by reference (2 marks) | |
| a) | Complete program with no syntax errors(10 marks) | |
| | (Creating a library database by accepting information from user -4 marks | |
| | Sorting based on number of copies and displaying result - 6 marks) | |
| 1 | Lice of array of pointers(2 marks) declaration (2 marks) | |
| | a) b) a) | a) Finding largest number- 2 marks Finding smallest number- 2 marks Printing their positions-1 mark b) Explain Recursion(1.5 marks), example(1.5 marks) a) Complete program with no syntax errors(6 marks) b) any four bit level operators with suitable examples(0.5 marks each)- 2 marks a) Complete program with no syntax errors(6 marks) b) access structure members using a pointer to structure variable using -> operator + example(2 marks) a) Complete program with no syntax errors(6 marks) (Concatenation by using library function (1.5 marks)) b) use of indirection operator (*) with example (2 marks) complete program with no syntax errors(6 marks) (Concatenation by using library function (1.5 marks)) b) use of indirection operator (*) with example (2 marks) a) Function for binary search (6 marks). (Complete program with no syntax errors(10 marks) b) Compare formatted files and unformatted files(4 marks) a) Complete program with no syntax errors(10 marks) (Opening and accessing text from file - 2 marks Each computation carries 2 marks each- (4*2)=8 marks) b) Call by value (2 marks), call by reference (2 marks) complete program with no syntax errors(10 marks) (Creating a library database by accepting information from user -4 marks Sorting based on number of copies and displaying result - 6 marks) |

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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY.

| Internal Test – I | | | Regulations - 2015 | | | |
|-------------------------------------|------------------------|-----|------------------------------|------|-------------------------|--|
| Programme: B. Tech CSE Semester: II | | | Max. Marks: 50 Duration: 2 H | | | |
| B-4-1:0017 | Course Code & Title:CS | 100 | COMPUTER PR | OGRA | MMING | |
| Datch 2017 | Class- 2CS1 & CS2 | D | ate-9.02.2018 | 111 | 16.2.00 PWI to 4.00 PWI | |
| Knowledge | K1 · Remembering | | K3 - Applying | | K5 – Evaluating | |
| Lovela (KI) | V9 . IIndonaton din a | | IZA Analyzing | | K6 Creating | |

Answer all questions

PART A

| NO. | Question | Marks | CO | KL |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|----|
| 1 | Write a program to find the largest of three numbers using conditional operator | 5 | C01 | K3 |
| 2 | What will be the output of the following code? Explain inti=-1,j=-1,k=0,l=2,m; $m = i++ \&\&j++\&\&k++ \parallel1;$ printf("%d %d %d %d %d %d",i,j,k,l,m); | 5 | CO1 | K5 |
| 3 | Differentiate between entry controlled and exit controlled loop with example | 5 | CO 1 | K1 |
| 4 | Explain various tokens in C | 5 | C01 | K1 |

PART B

Answer all questions

| NO. | Question | Marks | CO | KI |
|-----|------------------------------------------------------------------------|-------|-----|----|
| 1 | Write a C program to display the count of prime numbers within a limit | 10 | C01 | K3 |
| 2 | Write a menu driven C program to perform the following | 10 | C01 | K |

| | (i) Factorial of a number.(ii)Generate Fibonacci series up to a limit | | | |
|---|--------------------------------------------------------------------------------------------------|----|-----|----|
| 3 | a)Write a C program to check whether a given number is palindrome or not | 10 | C01 | К3 |
| | b) Discuss the differences between break and continue statements in C | | | |

SCMS SCHOOL OF ENGINEERING & TECHNOLOGYVidya Nagar, Karukutty,Ernakulam-683582

Computer Science & Engineering SemesterII COMPUTER PROGRAMMING

Internal Test - I

Feb 2018

E

Max Marks:50 Time: 2Hr

Answer all questions PART A

1. Write a program to find the largest of three numbers using conditional operator.

#include <stdio.h>

intmain()

}

{
 int a, b, c, max;
 printf("Enter Three Integers\n");
 scanf("%d %d %d", &a, &b, &c);
 max = (a > b) ? ((a > c)? a: c): ((b > c)? b: c);
 printf("Maximum Number is = %d\n", max);
 return 0;

2. What will be the output of the following code? Explain inti=-1,j=-1,k=0,l=2,m; m = i++ &&j++&& k++ || --l; printf("%d %d %d %d %d %d",i,j,k,l,m);

output: 0 0 1 1 1

3. Differentiate betweenentry controlled and exit controlledloop with example.

| Entry Controlled Loop | Exit Controlled Loop |
|-----------------------------------------------------------------------------|------------------------------------------------------------------|
| Test condition is checked first, and then loop body will be executed. | Loop body will be executed first, and then condition is checked. |

| If Test condition is false, loop body will not be executed. | If Test condition is false, loop body will be executed once. |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| for loop and while loop are the examples of Entry Controlled | do while loop is the example of Exit controlled loop. |
| Entry Controlled Loops are used when checking of test condition is mandatory before executing loop body. | Exit Controlled Loop is used when checking of test condition is mandatory after executing the loop body. |
| int count=100; | int count=100; |
| while(count<50) | do |
| printf("%d",count++); | { printf("%d",count++); |
| | }while(count<50); |

- 4. Explain various tokens in C.
 - C tokens are the basic buildings blocks in C language which are constructed together to write a C program.
 - Each and every smallest individual units in a C program are known as C tokens. C tokens are of six types. They are,
 - 1. Keywords (eg: int, while),
 - 2. Identifiers (eg: main, total),
 - 3. Constants (eg: 10, 20),
 - 4. Strings (eg: "total", "hello"),
 - 5. Special symbols (eg: (), {}),
 - 6. Operators (eg: +, /,-,*)

[4*5=20Marks]

PART B

 Write a C program to display the count of prime numbers within a limit. #include <stdio.h>

voidmain()

```
{
inti, j, n, flag,p=0;
```

```
printf("Find prime numbers between 1 to : ");
   scanf("%d", &n);
   printf("All prime numbers between 1 to %d are:\n", n);
   for(i=2; i<=n; i++)
       flag = 1;
       for(j=2; j<=i/2; j++)
       {
                if(i\% == 0)
                ł
                        flag = 0;
                       break;
                }
        }
        if(flag==1)
        ł
               p=p+1;
                      printf("%d, ", i);
        }
      }printf("\n%d",p);
    }
2. Write a menu driven C program to perform the following
           Factorial of a number.
   (i)
           }
   (ii)Generate Fibonacci seriesup to a limit
        #include <stdio.h>
        intmain()
        {
        inti,f=1,num,ch,a, b, c, terms;
        printf("1.factorial of a no 2.fibanocci series\n");
        printf("Enter the choice");
        scanf("%d",&ch);
          switch(ch)
          {
          case 1:
        printf("\nEnter a number: ");
```

```
scanf("%d",&num);
  for(i=1;i<=num;i++)
  {
     f=f*i;
  3
printf("Factorial of %d is: %d",num,f);
  break;
 case 2:
printf("Enter number of terms: ");
scanf("%d", &terms);
     a = 0;
     b = 1;
     c = 0;
printf("Fibonacci terms: \n");
for(i=1; i<=terms; i++)
     {
printf("%d\t", c);
        a = b;
        b = c;
        c = a + b;
     }
     break;
 }
}
```

3. a)Write a C program to check whether a given number is palindrome or not

```
printf("%d is a palindrome.", num);
    else
printf("%d is not a palindrome.", num);
```

b) Discuss the differences between break and continue statements in C.

| S.No. | break | continue |
|-------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| | break statement is used in switch and | |
| 1. | loops. | continue statement is used in loops only. |
| | When break is encountered the switch | When continue is encountered, the |
| | or loop execution is immediately | statements after it are skipped and the |
| 2. | stopped. | loop control jump to next iteration. |
| | <pre>#include<stdio.h> voidmain() { inti; for(i=0;i<5;++i) {</stdio.h></pre> | <pre>#include<stdio.h> voidmain() { inti; for(i=0;i<5;++i)</stdio.h></pre> |
| | if(i==3) | { |

```
if(i==3)
break;
printf("%d ",i);
```

}

}

}

nti; for(i=0;i<5;++i) if(i==3) continue; printf(``%d``,i); }

[3*10=30Marks]

}

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY.

| Internal Test – II | | | Regulations · 2015 | | |
|-------------------------------------|------------------------|------|----------------------------|------|-----------------|
| Programme: B. Tech CSE Semester: II | | | Max. Marks: 50 Duration: 2 | | Duration: 2 Hrs |
| 7 . 1 | Course Code & Title CS | 1000 | | Tim | 101111111 |
| Batch: 2017 | Class: 20SI & USZ | Da | ite 6.03.2018 | 1111 | |
| Knowledge | K1 · Remembering | | K3 · Applying | | Ko – Evaluating |
| - () | | | 77. 1 1 1 | | TTO O L' |

Answer all questions

e

C

PART A

| NO. | NO. Question | | CO | KL |
|-----|--------------------------------------------------------------------------------|---|-----|----|
| 1 | Explain declaration and initialization of 1-d and 2-d arrays in C with example | 4 | CO2 | K1 |
| 2 | Explain function and its different categories | 4 | CO4 | K1 |
| 3 | Write a program to find largest and smallest element in an array | 4 | CO2 | К3 |
| 4 | Write a C program to sort a set of names | 4 | CO5 | K3 |
| 5 | Explain Different Parameter Passing Methods with example | 4 | CO4 | K1 |

PART B

Answer all questions

| NO. | Question | Mark 8 | co | KL |
|-----|------------------------------------------------------------------------------------------------------------|-----------|-----|----|
| 1 | Write a C program to find the transpose of a matrix and check whether the given matrix is symmetric or not | 10 | CO2 | K3 |
| 2 | Write a menu driven program to find the sum of | 10 | CO4 | К3 |

| | (i) | Sine series | | | 11 |
|---|-----------------------|--------------------------------------------------------------------|----|-----|----|
| | (ii) | (ii) Cosine Series | | | |
| | (iii) | iii) Exponential series | | | |
| 3 | Write a n Triangle | nenu driven program to display (i) Floyds (ii) Pascals Triangle | 10 | CO4 | K3 |
| | | | | | |

SCMS SCHOOL OF ENGINEERING & TECHNOLOGYVidya Nagar, Karukutty, Ernakulam-683582

Computer Science & Engineering SemesterII COMPUTER PROGRAMMING Internal Test – II

March 2018

Max Marks:50 Time: 2Hr

Answer all questions PART A

1. Explain declaration and initialization of 1-d and 2-d arrays in C with example.

Declaration of an array:- We know that all the variables are declared before they are used in the program. Similarly, an array must be declared before it is used. During declaration, the size of the array has to be specified. The size used during declaration of the array informs the compiler to allocate and reserve the specified memory locations.

Syntax:-data_typearray_name[n]; where, n is the number of data items (or) index(or) dimension. 0 to (n-1) is the range of array.

Ex: inta[5]; float x[10];

Arrays can be initialized at the time of declaration when their initial values are known in advance. Array elements can be initialized with data items of type int, char etc.

Ex:-int a[5]={10,15,1,3,20};

An array consisting of two subscripts is known as two-dimensional array. These are often known as array of the array. In two dimensional arrays the array is divided into rows and columns. These are well suited to handle a table of data.

In 2-D array we can declare an array as :

Declaration:- Syntax: data_typearray_name[row_size][column_size];

Ex:-intarr[3][3]; where first index value shows the number of the rows and second index value shows the number of the columns in the array. Initializing two-dimensional arrays: Like the one-dimensional arrays, two-dimensional arrays may be initialized by following their declaration with a list of initial values enclosed in braces. Ex: inta[2][3]= $\{0,0,0,1,1,1\}$; initializes the elements of the first row to zero and the second row to one. The initialization is done row by row.

2. Explain function and its different categories.

function is a group of statements that together perform a task. Every C program has at least one function, which is **main()**, and all the most trivial programs can define additional functions.

A function **declaration** tells the compiler about a function's name, return type, and parameters. A function **definition** provides the actual body of the function.

Afunction depending on whether the arguments are present or not and whether a value is returned or not, may belong to one of following categories

- 1. Function with no return values, no arguments
- 2. Functions with arguments, no return values
- 3. Functions with arguments and return values
- 4. Functions with no arguments and return values.
- 3. Write a program to find largest and smallest element in an array.

```
#include <stdio.h>
intmain()
{
intarr[100], n, i, small, large;
printf("Enter the number of elements you want to insert : ");
scanf("%d", &n);
for (i = 0; i < n; i++)
{
printf("Enter element %d : ", i + 1);
scanf("%d", &arr[i]);
 }
small = arr[0];
large = arr[0];
for (i = 1; i < n; i++)
{
if(arr[i] < small)
 {
small = arr[i];
}
if (arr[i] > large)
{
large = arr[i];
```

```
}
          }
         printf("\nLargest element is : %d", large);
         printf("\nSmallest element is : %d", small);
         return0;
          }
4. Write a C program to sort a set of names.
   #include <stdio.h>
   #include <conio.h>
   #include <string.h>
   void main()
   {
    char name[10][8], Tname[10][8], temp[8];
   inti, j, N;
  clrscr();
  printf("Enter the value of Nn");
  scanf("%d", &N);
  printf("Enter %d namesn", N);
   for(i=0; i< N ; i++)
   {
  scanf("%s",name[i]);
  strcpy (Tname[i], name[i]);
   }
   for(i=0; i< N-1 ; i++)
   ł
    for(j=i+1; j< N; j++)</pre>
    ł
     if(strcmpi(name[i],name[j]) > 0)
  strcpy(temp,name[i]);
  strcpy(name[i],name[j]);
  strcpy(name[j],temp);
     }
    }
   }
                                        -----n");
 printf("n-----
 printf("Input NamestSortednamesn");
                                            -----n");
 printf("-----
                                    -----
  for(i=0; i< N ; i++)
  {
 printf("%stt%sn",Tname[i], name[i]);
  }
                                -----n");
 printf("--
```

5. Explain Different Parameter Passing Methods with example.

Pass By Value¹: This method uses *in-mode* semantics. Changes made to formal parameter do not get transmitted back to the caller. Any modifications to the formal parameter variable inside the called function or method affect only the separate storage location and will not be reflected in the actual parameter in the calling environment. This method is also called as *call by value*.

```
// C program to illustrate
  // call by value
 #include <stdio.h>
 void func(int a, int b)
 {
     a += b;
 printf("In func, a = %d b = %d\n", a, b);
 }
int main(void)
£
int x = 5, y = 7;
    // Passing parameters
func(x, y);
printf("In main, x = \% d y = \% d n", x, y);
    return 0;
}
```

}

Pass by reference(aliasing) : This technique uses *in/out-mode* semantics. Changes made to formal parameter do get transmitted back to the caller through parameter passing. Any changes to the formal parameter are reflected in the actual parameter in the calling environment as formal parameter receives a reference (or pointer) to the actual data. This method is also called as call by reference. This method is efficient in both time and space.

// C program to illustrate
// call by reference

#include <stdio.h>

```
void swapnum(int* i, int* j)
{
int temp = *i;
 *i = *j;
 *j = temp;
}
int main(void)
{
int a = 10, b = 20;
 // passing parameters
swapnum(&a, &b);
```

```
printf("a is %d and b is %d\n", a, b);
    return 0;
```

```
}
```

6

[5*4=20Marks]

PART B

1. Write a C program to find the transpose of a matrix and check whether the given matrix is symmetric or not.

#include<stdio.h>

intmain()

```
{
intA[10][10];
intB[10][10];
inti,j,r, c,isSymmetric;
printf("Enter the limit");
scanf ("%d%d",&r,&c);
printf("Enter elements in matrix of size 3x3: \n");
for(i=0;i<r;i++)
{
for(j=0;j<c;j++)
}
</pre>
```

```
scanf("%d",&A[i][j]);
}
for(i=0;i<r;i++)
for(j=0;j<c;j++)
               B[i][j] = A[i][j];
}
isSymmetric=1;
for(i=0;i<r;i++)
for(j=0;j<c;j++)
if(A[i][j]!=B[i][j])
ł
isSymmetric=0;
break;
}
}
}
if(isSymmetric==1)
ł
printf("\nThe given matrix is Symmetric matrix: \n");
}
else
 ł
printf("\nThe given matrix is not Symmetric matrix.");
 ł
 }
```

2. Write a menu driven program to find the sum of (i) Sine series (ii) Cosine Series iii)

```
Exponential series
```

#include<stdio.h>
#include<conio.h>
void main()

```
inti,n,j,ch;
float x,t,s,r;
char c='y';
clrscr();
do
```

{

printf("\n1.SINE SERIES 2.COSINE SERIES 3.EXPONENTIAL SERIES");
printf("\n ENTER THE CHOICE");

```
scanf("%d",&ch);
```

switch(ch)

{

```
case 1:
```

```
printf("\nENTER THE LIMIT");
scanf("%d",&n);
printf("\nENTER THE VALUE OF x:");
scanf("%f",&x);
r=((x*3.1415)/180);
t=r;
s=r;
i=2;
for(j=2;j<=n;j++)
{
    t=(t*(-1)*r*r)/(i*(i+1));
    s=s+t;
    i=i+2;
}
```

{
printf("\nSUM OF THE GIVEN SINE SERIES IS %4f",s);

break;

case 2:

```
printf("\nENTER THE LIMIT ");
scanf("%d",&n);
printf("\nENTER THE VALUE OF x:");
scanf("%f",&x);
r=((x*3.14)/180);
t=1;
s=1;
i=1;
for(j=2,j<=n;j++)
{
    t=((-1)*t*r*r)/(i*(i+1));
    s=s+t;
    i=i+2;
}
printf/"\n SUM OF THE COOD IF CERECO
```

printf("\n SUM OF THE COSINE SERIES IS %f',s); break;

)

```
case 3:
```

```
printf("\nENTER THE LIMIT");
scanf("%d",&n);
printf("\nENTER THE VALUE OF x:");
scanf("%f",&x);
t=1;
s=1;
for(i=1;i<n;i++)</pre>
```

```
t=(t*x)/i;
```

```
s=s+t;
```

}

printf("\nSUM OF EXPONENTIAL SERIES IS %f",s); break;

default:

printf("\n WRONG CHOICE");

```
}
printf("\n DO U WANT TO CONTINUE Y/N");
scanf("%c",&c);
}
while(c=='y');
getch();
```

```
}
```

3. Write a menu driven program to display (i) Floyds Triangle (ii) Pascals Triangle

```
#include<stdio.h>
```

#include<conio.h>

void main()

{

```
int rows, coef = 1, space, i, j;
```

clrscr();

printf("\n1. (1) Floyds Triangle (2i) Pascals Triangle ");

```
printf("\n ENTER THE CHOICE");
```

```
scanf("%d",&ch);
```

```
switch(ch)
            {
             case 1:
             printf("Enter number of rows: ");
    scanf("%d",&rows);
    for(i=0; i<rows; i++)</pre>
             for(space=1; space <= rows-i; space++)</pre>
             printf(" ");
             for(j=0; j <= i; j++)
              {
             if (j==0 || i==0)
             coef = 1;
             else
   coef = coef^{(i-j+1)/j};
             printf("%4d", coef);
   printf("\n");
   }
 break;
 case2:
printf("Enter number of rows: ");
scanf("%d",&rows);
for(i=1; i<= rows; i++)
for(j=1; j <= i; ++j)
printf("%d ", number);
       ++number;
    } printf("\n");
  }
}
Getch();
```

}

[3*10=30Marks]

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, VIDYA NAGAR, KARUKUTTY-683582 Department of Computer Science & Engineering Second Semester CS 100COMPUTER PROGRAMMING Assignment Question 1

- 1. Which of the following expressions are true
 - a) !(5+5>=10) b) 5+5==10||1+3==5 c) 5>10||10<20&&3<5 d) 10!=15&&!(10<20)||15>30

COL

- 2. Write c assignment statements to evaluate the following equations
 - a) area= $\prod r^2 + 2\prod rh b$)torque= $\underline{2m1m2}$ g c)side= $\sqrt{(a^2+b^2-2abcosx)}$

m1+m2

d)energy=mass[acceleration*height +velocity²/2]

```
3. What is the output of the following program?
    #include <stdio.h>
    #include<conio.h>
    void main()
    {
        int x=5,y=10,z=10;
    clrscr();
        x=y==z;
        printf("%d",x);
        getch();
   What is the output of the following program? Explain the output
4.
    #include <stdio.h>
    #include<conio.h>
    void main()
    ł
        int x=10,;
    clrscr();
        if(x==10)
        ł
        printf("true");
        }
        else
        {
        printf("false");
        getch();
    }
```

- 5. What is the output of the followingprintf statements?
 - a) printf("%d %c %f ",10,'x',1.23);
 - b) printf("%2d %c %4.2f",1234,,'x',1.23);
 - c) printf("%d \t %4.2f",1234,456);
 - d) printf("\"%08.2f \" ",1234);
 - e) printf("%d %d %d ",10,20);
- 6. In response to the input statement scanf("%4d %*%d",&year,&code,&count); the following data is keyed in 198837.45.what values does the computer assign to the variable year,code and count.
- 7. Find the errors if any in each of the following segments
 - a) if(x+y=z &&y>0) printf(" ")
 - b) if(code>1); a=b+c; else a=0;
 - c) if ((p < 0) || (q < 0))
 - printf(" sign is negative")
- 8. Assume x=10, state whether the following logical expressions are true or false
 - a) x = = 10 && x > 10 && !x
 - b) x = =10 ||x > 10 && !x
 - c) $x = =10 \&\& x > 10 \parallel !x$
 - d) x = =10 ||x > 10 || !x
- Assuming that x=5,y=0 and z=1. What will be their values after executing the following code segments
- a) if(x&&y) x=10; else y=10; b) if($\mathbf{x} \| \mathbf{y} \| \mathbf{z}$) y=10; else z=0; c) if(x) if(y) z=10; else z=0; d) if(x==0||x&&y)if(!y)z=0; else y=1; 10)What is the output of the following program?

```
#include <stdio.h>
#include <stdio.h>
#include <conio.h>
void main()
{
    intm=1;
    clrscr();
    if(m==1)
    {
        printf("Delhi");
        if(m==2)
```

```
printf("Chennai");
                   else
                   printf("Banglore");
           }
           else
           {
                  printf("end");
          }
          getch();
 11) What is the output of the following segment when executed.
 int x=10,y=20;
      if((x<y)||(x+5)>10)
         prinf("%d",x);
     else
        prinf("%d",y);
12) Write a program that will read the value of x and evaluate the following function
        \{1 \text{ for } x > 0\}
       Y = \{0 \text{ for } x=0\}
        { -1 for x<0
        Using
        a) nested if statements b)else if statements c) conditionaloperator
13)Write a program to display a) Floyds triangle b) Pascal's triangle
```

C Hssignments 0



Submitted by

Rosemal Biju CS II, 52 Ron. NO - 22

Chapter-3 Kevien Questions a 3.5 which of the following expression are true? (a) ! (5+5 >=10) Jalse (b) 5+5 = = 10 || 1+3 = = 5Goncie (c) 5>10/10 ≥ 20 ¢ ¢ 325 C Saule (d) 10! = 15 \$ \$! (10220) || 15>30 False Q 3.7 White contignment statements to evaluate the following equations. (a) Anea = TIM2 + 2TT mh. # include 2 stolio.h> # include < conio.h> void main() Int gi, h; float = anea;

clasca (); paints ("enter the number:"); Scapf (1/0 d 1/0 d", 491, 4h); area - (3.14 * * * a + 2 * 3.14 * 7 * h); paints (" % F", area); getch(); Gonque - 2Mim2. g (b) # include <stdio.h> # include ~ conio.h> void main () In m, m, x, y; float t; Clarscal (); paints (" Gotes the value of mi, m2 n"); Seans (" "/oct "/of", \$m, , \$m); $x = (2 * m, * m_2 * 9.5);$ y = (m, +m2)

C

C

t = ocly; paintr (" % f", t); getch(); (c) Side = $\int a^2 + b^2 - 2ab \cos x$ # include < stdio.h> # include 1 conto.h> # include 2 math. h> # define cos x void main() lot a, b, p,n; Float side; clasca (); paintre ("Enter the value of a , b, re In"); scanf (" % od % od % od ", 4a, 4b, 4x); p = (a * a + b * b) - (2 * a * b); $M = \cos(\alpha);$ Side - sque (p*n);

Ć

paint F ("% F", side); getch(); (a) Chargy - mans [acceleration × height + (relocity)2 # include (sidio.h> # include 2 conio.h> # include 2 math. h> void main () Int mihins; flocut energy; clascaco; acceleration = 9-8; paints (" Coter the values:"); Scanf (" % d % d % d", 4m, 4h, 4v); X = (9.8 *h); g = (v*v)|2; energy - m* (x+y); paint F ("% F', energy); geich ();

```
3.13 What is printed by following program?
   # include <stdio.h>
  # include 1 conio.h>
  void main()
   E
  int oc=5, y=10, oc=10;
  clasca ();
  x = y = = \mathbf{z};
  prints ( "yod", x);
 getch ();
 3
 Output : 1
Q 3.16 What is the output of the following
program : explain the output
# include 2stolio.h>
# include ( conio.h>
void main()
1n1 = 10; 9 = 10; 7 = 10;
12(x==20)
```

```
paintr ("true");
   3
 else
   5
   paintr (" false");
getch();
 ?
oulput : mue
a 3.20 What do the output of the following regment
 when executed
 In1 m= -14, n=33
 paints (" "/od \n", m/n * 10);
 n = -n;
 paintre [" god In", min * 10;
 Output : - 40
             40
```

C

Chapter - 4 4.5 State the output produced by the following painif statements (a) paintr (" % d % C % F", 10, 'x', 1.23); Output 10 x 1.230000 (b) paints ("% 201 10 C 1/0 4.21", 1234, 'x', 123); oulput: conow (2 comma) otherwise, 1234 oc 1-23 (c) paintr (" % d 12 % 4.2F", 1234, 456); oulput (d) paintr [" 1" 10 08.25 \"", 1234); oulpul : " 00123.40" C (e) paints ("% of % of % of % 10,20); output: 10200 Q 4.10 In response to the input statement Scanf (" do 4 d 10 * 10 d", & year, & code, & count); the following class is keyed in: 19883745

What values does the computer anigh to the variable year, code and court? Output - 1988 <u>ehapter-5</u> a 5.3 find the esviore, 19 any is each of the following statements (a) 12 (x+y=z. ¢ ¢ y>0) Solu: 12 (x+y==z) ¢ ¢ (y>0) pointr (" ") 3 pnin-F (" "); Ans: COVIOI Sal: 17 (code >1) (b) 17 (code >1); a=b+c; a = b+c else else a=0; $\alpha = 0$ output: enon Sol: 13 ((p>0) 1(920) (c) 13 (p 20) // (9 co) printr ("sign is negative"); printr ("sign is negative") Ans: CONOR

5.6 Assuming oc = 10, state whether the following Logical expressions are true or table (a) x == 10 \$\$ \$ x > 10 \$\$ \$ 1.x oulput : False (b) x == 10 || x >10 ¢ d! x output : force (c) x = = 10 \$ \$ x > 10 || x output : false (d) x = = 10 || x >10 || 1x output: ancie & 5.9 Assuming that 2 - 5, y=0, and z=1 initially, what will be their values after executing the following code statements. (a) 17 (x 4 d y). X = 10; else Y = 10; Output 10 10

(b) 19
$$(x||y||z)$$

 $y=|003$
else
 $x = 03$
output
1
0
(c) 13 (x)
 $z=|03$
(c) 13 $(x==0||x||^2)$
 $z=|03$
(c) 13 $(x==0||x||^2)$
 $z=|03$
(c) 13 $(x==0||x||^2)$
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 $z=|03$
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(c) 13 (x)
 $z=|03$
 $z=|03$

(

$$\begin{cases} \\ 10! \quad m=1; \\ 12 \quad (m=-1) \\ \begin{cases} \\ pariotr (" belbi"); & oclpat \\ 13 \quad (m=-2) & 1 \\ pariotr ("chennai"); & 2 \\ else & chennai \\ pariotr (" chennai"); & 3 \\ else & chennai \\ pariotr (" Bangaloze); & 3 \\ Bangaloze. \end{cases}$$

$$\begin{cases} else: & poniotr (" end"); \\ 3 \\ \end{cases}$$

$$\begin{cases} s \cdot 19 \quad cuhal is the ocloal of the follocuing segment \\ cuhan executed ? \\ 1nt x = 10, q = 20; \\ 12 \quad ((x \perp y) | 1 \quad (g(t+5) > 10) \\ poniotr F (" tod", x); \end{cases}$$

C

poninif (" "od", Y);

output-

Programming Exercise

of x and evaluate the following function.

(a) Nested 17 Statements

```
Sol:
# include < statio.h>
# include < conto.h>
void main()
{
float > (.);
paintr (" input x In");
Scant (" ", fx);
```

(x != 0) 3 12 (200) paintr (y"=1"); 12 (2220) pont F ("y = -1"); 3 17 (x = = 0)pontr ("y = o"); getch(); (b) else if Stalements # include <stolio.h> # include 2 conio.h> void main() float xiy; clasca (): print F / input x ln");

```
Geanf (" % of", $x);
 12(x)=0)
 S
 13 (200)
  2
  print ("1);
 3
 else
  paint ("-1");
 3
 else
  paintr ("O");
 getch();
(c) Conditional Operator
 # include Lstolio.h>
 # include Lconio.h>
 vaid main ()
 Hoal Yin;
 clasca ();
```

faint F (" Inpeu x In"); scant (" 10f", 4x); g= (x1=0)n ((x20)11:-1):0; pourst (" "lod", Y); getch (); 3 a 5.12 An electricity board charges the following the notes for the use of electricity: For the First 200 units: 80p per unit For the next 100 anits: 90p per anit Beyond 300 units : Rs 1.00 per unit All evers are charged a minimum of Rs. 100 as meter

All work are charged a minimum of no not even the charge . If the total amount is more than RS-400, then an additional subcharge of 15% of total amount is charged write a program to read the names of users and number of abilis consumed end print out the charges with names.

```
include 2stolio.h>
# include ¿conio.h>
void main()
£
float anits, total, net;
chour name;
clasca();
paints (" Input every name and anits In");
Scanf (" % s . % f', & names, & units);
2
 12 (anits L= 200)
      +01al = 100 + 0.80 * cifils;
  che 17 (units 2=300)
      total = 100 + 0.90 * anils;
  che 17 (unik > 300)
        total = 100 + 1.00 * anis);
   3
  17 (total >400)
    5
   net = total + total * 0.15;
```

```
print F ("Gotal = "/of", net);
else
 paintr ("notal = "/of", total);
getch ();
& Infaile a c program to clisplay pascals tailangle
 # include Latdio.h>
 # include Lconfo.h>
 void main()
 3
 Int nows, coethcient -1, space, i, j;
 clisca();
 paints ("Coter number of rocus:");
 Seant (" % d", 4 710 ws);
 fon (1= 0; 12 nows; 1++)
  ton (space =1; space L= nows -1; space ++)
  poniol F (" ");
  fon (j=0; j2=1; j++)
```

13(3-0|| i=0)coethcierst = 1; cler COCHHCIERT = COEHHCIERT (i - j +)];pourse F (" "/ord", coe Hicient); 3 ponot (" In"); 3 neturo; 3 Q Maite a cprogram to display they distingle # include 2stdio.h> # include <conio.h> void main () f 101 Jow; 1,3, nomber=1; clasca(); pointr ("enter number of nows:");

Scant (" Mod", & rows); Fon (i=1 ; i L= 20005; i++) 5 fon (j=1;jL=i;++j) 5 point F (" 1/0 d", numbers); ++ number;

paint F (" In");

} netwo;

3

65 ASSIGNMENT 2 alsociation Submitted by, Maniya Raphel CS-II Rollno. 3

) which of the following expressions are true?
a)
$$(5+5 > = 10)$$

b) $5+5 = = 10$ [1 $1+3 = = 5$
c) $5 > 10$ [1 $10 \le 20$ & & $3 \le 5$
d) $10! = 15$ & & $1(6 \le 20)$ [1 $15 > 30$
Ans: - $.5+5 = = 10$ [1 $1+3 = = 5$ and
 $.5 > 10$ [1 $10 \le 20$ & & $3 \le 5$
are true expressions. They are always true.
2) Write C assignment Statements to evaluate the
following equations:
a) Area = $\pi T a^2 + 2\pi r n h$
b) Torque = $\frac{2m_1m_2}{m_1 + m_2} - g$
c) Side = $\sqrt{a^2 + b^2 - 2ab\cos(x)}$
d) Evergy = mass [acceleration xheight + (velocity)]
Attes: (a) Area

a) Alea #include Lstdio.h> #include 2 conio. h) #include Zmath.h> # define PI 3.141592 void main () 3 int anea, r, h; float area; (lasca(); Printf ("Enter the value for r and h "); Scanf ("%d %d", frifh); anea = PI * Pow(n,2) + 2* PI * n*h; printf ("The area is "{f", area); getch(); 3 6) Torque # include (stdio. h) # include 2000.43 Void main () 3 int mi, m2; float torque ;

closer(); Printf ("Enter the values of masses Land masses Scanf ("% d % d", &m1, &m2); tonque = (2*m1*m2)/(m,+m2)*9.8; Printf ("%,f ", torque); getch(); 9 Side #Include < Stdio. h> #include Lconio. h> # include 2 math. h > vord main () inta, b, x float side; cluser(); printf ("Enter the values of a and b"); Scanf (" % d % d " , # a, # b); printf("Enter the avalue for angle x"); scanf (" % of ", fr); m= 2*a*b* cos(x); pn = pow(a, 2) + pow(b, 2) - m

```
side = squt (n);
Printf ("%f", side);
getch();
d) Energy
#include < stdio . hs
# include 2 conio. h>
# include < math. h>
void main ().
int mass, acceleration, height, velocity ;;
float energy; V;
clousce ();
Printf ("Enter mass, acceleration, height and
       velocity");
Scanf ("lod "lod "lod ", Imass, I acceleration,
        4 height, & velocity";
V= pow (velocity, 2) /2;
energy = (acceleration * height + ) * mass;
printf ("lof", energy);
getch();
```

to 20 and seems to be truce in conditions checking and execute the covresponding block - TRUE. 5) What is the output ? int m = -14, n = 3; printf ("% d \n", m/n * 10); n = -n;printf("%d\n", m(n * 10); Output :- -40 40 Because mand n are integer type. So it neglects the fractional part and do the celubtion, only with the integer part. 6) State the outputs produced by the following printf statements. a) printf ("% d % c % lof", 10, x', 1.23 Ans: 10×1.230000 D pointf ("%2d %. C %04.2f", 1234, x', 1.23 Ans: • 12 X _1.23

One Space

9 Printf ("%dit % 4.2f', 1234, 456); Ans: 1234 d) printf ("\" % 08.2f \"", 123.4);) printf ("% d % d % d %, 10, 20); I) In response to the input statement, scanf ("% 4d % * % d", & year, & code, & count); the following data is keyed in : 19883745

8) Find everors in following segments.
a) if (xry = 3 & & y > 0) printf (" ");
Ans: if ((xry = = 2) & & (y > 0)) printf (" ");
b) if (P < 0) II (a < 0) Printf (" sign is negative");

Ans: if
$$((e \ge 0) | 1 | (a \ge 0))$$

print f ("sign is negative");
a = b + c
else
 $a = 0$
Ans: if $(code > 1)$ if $(code > 1)$
 $a = b + c$; $a = b + c$;
 $else$
 $a = 0$; $a = 0$;
f Assume that $x = 5$, $y = 0$ and $y = 1$ initially.
If so, what will be the outputs?
a) if $(x \notin \xi y)$
 $x = 10$;
 $\xi =$

```
if (x)
    if (y)
     3=10;
   else
     3=0;
D) if (x==011 x 44y)
    if (!y)
      3=0;
  else
     y=1;
10) what is the output of following code ?
  main ()
  ٤
    int m = 1
    \mathcal{G}(m==i)
    Ł
     Printf ("Delhi");
      4 (m==2)
      print (" chennar");
     els
```

else pro printf ("Bangalore"); } else;

Printf ("END");

Output :- Delhi

) what will be the output of following code? int x = 10, y = 20; $\frac{1}{2} ((x \le y) 11 (x + 5) > 10)$ Pruintf ("%d", x); else printf ("%d", y);

Ans: Output :- 10

12) Write a program that will read value of x and evaluate following function.

 $y = \begin{cases} 1 & \text{for } x < 0 \\ 0 & \text{for } x = 0 \\ -1 & \text{for } x < 0 \end{cases}$
a) nested if statements 6) else if statements () conditional operator ?: Ans: Else-if statements # include < stdio.hs # include < como. h > void main () int y, x; cluser(); printf ("Enter the value of x "); &canf ("%d", &x); if (2 20) { y=1; printf("The value of y for given value % d is % d" (x, y);3 elseif(x = = 0)y=0 2 Print (" Value of y for given value % d is % d'xy

else 1 2 y=-1 printf ("value of y for given value ">d is To x,y'');getch(); Output :-Enter the value of x 29 The value of y for given value 29 is 1 Nested if Statements # include < Stdio. h> # include < conio . h> void main () ٤ int x, y; cluser(); paintf ("Enter the value of x"); Scanf ("%d", 4x); if

```
if (x >0)
 3
    y=1 j
   printf("value of y is % d", y );
else
  if(x==)
      y=0;
      printf(" value of y is % d", y);
    else
         y = -1
        print ("value of y is % d", y);
        2
   getch();
```

All users are charged a minimum of Rs 100 as meter charge. If the total amount is more than Rs 400, then an additional surcharge of 15% of total amount is charged. write a program to

head the names of users and number of units consume and print out the charges with names. Ans: -# include 2 stdio. h> #include < conio.h> void mouin () 3 int units; float change; char name [20]; claser(); printf ("Enter the name"); Scanf ("%d", & name); printf ("Enter the total units of electricity used") Scanf ("". & ", & unit); if (unite >0 & & unit < = 200) change = 100 + (units * 0.80); elseif else if (units 2=300) change = 100 + (unit * 0.90);

change = 100 + unit ; if (charge >400) charge = charge + (charge * 15) ; Printf ("The the electricity charge" for "65 is "6f Rs", name, charge); else Printf (" The electricity charge for % 5 is "{f Rs". name, charge); getch(); 14) Write a (program to implement Floyd's triangle.

TRIANGLE

DYD'S Finclude L Stdio. h> #include Lconio. h> void main () E int n, i, j, K=1; chrscr(); printf (" Enter the number of rows"); & canf (" %. d", for); K=1; for (i=1; i2=n; i++) ٤ printf ("1"); for (j=1; j < i+1; j++) printf ("%d \t", K); K=K+1; 3 3 getch (); } Output :- Enter number of nows 3 5 6

write program to implement pascal's triangle Ins. # include < stdio. h> # include < como · h> void main () int x, y, n, a, 2, s; printf ("Enten the las nows"): Scanf ("1.d", In); Print & ("In In"); S=n; for(x=0; x < = n; x + +)5 a =1 for (3==05; 3==0; x++) € Pountf (" u); 5 - - ; for(y=0;y2=2c;y--) Print ("1.d", a); a = (a * (x - y) / (y + i));Printf ("1") getch();

write a program to display cosine and sine service Ans: # include 2 stdio. 4> # include 2 corrio. h> void main () ٤ inti, n, j, ch; float x, t, s, n . choose Porintf (" 1. Sine Series In 2. (asine series "); Pointf ("Enter your choice"); Scamp ("%d", ch); Busitch (ch) Case 1: Printed ("Enter the limit"); Scamp ("1.d", fr); printf ("In Enter the value of x"); scanf (""/.f", &x); n= ((x = 3.1415)/180); t=9; 5=9. 1=2; for (j=2; j2=n; j++) t = (+* (-D****)/(i*(i+1)); 5=5+6; i = i + 2;2

```
Af ("In sum of sine series is %f ", 5);
 oreak ;
case 2:
     Printf ("In Enter the limit");
     scamp ("%d; &n);
     printf ("In Enter the value of x");
      scanf ("%f", fx);
     t=1;
      5=1;
      i=1;
      for(j=2; j_{2}=n; j_{++})
      {
+=((-1)*+*n*n) / (i*(i+1));
        5= 5++;
        i = i+2;
       3
      printf("In sum of cosine series is "/f", 5);
      break;
default:
       paintf ("Invalid choice);
getch();
2
```

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, VIDYA NAGAR, KARUKUTTY-683582 Department of Computer Science & Engineering Semester 2 CS100 COMPUTER PROGRAMMING Assignment Question 2

1. Write a program that uses a function to sort an away of integers CO4

2. White a phogram for matrix addition using pointus

ASSIGNMENT

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Q

Submitted by,

Mariya Raphel 52, CS2 Rollno: 3

Write a program that uses a function to sort an averay of integers. hs: Function - Sort - Array # include 2 Btdio. h > # include < conio. h > void sort (int m, int x[]); Void main () 3 int i . int marks [5] = {40,90,73,81,35}; printf("Marks before Sorting"); for(i=0; 125; 1++) Marks before socherg printf("% odre, marks[i]; pring("\n\n"); Sort (5, marks); printf ("Marks after sorting \n"); for (i=0; 125; i++) printf ("% dit", marks [i]; 2) add & sebular # prentf ("\n\n"); # inlude 2000 RS getch(); Verd main () void sort (int m, int XEI) nine and the second second and and an 3 inti, j, t; for (i=1; i = m-1; i++)doi(j=1; j = m-i; j++)

2 g $\mathcal{C}(x[j-1] > = x[j])$ $t = \chi[j-i];$ x[j-1] = x[j]; and the shelf of a x[J] = t; and que the definition 3 ([] w this on the) I saw her 3 3 Output Marks before sorting 40 90 73 81 35 Marks after Sorting 35 40 73 81 90m2 rella schedu " Write a c program for matrix addition using point 2) Aus: # include < Stdio. hs #include < conio. h> void main () 3 int a[5][5], b[5][5], c[5][5], i, j, m, n; printf ("Enter nousize and coloums size"); Scanf(" %d %d %, &m, &n); printf("Enter first mateix"); 1 + E giaman La La Dig

for(i=0; i2m; i++) for(j=0;j<n;j++) AG bear scanf("%d", (*(a+i)+j)); 3 printf ("Enter the second matrix"); for (i=0; izm; i++) € (j=0; j=n; j++) scanf ("%d", (*(b+i)+j)); 2 3 printf ("Addition"); for (i=0; izm; i++) 3 109 (j=0; j=n; j++) 3 *(*(c+i)+j) = *(*(a+i)+j) + *(*(b+i)+j);printf ("%d", * (*(c+i)+j)); C 3 printf ("\n"); 3 Output Enter nowsize and columnsize F Ł 3 3

Enter first Matrix 4 5 Enter the second matrix 5 4 Addition $= \left(\left(\left(1 + \frac{1}{2} \right) * \right) * + \left(* \frac{1}{2} \right) + \frac{1}{2} \right) \right)$ E. J. Mainprophy by a subscript of a 5 S &



Write a program that uses a function to sort an array of Integers Function-sort-Array * Orclude estable B> * Prelude < Conto. A> Volle sost (But m, But x []) Vold main() ٤ Bot 2; Ent marts [5] = {40, 90, 73, 81, 35}; pronto ("Marks before sortling"); for (1=0; 125; 1++) 3 potente ("%d", marks [0]); pront & (" \n\n"); Sort (5, marks); Pronto ("Marks after sortlyg ("); for (1=0; 125; 1++) { pronte ("%d \t", marks [P]); pronty ("\n\n"); getch(); 7 Volde sost (Ant m, Ent 20[]) ٤ Cont B, J. t; for (1=1; P4=m-1; P++) ş for (j=1; j2=m-e; j++) f P8 (x [p-1]>= x [p])

C

()

t = * [j-1]; ×[j-1]=×[j]; x[j] =+; 3 3 3 Output Marks before sorting 40 90 73 81 35 Marks after sosting 35 40 73 81 90 2 wrête a c program for matrix additton using * Phelude < std lo. A> * Enclude < confo. A> Volde maden() 2 Bot a [5] [5], b [5] [5], c [5] [5], e, j, m, n; poonto ("Enter souseze and column seze"); P Scang ("%d %d", fm, pn); porget ("Enter geost matrex"); for (P=0; P2m; P++) { for (g=0; f=n; f++) 3 Scarf ("%a", (* (a+e)+g)); z pronty ("Enter the second matrix");

$$for (l=0; l=n; l+1)$$

$$f = (*(l+l)+l) = * (*(a+l)+l) + * (*(b+l)+l);$$

$$f = point f ("(n"));$$

$$f = point f ("(n"));$$

$$f = f = forst matrix$$

$$f = forst matrix$$

$$f$$

Maniya Rapher CLASS TEST - I 52 652) Write a program using pointere to compute the sum of all elements stored in an avrany. Ans: #include 2 stdio. h> # include 2 conio. h > Void main () int xp, sum-gi; int $X[5] = \{5, 9, 6, 3, 7\};$ 1=0; P=x; while (125) Sim = Sum + *p; 1 true getch(); = %d", sum); autput Sum = 55 2) Write a function using pointers to exchange the values stored in two locations in the memory. Ans: # include (Stdio. h > # include 2 conio. h> void change (int *, int *);

Void main () int x, y; multiplicate production (52 $\chi = 100$; where the man of the off the provides the pro printf ("Before Exchange "); =printf ("x = %d y = %d in", 2, y); change (\$x, \$y); printf ("After exchange "); printf (" ~ - of) printf ("x=olod y=olod in"?, x, y); getch(); 3 Void eachange (int *a, int *b) ş int t; t = *a; *a = *b; *b = t; 3 Output Before exchange: x=10 y=20 After exchange: X=20 y=10 (* tool . * tool) sponents these

CLASS TEST-I

Sa csa

1. write a program using pointers to compute the sum of all elements stored on an array * Brelude < Stder R> * Include < conto R> Vold mach() ş Bot \$p, sum=0, P; Bnt × [5] = { 5,9,6,3,7} P= 0; P=x; WRPIe (Pc5) Sum= Sum+ *p; C++; P++; 7 poonts ("In sum = o/od", sum); Betch(); 5 artput Sun= 55 2. Curbe a function using pointers to exchange the Values stored on two locations on the memory. * Brelude 2stdlo. h> * Enclude < Copter. A> volle charge (Bnt *, Bnt *); Volde mail () 3 Bont 20, y; X= 10; y = 20;

prong ("Before exchange"); poonf ("x= %d y= %d (n", x, y); charge (pres \$4); party ("After exchange"); poront & ("x= %d y= %d \n", x, y); getch(); Vold change (Brt +a, Brt +b) ent t; t = *a; +a= +b; *b=t; 5 Output Before exchange : x=10 y=20 After exchange : 2= 20 y= 10 and an interest of the second of R

in the second second

VISHNE CLASS VC Ramachandran clan text : 1 which a program using pointer to compute the sum 1.2 of all dementer stouch in an away " so include a states ins # include comions 1 Hold maint? Int & P : sum = 0 ii ; Int x (3) = 15,916, 3,7 mhile (i = 5) Jum = Jum +P: Prot Phint f ("In sum = "lod", sum); Jeleh () output 5mm = 45 ୍ଦ



serre.

t: # include cstdio.hs# include conio.hsvoid maines<math>int * P, som=0; int x[n] = 25, 8, 7, 6, 43i = 0;P = x;aluile (i>5) iSom = som + * P;

(++) P++ ; 2 puint ("In Som = Y.d", Jun); getches;

3

P

Output

Sm= 55

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, VIDYA NAGAR, KARUKUTTY-683582

Department of Computer Science & Engineering

Semester 2 CS100 COMPUTER PROGRAMMING ClassTest2

 A file named "data "contains aseries of integer numbers. Code a program to read these numbers and Write all even numbers to a file named "even" and all odd numbers to a file named "odd".

C

CLASS TEST-2

Mariya Raphel D) A file named DATA contains a series of integer numbers. Code a program to read these numbers and then write all 'odd' numbers to a file to be called ODD and all even numbers to a file EVEN.

An: # Include < Stdio. h> Void main ()

FILE * & 1 , * f 2 , * f 3 ; int number, i; Pri fi = fopen ("DATA", "w"); for(i=1) i <= 30; i++)

& canf (" "/od , & number); if (number = = -1) break; putus (number, fi);

fclose (fi);

3

f1 = fopen ("DATA", "n"); f2 = fopen ("000", "W");

\$3 = fopen ("EVEN", "W"); while ((number = getw (fi))! = EOF)

if (number %2 = = 0) putu(number, \$3); else puter (number, f 2),

fclose (fi); fclose (f2); filose (f3), man a company and barrow with 62 = fopen ("000", "91"); 62 - long ("10100", "91"); £3 = fopen ("EVEN", """); printf (" ODD file ("); while ((number = getw (B2))! = EOF) 2 printf (" % dit", number); perint ("EVEN file (n"); While ((number = getw (f3))! EDF) printf ("%dit", number); Heind filose (f2); fclose (f3): 3 (Cier - ladas) water -Output ("w", " MIVI") mapping = 8% 1234567890 while ((minter - getwift)) = Eq1 ODD file 7 9 (as a site redenuer) fi 3 5 Co fr mamen) where EVEN file 2 4 6 8 0 (stransmun) why

CLASS TEST-2

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shallet Mary T Eldho 52, CS2

1. A file named DATA Contains a series of Integer numbers cade a program to read these numbers and then write all oad numbers to a file to be called ODD and all even numbers to a fele EVEN. * Orclude 2 states. R> Vole matrice S FILE * 81, + 82, + 83; But number, e; ₹= = topen ("DATA", "w"); for (P=1; P= 30; 1++) Scanf (" %d", frunsber); (number == -1) break; puter (number, 81); 3 fclase (81); \$1 = topen ("DATA", ""); 82 = popers ("ODD", "w"); \$3 = fopen ("EVEN", "w"); WRELE ((number = getw (81))! = EOF) 2 Ef (number % 2 = 0) puter (number, 83); else puter (number, 82); 3

Eclose (81); fclose (82); fclose (83); €2 = topen ("000", """); 83 = 80000 ("EVEN", "s"); pronte ("ODD fele \n"). Where ((number = getw (BR))! = EOF) Epronto (" % d 1t", number); paranty ("Even gele (n"); (uxple ((number = getu (f3))! EOF) pronto ("%d Ht", number). fclose (fa); fclose (f3); 3 autput 1234567890 odd fole 5(7)9 ((1)) warp (((()))) all () 3 1 EVEN fole Con has of endowing of 6 8 0 il stand and have 2 4 (Calificadours) with 102 10 1 S.

Snelver. S. Nombiar.

CLASS TEST - 2

1. A cite nomed pata contains a deries of integer numbers. Code a program to read these ninbus and then write all Odd' numbers to a file to be called odd and all even

numbers to a Gile even.

A: # include < stdio. hr # include & conio. hs

6

Gile \$\$1, \$\$2, \$\$3;

int mim ; fi = fopen ("data", "w); Con (1=0; ic 30; i++) Scomf ("Y.d", & num); if (nim = = -1) break; 2 puter (nem, or);

fclose (f1);

f1 = 1 open ("data", ""); f2 = 60pen ("odd", "w"); 63 = fopen (" even", " x"); alule ((nem = geta (62))! = 607) if (nem 1.2==0) puta (number, 13); cloc

putar (nember, 12),



f close (fi); folose (12); felose (13); 62 - fopen ("edd", "x"); 13 . gopen ("even", "w") primt f ("odd Bile (m"); while ((monber - getw (82)) ! + 40) ŝ primt 1 (Y.d ; non); 3 print + ("even gile (m"); ulite (Counter: geta (13))! 404) Ξ. print ((1. dil", nm); 3 folose (f2); f close (13);

Output

3

1 2 3 4 5 67890

odd bile

13519

ann vile

24680

Hubanned Saher

CLASS TEST : 2

A fele named OATA contains a series of Integes 1. number code a program to read these numbers and then will all odd numbers to a file to be called oop and all even numbers to a file EVEN.

Ang-

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0

)

include estations # include 20000. hs FILE xf1, 4f2, xf3; fi= fopen ("OATA", "W") for (i=0 ; 1>25 ; i++) Scanf ("" lo d", & number)puter (mimber , b1); f close (fi); fa = fopen ("000", """); cutile (Imumber = getw (fz))! = EOF) 16 (number 0/0 == 0) put a (member, +4); else put a (numbers , + 2) falose (fa); F3 = fopen ("EVEN", """); fa = fopen ("000", """); while (minden = get w (+3) ! EOD

paint + ("DIod It", minutes) filos (ta); f close (fD)

Output

1 2 3 4 5 6 7 8 9 0 000 file 1 3 5 7 9 Even file

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Even file 2 4 6 8 7

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, VIDYA NAGAR, KARUKUTTY-683582 Department of Computer Science & Engineering

Semester 2 CS100 COMPUTER PROGRAMMING Rubrics

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1. What is the purpose of "rb" in fopen() function used below in the code? FILE *fp; fp = fopen("source.txt"; "rb"); A. open "source.txt" in binary mode for reading B. open "source.txt" in binary mode for reading and writing C. Create a new file "source.txt" for reading and writing D. None of above 2. What does fp point to in the program ? int main() FILE *fp; fp=fopen("trial", "r"); return 0; A. The first character in the file B. A structure which contains a char pointer which points to the first character of a file. C. The name of the file. D. The last character in the file. 3. Which of the following operations can be performed on the file "NOTES.TXT" using the below code? FILE *fp; fp = fopen("NOTES.TXT", "r+"); A. Reading Writing B. C. Appending D. Read and Write 4. To print out a and b given below, which of the following printf() statement will you use?
float a=3.14; double b=3.14;

A. printf("%f %lf", a, b);

B. printf("%Lf %f", a, b);

C. printf("%Lf %Lf", a, b);

D. printf("%f %Lf", a, b);

5. Which files will get closed through the fclose() in the following program?

int main()
{
 FILE *fs, *ft, *fp;
 fp = fopen("A.C", "r");
 fs = fopen("B.C", "r");
 ft = fopen("C.C", "r");
 fclose(fp, fs, ft);
 return 0;

A. "A.C" "B.C" "C.C"

B. "B.C" "C.C"

C. "A.C"

3

D. Error in fclose()

6.On executing the below program what will be the contents of 'target.txt' file if the source file contains a line "To err is human"?

int main() { inti, fss; char ch, source[20] = "source.txt", target[20]="target.txt", t; FILE *fs, *ft; fs = fopen(source, "r"); ft = fopen(target, "w"); while(1) Ł ch=getc(fs); if(ch=EOF) break; else ŧ fseek(fs, 4L, SEEK_CUR); fputc(ch, ft); 3

} return 0;

.....

ł

A. rn

B. Trh

C. err

D. None of above

7.Out of fgets() and gets() which function is safe to use?

A. gets()

B. fgets()

8. Consider the following program and what will be content of t?

#include<stdio.h>

int main()

```
{
    FILE *fp;
    int t;
    fp = fopen("DUMMY.C", "w");
        t = fileno(fp);
    printf("%d\n", t);
        return 0;
    }
```

A. size of "DUMMY.C" file

B. The handle associated with "DUMMY.C" file

C. Garbage value

D. Error in fileno()

9.While calling the fprintf() function in the format string conversion specifier %s can be used to write a character string in capital letters.

A. True

B. False

10.A text stream is an ordered sequence of characters composed into lines, each line consisting of zero or more characters plus a terminating new-line character.

A. True

1 return 0;

A. r n

В. Trh

C. err

D. None of above

7.Out of fgets() and gets() which function is safe to use?

A. gets()

B. fgets()

8. Consider the following program and what will be content of t?

#include<stdio.h>

int main()

```
{
  FILE *fp;
  int t;
fp = fopen("DUMMY.C", "w");
  t = fileno(fp);
printf("%d\n", t);
  return 0;
```

A. size of "DUMMY.C" file

The handle associated with "DUMMY.C" file B.

C. Garbage value

D. Error in fileno()

9. While calling the fprintf() function in the format string conversion specifier %s can be used to write a character string in capital letters.

A. True

10.A text stream is an ordered sequence of characters composed into lines, each line consisting of zero or more characters plus a terminating new-line character.

A. True

| Answer | | | | | |
|--------|--|--|--|--|--|
| 1. A | | | | | |
| 2. B | | | | | |
| 3.D | | | | | |
| 4. A | | | | | |
| 5.D | | | | | |
| 6. B | | | | | |
| 7. B | | | | | |
| 8. B | | | | | |
| 9. B | | | | | |
| 10 A | | | | | |

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SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, VIDYA NAGAR, KARUKUTTY-683582

Department of Computer Science & Engineering

Semester 2 CS100 COMPUTER PROGRAMMING Rubrics

1. What is the purpose of "rb" in fopen() function used below in the code?

FILE *fp;

fp = fopen("source.txt", "rb");

A open "source.txt" in binary mode for reading

B. open "source.txt" in binary mode for reading and writing

C. Create a new file "source.txt" for reading and writing

D. None of above

2. What does fp point to in the program ?

int main()
{
 FILE *fp;
 fp=fopen("trial", "r");
 return 0;
}

A. The first character in the file

B. A structure which contains a char pointer which points to the first character of a file.

.....

.....

C. The name of the file.

D. The last character in the file.

3. Which of the following operations can be performed on the file "NOTES.TXT" using the below code?

FILE *fp;

fp = fopen("NOTES.TXT", "r+");

A. Reading

B. Writing

C. Appending

D. Read and Write

4. To print out a and b given below, which of the following printf() statement will you use?

float a=3.14; double b=3.14;

A. printf("%f %lf", a, b);

B. printf("%Lf %f", a, b);

C. printf("%Lf%Lf", a, b);

D. printf("%f %Lf", a, b);

5. Which files will get closed through the fclose() in the following program?

int main()

```
ł
  FILE *fs, *ft, *fp;
fp = fopen("A.C", "r");
  fs = fopen("B.C", "r");
ft = fopen("C.C", "r");
fclose(fp, fs, ft);
   return 0;
```

```
ł
```

A. "A.C" "B.C" "C.C"

B. "B.C" "C.C"

C. "A.C"

```
D. Error in fclose()
```

6.On executing the below program what will be the contents of 'target.txt' file if the source file contains a line "To err is human"?

创人

```
int main()
ŧ
inti, fss;
  char ch, source[20] = "source.txt", target[20]="target.txt", t;
  FILE *fs, *ft;
  fs = fopen(source, "r");
ft = fopen(target, "w");
while(1)
   1
 ch=getc(fs);
     if(ch=EOF)
        break;
      else
 fseek(fs, 4L, SEEK_CUR);
```

fputc(ch, ft); 1 ١ return 0;

A. r n

ł

Trh B.

C. err

D. None of above

7.Out of fgets() and gets() which function is safe to use?

A. gets()

fgets() B.

8.Consider the following program and what will be content of t?

#include<stdio.h>

int main()

FILE *fp; int t; fp = fopen("DUMMY.C", "w"); t = fileno(fp);printf("%d\n", t); return 0;

}

size of "DUMMY.C" file A.

The handle associated with "DUMMY.C" file B.

Garbage value C.

D. Error in fileno()

9. While calling the fprintf() function in the format string conversion specifier %s can be used to write a character string in capital letters.

True A.

10.A text stream is an ordered sequence of characters composed into lines, each line consisting of zero or more characters plus a terminating new-line character.

True A

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, VIDY

KARUKUTTY-683582

Department of Computer Science & Engineering

Semester 2 CS100 COMPUTER PROGRAMMING Rubrics

1. What is the purpose of "rb" in fopen() function used below in the code?

FILE *fp:

fp = fopen("source.txt", "rb");

open "source.txt" in binary mode for reading A/

B. open "source.txt" in binary mode for reading and writing

C. Create a new file "source.txt" for reading and writing

D. None of above

2. What does fp point to in the program ?

int main() {

FILE *fp; fp=fopen("trial", "r"); return 0; }

A. The first character in the file

A structure which contains a char pointer which points to the first character of a file. B.

The name of the file. C.

D. The last character in the file.

3. Which of the following operations can be performed on the file "NOTES.TXT" using the FILE *fp;

fp = fopen("NOTES.TXT", "r+");

A. Reading

Writing B.

C. Appending

D. Read and Write

4. To print out a and b given below, which of the following printf() statement will you use?

float a=3.14; double b=3.14;

A printf("%f %lf", a, b);

B. printf("%Lf %f", a, b);

C. printf("%Lf %Lf", a, b);

D. printf("%f %Lf", a, b);

5. Which files will get closed through the fclose() in the following program?

int main()

{
 FILE *fs, *ft, *fp;
 fp = fopen("A.C", "r");
 fs = fopen("B.C", "r");
 ft = fopen("C.C", "r");
 fclose(fp, fs, ft);
 return 0;
}

}

A. "A.C" "B.C" "C.C"

B. "B.C" "C.C"

"A.C" С,

D. Error in fclose()

6.On executing the below program what will be the contents of 'target.txt' file if the source file contains a line "To err is human"?

```
int main()
{
    inti, fss;
        char ch, source[20] = "source.txt", target[20]="target.txt", t;
    FILE *fs, *ft;
    fs = fopen(source, "r");
    ft = fopen(target, "w");
    while(1)
        {
        ch=getc(fs);
            if(ch==EOF)
                break;
        else
            {
        fseek(fs, 4L, SEEK_CUR);
    }
}
```

fputc(ch, ft); } ł return 0; ł гn B. Trh C. err D. None of above 7.Out of fgets() and gets() which function is safe to use? A. gets() B fgets() 8. Consider the following program and what will be content of t? #include<stdio.h> int main() { FILE *fp; int t; fp = fopen("DUMMY.C", "w"); t = fileno(fp); printf("%d\n", t); return 0; } A. size of "DUMMY.C" file The handle associated with "DUMMY.C" file B C. Garbage value D. Error in fileno()

9. While calling the fprintf() function in the format string conversion specifier %s can be used to write a character string in capital letters.

A. True

IND

Im

CI

1.

2.

3

ch

B./False

10.A text stream is an ordered sequence of characters composed into lines, each line consisting of zero or more characters plus a terminating new-line character.

True A

INDUSTRIAL RELEVANCE OF C PROGRAMMING LANGUAGE

Importance of 'C' language

C language is a famous programming language due to its qualities. Some qualities are:

- It is robust language whose rich setup of built in functions and operator can be used to write any complex program.
- Program written in C are efficient due to several variety of data types and powerful operators.
- The C compiler combines the capabilities of an assembly language with the feature of high level language. Therefore it is well suited for writing both system software and business package.
- There are only 32 keywords; several standard functions are available which can be used for developing program.
- C is portable language; this means that C programs written for one computer system can be run on another system, with little or no modification.
- C language is well suited for structured programming, this requires user to think of a problems in terms of function or modules or block. A collection of these modules make a program debugging and testing easier.
- C language has its ability to extend itself. A c program is basically a collection of 7. functions that are supported by the C library. We can continuously add our own functions to large number of functions. availability of the library with the the In India and abroad mostly people use C programming language because it is easy to learn and understand.

The reasons to use C for the following:

2.

1. C is one of the foundations for modern information technology (IT) and computer science (CS).

Many working principles of IT and CS, such as programming languages, computer architectures, operating systems, network communication, database, graphical user interface (GUI), graphics, image processing, parallel processing, multi-threads, real-time systems, device drivers, data acquisition, algorithms, numerical analysis, and computer game, are based on or reflected in the functionalities and features of C. The experience in C will help students understand the working principles of these important concepts in IT and CS... Therefore, C is required for the CS major in almost all universities.

C is the most commonly used programming language in industry.

Academic institutions have a mission to teach technologies that are widely used in the real world so that students have the skills and knowledge that employers need. More than 90 percent of the programs running on our desktops, from operating systems and e-mail clients to Web browsers and word processors, are written in C or its relative, C++ which has extensions to C. Most games and underlying robot control software are written in C or C++. With the

knowledge of C. students will not only be able to play games and robots, but also understand their underlying working principles and potentially develop their own games and robots.

 C is the language of choice for programming embedded and mechatronic systems with hardware interfaces.

 C is one of the most commonly used programming languages in colleges and universities.

Computer programming is an essential skill for advanced studies in Science, Technology, Engineering, and Mathematics (STEM) fields. Like in industry, C is also one of the most commonly used programming languages in colleges and universities for teaching and research.

5. C is the base for almost all popular programming languages.

C is the language of choice for system programming. Because of the performance and portability of C, almost all popular cross-platform programming languages and scripting languages, such as C++, Java, Python, Objective-C. Perl, Ruby, PHP, Lua, and Bash, are implemented in C and borrowed syntaxes and functions heavily from C. They share the similar operators, expressions, repetition statements, control structures, arrays, input and output, and functions.

6. C excels as a model of programming languages.

C does an excellent job of illustrating the underlying working principles of computers, scientific computing, and disciplined software development. Students gain valuable knowledge of such fundamental programming concepts as data types, internal data representations, operators, expressions, loops for repetitions, control structures, arrays, input and output, functions, debugging, etc. Studying C provides a solid foundation for students who want to learn advanced programming skills such as object-oriented programming, event-driven programming, multi-thread programming, real-time programming, embedded programming, network programming, parallel programming, other programming languages, and new and emerging computing paradigms such as grid-computing and cloud computing.

7. Once students have learned C, they can pick up any other languages by themselves. Certain languages and tools are typically used to solve domain specific problems. Therefore, the ability to understand and learn new languages is important. All other modern languages borrowed heavily from C. Once students learned C, it is easy for them to learn by themselves any other computer languages without much difficulty.

8. C is a standardized programming language with international standards. A standardized programming language is stable and its evolution is overseen by a technical standard committee made up of business, academic, and organizational representatives with a stake in the language.

- 9. Computer programming is becoming a necessary skill for many professions. Writing computer programs is essential to solving complex science and engineering problems. Many principles and concepts in STEM disciplines can be illustrated and reinforced through writing programs. C and C++ are more widely used in STEM fields than any other programming languages such as Java, Fortran, or Matlab.
- 10. Computer programming can develop student's critical thinking capabilities. Developing a program to solve a practical problem involves many creative works, including design, logic reasoning, math, etc. It can help students find practical applications of many math concepts such as variables in Algebra 1 and trigonometry. Debugging a program can

also aideo

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also help student improve their reasoning and logical thinking capabilities. The computeraided problem solving capabilities can be trained using C.

SCMS SCHOOL OF Date 09-04-4018 ENGINEERING & TECHNOLOGY Subject fomput be Programming PART A # include (udio . h> 1. cionio h> 11 +11 # invende upid main () unit a, b, c , langut ; private (" entry the three numbers"); Stant (" "lot "lod ", fo, to, to)) Langest - (arb pp arc)? a: ((brc)? b:c); punite (" Longest is Tod", conquet); Ares Loch 176 1.120 J. 1.100 getch (); who arous & begins 40.03 3 SIT & pullions risk variagious Howchaut gent which the 1 34. 9 300 (staut) 9 in the denies (ON A) risked out the input A amount a, b, c 4 2743349 01 / M = M Trees 4 3.2 1) sides & False articly in 2764 laugut = a arc L trains else if False 670 , Terre laugest = C ue and sive millions laugest = b pade Samo laugest Display 1140 460 64 120021 al symbols stop (paces section for the chinal on

well ---- There are se knywerrels in C.

~

2. output of the following code : 00111 unt i = -1, j = -1, k = 0, k = 0, k = 1, m_i $m = i + + 4P_i j + + P_i - 1$; m_i $m_i = m_i - 1$; m_i YO Print ("god Tod Tod Tod Tod Tod , i, j, K, L, m); (1), the In (2), the values of i, j and K are unie it is a and then its value is enciremented "m = -1 fp -1 fp 0 || 1 is the expression. The overall the overall expression yiller the value 1. postfix . : output buomes 0,0,1 00111 Entry contributed 100p exit contributed 100p · Rondition is walkated . eonelition is walka 3. at the end. of the at the sugarning of the toop is before eneming wip gits byour the executed i · loop will only get i gabse wallete. excurred & when the How Hay condition gets satisfied. eg: dowhile 600p · g: while woop unt n=500; unt n = 50 ; while (n Ko) do 2 punt + (" god", n print (" ded", n); n = n/10 ; - +++ + where i while (n >0); while in >0) { puint (" lod ", n); il halls n - - ; 4 72.11.6 S - Hupplet 4. There are six tokens mic, shey are : · Keywords Thispirel Largert · identifiers · constants spuial symbols white spaces . variante logical operators. keywonds - Thun are 32 keywonds in c. There are would defined in the citie asy.

Identifieus - toury would in c' is eithre an rouncifier or a kyword. constants - Their value doesnot change. show are it types - Integer constant - chavactur constant special symbols - special symbols include #, #, \$, \$, 1, !, e, ", ', ', ett.' white spaces - In - remeline Ve - cauniage vurun It - houizoneal taupare etc. opuratours intende auistmetie and logical opuratour. anithmetic operators -+ + , - , /, # . logual operatorie -> >, <, >=, <=, !=, == etc. PART B 1. # initiale < state . b> # inituale cionic. h> word main (). 11+17 unit n j c = o j i)p \$ 10 ; dusue (); prints (" entre the limit "); scant (" ged", fn); fon (i= a; i < n; i++) { P=0; 10x (j=a; j<i ; j++) ş if (i % j == 0) P = P+1; 201205 } bucak; Richland C 1 +++ a 3 a , a track I saw (1983 4 (pt=0) ¿ buak; 3 Roberts - Establish else M control Charles W 2 c++; in (3-114) for the total total for the formation of the total 4 Tod prime numbers in the the print 1" shear are limit lod", c,n); private it into the cherry



S.A. AE Page No. .. SCMS SCHOOL OF ENGINEERING & TECHNOLOGY scant ("lod", px); itch if (x == 1) punit f (" antwe the number"); ٤ mint++ stan+ (" "lo d", &n); for li-1; isn ; i++) { fait - fait + + i; print + 1" tartonial of god is god ", 1, fact); 2 else { print + 1 " " of " , a , b); 01)2 to print + (" anter the cernit "); 66 scant ("lod", \$m); punt (a, b for li= 0; inm; i++) { c = a+b; a=b; b = C ; 9. punit (ucfod forther print & (" o lo d X 1 (); 3 5 getch (); AD LANDER Hemehaut publica 3(0) # initude & statio. b> # insule cionio. by (pt) coid main w ¿ unt a , n , suy ; rum =0; FURINISTIS FE ELWAR (I)clessue (); puint fl" Enter the number ") seant (" fod ", & m); a=n; while (n70). and partice to the many offer offer the 1000 " + " hum = num + 10 + sev ;



Page No. SCMS SCHOOL OF ENGINEERING & TECHNOLOGY statement is used to this the particular is the and you continue with the material (in the Continue execution same teep) . tiro; ien; ies) egi fon 1 -1 (- - - -) 1 continue ; else. 1 prunete" +12"); 3 3 on marking the continue statement, that particular itwation is. skepped continues by the compile and it with the next iteration . How chant . Haut cut mput x R=D b - 1 1 t=++ fait + 1 lout the input & if fall X==1 terre Display a, b aut the enput n but the input m u= 1 1=0 lit+ False < n w. Falle irm Tue fact = fact * i 2 rue it+ c=a+b Display fact 1 a= 5 bec Displayl \$40

MANOJA E Branch & Roll No. St. R. CS. R. 2 SCMS SCHOOL OF Date: 9-92-18 ENGINEERING & TECHNOLOGY Subject COMPUTER PROGRAMMUNG PART-B 1, # enclude < stdio. h> # enclude < conio. h> void main () int l, h, count, i, j, c, count=0; chrscr(); print- (" entre lower limit "); scanf (" "bd", &1); porint f (" entre upper limit"); scanf ("0/0 d", f h); in lost a land for (i=l; i<= h; i++) Alasta, "hat as Brown A" Hing C = 0; for (j=2;j<='1;j++) A citato - charlons if (i'kj == 0) < A number of Marchen P & main him & (=1) break ; ("hod" bola")) (ct , "hold") 'r Purc >1 hours if (c == 0) : (5) (" hole" count = count + 1 ; printf ("count is "lod", count);

Paul - A Juch (); 4 factorial CHIDAT & DURASHIDKS n = int curpit (30 fad = 1 3 for i in range # include < stdio.h> 1. 21. 2. fact = fact + 14 1.8 2.313 x. # unclude < comio.h> (tool) thing ١ void main () ٩ 1 int m, tad = 1, i; print f (" entre the number")) scanf (" "/od", fm); 2.0 for (i = 1; i < = n = ; i + t) b - 1 point e boing for fad = fad xi ; int ("Actorial is "/od", fact); 'n # include < stdio h > # include < conio h > void main () Monu int m, a, b, i, c; print (" entre the limit"); scanf (" "lod", & m); a=0; b=1; printf (""/od", a); print f (" % d", b); b_r (i=0; $\frac{1}{1}$ (i=n, i++) c = a + b;printf ("olod", (c); a=b; b=c; Butch(); (Ingo !! A.

153 30+5 arr n = int(input(no)) sum. 0 < ushile (n>0) # include < stdio h> Y= 1 = 1010 sum- fundio # include < conis hy void main () n=n)10 if (sum == a); als fre Pal do int m, a, r, sum = 0 ; not pal print ? ("enter the number"); man and scanf (" "/ d', fm); a-n; while (n>0) r= n%10 j sum = (sum * 10) + 7; n= n/10 ; if (sur Brint - (no. is paluidione"); In Latter else rintf("no. is not palindione"); gdch(); (lanas)? 3reak statement is used to exit the loop and statements out of the loop. Break is used is to exit the loop and to execute the rest. out of the loop. it nya lor deep starts , 24 have between a champer Calman. "switch (cond) to buck to lar shop of case value 1: translip Statingeneo eap 1 break smallcondulation 3. case value 2 CONTRACK. cap 2 break the temperation of a card 1333123 C Our Chilimpak

« Itdio Here worden will check the condition and peads the case executed values, will check the condition and peads gets the relater 90 () values, if the case value is and eacente the states × , 4 and thus it busks the loop and execute statements 14 (), indt (Continue is used to skip the well of again. Continue & a loop and to skip the wol of again. Continue & ment can't with the loop again of break ant (1 ment can't exit the loop as is the int Ach if (cond) (1) ++) 2 Statement - 1 statement - 2 +) (al + iniz) - rat Gontinue stylement - 3 statement - 4 -Here the competer will check the conditions and if is the statement - 1 gets executed, then statement of at is the for (1=0; i<n; 1++) mathender of me on ") think H (cond) 2 Statement - 1 continue statement-2 " the And have a translation the statement 3 2 3 3 1 Alt stand of how good with the -flew when the doop starts, dompilor will check the a and if it is twice statement - 1 gets executed and il will again go back to the loop by skipping th rest of the statements is, statement - 2 and state (untell the conditions fails. Hence exiting from the East Value 2 is not possible for continue Thile 'goto' statement can exit from the entry to ngo to some other statements

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY - Entry controlled loop will check the conditions at first and gets executed. If the condition gives in the statement is true, budy of eoop gits then the body of executed, otherwise execution will not take place. eg: for loop, while loop. - +- - (Conf. Control) - Maria while (cond) body of loop while (n>0) r= nº/010; sum = (sum + 10) + "; n=n/10; -there, faist of all the condition (nro) is evaluate the conditions is the, then the body of the gets executed, otherwise body of loop will m a't be changed while be executed. /Exit control loop well check the condition only kacenting the body of the loop once. After of loop one-time, this the condition in and if it is time, the body of loop in do executed agains eg: do-while. do. do printf (" entre a, b, c"); scanf (" "lod "lod "lod", &a, Ab, 4c);

ENGOID f (a>b 4 4 a>c) T & DRISTANDER TO JOOHDE EM else of (b>c) print + (" b as greater "); print ("pren y you want to continue else seant (" % a" x " scant (" "6 c" y, f n); It enclude] while (n = = 'y') adentifier, opualor, teles, special chareture, constants, d'alat - I dentifier so the 4, Jokens au the mallest components is C ; adoptiti - Identifier is the name assigned to the data value. - quata is used to do opuations such as addition, ction, assessment ction, assignment etc. Special characters such as 7 ** - Constants are the value amgried to the valuable. If can't to can't be changed while variable's value can be changed accordingly. Doda lype afers to the type of the data use are 1250 providing such as int, fload, double ite. at with, well is Oas Letusino illitar at 1950 (" only a proof) () book of

CMS SCHOOL OF ENGINEERING & TECHNOLOGY int i=-1, j=-1, k-0, l= 2, m; m=i++ 44j++ 44 +++ ||--1; printf (""/od % d % d % d % d % d % , 1, j, k, 0, m); Ouclput will be L L L 0 0 will give the output (0 ie, gues 0 j++ will give 0, -1++1 which is 0 k++ will give 1, 0++1 which is 1 Il will give 1, -- 2 which is 1. By using logical operators from lift to right. O gues 0, 044 1 will gues 0 and 0 11 1 c give 1. F. Paris # include <sidio.h> # include < conio. h> ton in the void main () were m int a, b, c; print (" enter a, b, c"); live shifts scanf (" 0/0 d 0/0 d 1/0 d 4, 4 a, 4 b, 4 c) j (a>b 4.4a>c)? print A("a is greatu"): (b>c?prin

getch();

Shwawan Mang Branch & Roll No. CS 2 - 33 SCHOOL OF Date: 4-2-13 **ENGINEERING & TECHNOLOGY** computer Progra Past - A + Hindude CLONION Hinclude Kudion void main() int x, y, z, larger desse (), Prat ("Enter Buck: "). scant (" %d % d "/2d", & x , & y , & 2) lagest and the taxes printf (langer no. is : 9-2', langest); + (a>6)22 (a>0 getch (); die + (+>1) 10-dat= p; 3. Entry collecolled loop largest = c; Joalf ini ty: tou-loop, while loop Here, the body inside the curly bracket, or the body is executed only if the condition given at the start is to the entry to the body of the loop is controlled by a conduit before it's loop; hence the hame entry controlled be I tan the thile (a>b) walls law eus 1.917-2303 Body of the bop seid charcel with 31 character was wanticent controlled Loop bain do-while loop re, the body of the loop gets executed once to dition itself. is, even if the condition is to

get executed ance. This means that the exit of the bop is controlled by a condition statement, chereas the epitry is

Eg do 2 Body of do-while loop

] while (asb),

4. Tokens

Tokens are the fundamental building blocks of a C prog They are the smallest indiviseible parts comprising the pro The tokens in C are:

) Keywoorde

They are irreplaceble would that convey special meaning the compiler. There are no other would be replace these to in C.

tg: int, float, main, char etc.

] Identifier:

Rey are used by the compiler to identify various date Eq: int <u>streme</u>, char <u>name</u> etc.

There are some unles regarding the naming of identi . It should not begin with a number

· White spaces are not allowed · Only special charactel allowed is "_". · Only the first 31 characters are significant

Constants These are used to identify datatypes that never ein value in the program. This means that they h red value.

i) Variables There are used to identify datalype that will dange the values or can change their values. Eg: int x: 5 of springs a droubd dose of similar baralype referenced de x [10] Eg 1 #indude & comony Hindude Litdions usid main () int n, mart, i, i, flag=0; came: 2; 2 print ("Enter the limit !); scant (" ord", 2 and. eter (i= o; i< n; i++) tag= 0;2; i Kn; Ł if (4 i% j== 0) r flag= 1; break (a du de la la du de la (tlag == 0) print (" Cuter the member ("Pri intf numbers in the limit; Yod" , cou ber (); ELTEN + DO

. Amay Main mercha) Filomarci "); Hames In D.F. Ranf C' Wed", & droved A C' Ender Mile count corted - & m) to Chat Lengins tack fact . fact . i, 1 i juint ("Factorial of "bd is "bd", n, tou pring c" enter the himselt :"); sourt ("ord", &n); for (i=o; i <n; i+1) tor (j=1 ; j <= ; ; j + ; print (" % d") L print (" 1 "); 3 gene () 3) #include & conio. h) Hindude & mathing #indude (stdio.h) void main () 1 descript int n, i, V , sum= 0 cluser (); print (" Enter the number : ") a: on ("lod", &n); while (a>0) r= 0,4010; sum = seen + por a= a/10;

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY il (um == n) printy (" Pallindrome "); printf (" Not Pallindrome"); getch(); S Bucak 6) It is used by the user to make the complexinderstand that it the command is encountered, the place of control is taken outside the first loop above it. Eq: switch (ch) L case 2': print (" H ;") break : (are'd': print (" hallo") break ; It the value of ch is a the output will be "Hi". Just we break statement is encountered, the flow of chere come , If the suitch body & reached, the nex statement witho ng the case's' of the bop. , the cutput is an Continue Continue is generally used to force the compiler to ste yext iteration of the loop above it without exec commande under it. Eq: tor (inti=o; icn; i++) Hene, when the incl it condition is salt à L it (1-3) putine statement outine; dietly, the next iter i= A is executed di unde

Sarath Amay Nair Branch & Roll No. CSII, 23 SCMS SCHOOL OF Date: 9/2/18 ENGINEERING & TECHNOLOGY Subject Computer Bragranning PART-A with putries) # 11 to find largest of 3 tru) real # include < stdio . h> # include < conto .h> void main () closor(); b, c, l; point ("enter a, b, c"); LO CHERC scarf ("%d%d%d", 4a, &l, 4c); y(a>b 44a>c) enangle t=/a; 3 Inviser else (c>bibnes DUC pripalitab l=b; printf (" ", d" *, largest ", l); getch ();

Saralli Amay Na 2) Output: SCHOOL OF SECURICE STECK DECO 3) Entry control loop : first the condition variale is evaluated and if the condition is satisfied, then only the body of loop gets executed. For eq: (int i= 0; i< 4; i++) e terpical built of 11 4 2 pounts ("%, d", i); gives the output: 0123 Exit control loop: In this case, the body of the loop is executed once before evaluation of condition. So the body is executed one extra time . For enample, pount([", d", i) ; } while (i<4); gives adjut: The condition is 4 is checked after displaying i once, unlike in for loop.

fl, targreat is best of therein

PART-Ball + njelaretel two odentin # 1) 1/ No. of poine no. in limit the unclude # include < stdio . h > () main bios # include < conio. h> void main () X. a. B. My do thi int l, u, i, c a / automore of a lainer NARD ") [Inver print (" lower & upper limits : "); scanf ("%d %d", 41, (u); 1001 (== i=l; i <= u; i++) (10) deture for (j=2; j<i; j++) point ("enter of 4(1%;==0) break; else 🍏 C++; ET hanty ("There are ?. I prime numbers", c); getch (); Incole

mal of a fibonacci in limits # include < stdio. 4> #include < conio. h> (abtes but (1 obrail abilition int ch, n, f, x, a, b, c = 0;choor (); pointy (" 1. factorial of a number (n"); pount ("2. fibonacci till limit"); case 1: (++)(1>)(S printf("enter n"); scanf ("",d", (n). while (n > 0) 2010 1=1 * n; 3 n-jounty (" Jactorial is "d", f);
Sarath Amay Nair CSII, 28 1/ palindrome NEERING & TECHNOLOGY ebulyes mien bis case 2: point (" enter the limit : "); Scanf ("%d", 4n); rul a=0; b=1; while (ccn printf ("%d\n%d\n", a, b); while (c<n) 01%a)+ ib=a+b; Ba=b; b= fib; pointf("%d/n", fib); C++; do ton) Strin P break ; 5 addn (getch (); 33

"palindrome check # include < stdio.h> # include < conio.h> air in parth Ataren 2 void main () int a a, s=0, n limit all allo they point ("enter timber Stand (" scan/("".d",(n); q=n; while (n > 0) $\xi = (sx^{(0)} + (n\%^{(0)});$ n=n/10; dino - lil com id . D $\dot{\psi}$ (s = = QA) point (" nat a palindrome "); else gdch();

CSIE, 28 minue awi Page No. SCMS SCHOOL OF ENGINEERIN a break statement, while continue Break and continue statements viere reak : This statement is used to terminate of loop or switch statement and transfer blov intral outside the loop or switch. Jon encountering break stament, execution of loop or switch's body will stop at that point and control goes to the next statement in main () function. Example: void main () int i = while (i<10) the / sutrei gulan point (" " " b) jud pub tor court ereat become 5. $i_{i} = 5$ break; 3 1234 gives output when i became 5, break statement caused Termination of Loop and values 5,6,7,8,9 were not displayed.

ii) Continue: This statement may be used in a loop for skipping execution of body of loop for a particular value of the condition variable. Unlike in the break statement, using continue is a loop will cause it to leave out only the values specified, while the executing the rest. Example, void main () brontrandets obtinus to pool o populations as god and abratua lastra intraition transfer deard privations not while (Like 10) to be pool about the pool of pointif (", d", i); all deal better but fourtien. Example (i == 5) continue; () nion block gives the sutput: 12346789 Here i was not displayed only when its value became 5. (z== i) [i == 5) ; sheard # 2 5 1 trytus comp when i became 5, break statement caused ter areas of loop and values \$6,7,3,9 were not · befolged

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY Compiter science VISHNUT.P OCS-I Roll-ST # indude Lstdio.h> 1) # include La comio (hz void maines; ind a, ind b, inte (); 5 Point f C" enter the first number "); Scan f C" % d ", da); Poundf ("enles the second monter") ; yazb. scanf (" "/od", db); Prient & C" emiter The shire number ") scarsf (" ' /. d", dc); . if (a > b) . A EC "ais queater ylamb en Comes the Soverlless dele (por) toters are of 6 types point C((a is queater of the 3 mentors 1/d, & a); Jeel tft tis greater of the snumber

SCIVIS SCHOOL a = 4; ash 11 517 else () b = i 3 COMMENT 610V ifci number "/. d", di); Z point f (m) 3 else point fc" the number % d isquester, dc sh 3 (a) 14) totoms are the smallest point Totans are of 6 types Keymound Liters a percelas 5 19 strange chorectors

A Les 4 +) fagures SCMS SCHOOL OF ENGINEERING & TECHNOLOGY ed posit Boursen tonightored was fully anopposed 1 # include Cstdio.h> # include (conioph > Voidmain C) idestition istightion one uses oleghined anonals until Sula differed mainings ' inta, b, c j Close oco E, K, X Point & C"enter. The limit"); Bland (" / dial da Diange type Id tajundets commot bused as identifiar. Aller aller de mucils literale and the constant unline contants operation of 0 the openedroses are the applications wind is elded fex operations expirete afrest care gale Chas contrase which are endaged in the will double anylow

Key woods are the babie building blocks & program. They are predifined wood with both 4) Keymond depinet meanings meterle int Float, char, double ate 4 intentificances wer defined wards with dea identifier defined manings' mulos for noming and I destifier ogi The first chounder should be a letter or Ant spotes use not allows : fundeds connot be used as identifier. It littlers digits, and species describe can be used. literals are the constant walves contents literate The openations are the sound with is alled oportors free operations +,- *,/,% storings ybey we ghe charactor which are endosed is to with double accordes

MANDJAE SOURAV BINESH 2(52 CS I - (37) SCMS SCHOOL OF ENGINEERING & TECHNOLOGY Roll : 37 Page No. ..1 Sem: 2 PART -A り D # include < stdio. b> #indude < Conio. b> Void main () int a, b, c ; conser es Printf (" enter the "rumber") · . schof (" %) of % of d stor ("\$ \$60 " (a ("); RESERVED DU Print F (" a ist g 90 P scanf (" lod lod lod, &a. Eb. & c); Ro if a < b, Printf ("fa 15 greater") Sadel if bose printf ("tea" is greated) elic isquater)i Poloo3 Not i=-1, i=-1, K= & 1= 0, m; get ch ch 20 m=i++ & & j++ & & k++ ||--1) Print f ("My d % d % d % d % d ", i'j, K, l, m); ter prodi auted 2. Out-put-

3) Entry controlled wop 2202 In these, compilation is dore before starting the program. 1/19 culture skulton # Exit Controlled loop the about the is done after summ Compilation programme. 101

(and in the states ") + 1000

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4) int

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Used to represent floating point number.

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Condiction bar bar bar hor bar

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Used to represent Characters

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Chang the new

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Page No.

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SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

PART- B

scanf ("old "bd" & & b)

Point f (88

#include < stdio.br #include < conio.br Void mainer int x, y, z; print (" enter the no:"); stant (" total tod George (total tod)

Gre

include (is stdio. h> #indudy < conio. b> void \ mainer int

MANOJAE Branch & Roll No. 5-2, CS-2, 2 SCMS SCHOOL OF Date 6-03-18 ENGINEERING & TECHNOLOGY ECHNOLOGY Subject COMPUTER PROGRAMMING 1 - Declaration of 1-D array: Syntaz: datalype arrayname [size]; (A(1)+1)] eg: [int a [10] ; 1-D array declaration should have data type of askay (datatype of elements contained is array), followed by arrayname and size of the array is square braces, and it should end with a community ("enter the mo of adjustments -semicolon sant (*bd*, \$c), Initialization of 1-D array: (i) During un compile time : (++1 (r>1 (0=1) of It should have name of the array followed by elements is a curly braces. (++((>>(()>)))+ $-int a[10] = \{1, 2, 3, 4\}$ chas a [10] = " Computer"; char a [10] = f'c', '0', 'M', 'P', 'U', 'T', 'E', 'R' }; scant can be used to get the input during our time multiple egind Commerger will be Buppendus with mos to print-r ("entre the no. of elements"); scanf (" %d", 4n); has redonal +br(i=0; i<n; i++) andred bright (3) Finction with me parameters scant ("%d", 4 a[i]); to the called dias They is no date dentelation falling calling Declaration of 2-D array: Syntase: datatype arrayname [nowsize][columnsize]; eg int a [10][10];

S ALONATA E Row size and column n'ze should be specified while dig a matrix of 2-D array. - Initialization of 2-D array: (i) During compile time: inta [rof[0]= f2, 3, 4, 4) 6 unt a [a][a]= f a, a, 4, 6]; [[or] & ta (ii) During runtime: such bronder contractions print-f(" entre the no.g roars"); scont (1.ºlod", fr) ; cond privil-P("erter the no of adumns"); scant (1% d", & c); have a to be control for (i=0; i<r; i++) may another war anands is should have name of the origing followed by for (j=0; j<c; j++) (20000) sconf ("/id", 4 a[i][j]);); alise a [10] = " (on pulle (in a fight of the lot of the formation of the fight of the b Functions are self contained block of codes which can 2, a particular function. Fundion reduces the length of pergram. The debugging of the program is made by functions. Operations are made easy just by add a function call in the program. Types of functions : return value (1) Function with no parameters and no and These type of functions donot pass any power to the called funct and do not relain any ver to the calleng functions. There is no data langu between calling and called functions for eg: # include < stdio. h > # include < conio. h>

ICL:HUODO

void fact (void) jest multis has destroyed allow reduced? (e) They have a function prove arguments () rism biov forebers and alarm values to the calling fundace fact (); - dollars Darlon # malando < comorto # void bet (void); i (re Jan) han Jai void fad (void) () owner have print m, i, f= 1; # paint (" enter the number "); with what ") they scant (" %d", &n); (ab ("bol") trassi for(i=1; i<n; i++) ((") isola ach hissats of ") thing - () dasp print (" failonal is god", +); (min) to st tous (2) Functions with acquiments and no return value : These type of function passes arguments to the called -function but do not retain any value to the calling function for eq: i (1-) muter # include < stdio. h> # include < conio. h> void fact (int n); that a very or all when (h) void main () a by as by a praining budye & then life of feidelings which i are not for int n; peint of (" entre the number");" " muster ind the scanf (" Vod", fn); (() Landop []] fact (n); under alling inder is the matter (6) Hermoly protion can alin mig a void fact (int m) unt f = 1; " a bar () and () about the bar () balance Ar(i=i)i<n;i++) (no late > that f=-5-*1 printf (" factorial in % d", -);

(3) Functions with arguments and return value: These type of functions passes arguments to The safety all functions and return values to the calling functions for eg: # include < stdio.h > # include < conio.h> voul - Bart (void)) int fact (int n); (bov) bot bo. Void main () cint m; i L=7, 1 ; so take punt-f("entre the number"); it was) thing it scant ("olod", 4n); i (ab , "bolo") ? ass y = fact(n);(**)(*>i(1=i)p3printf (" factorial is vlod', y); gitch (); 1 2 9. (1, they as harden +) + Hing -int fact (unt n) with a granient and has a produce of the contract (a) Olters. the tipe of fractions (++); (=>j; (==i)) tot tone (toron protion but do not which in the return (-f); $\sup_{\alpha\in \mathcal{G}, \alpha \in I} e^{-|\zeta|} \leq \leq |\zeta^{\mathcal{J}}||C^{-||f_1|| \times 1}$ (4) Function with idean value but no acquinents: Inbuild functions such as get char () are the examples these type of functions. They do not pain any argumerts but Lettuns a value eg: gelchar (); (1) (5) Functions with multiple return value: Mochally functions can return only a single value, and if we want to return multiple value, addiess operator (f) and indiviction operator (*) is used. for eg # include < sldis.h > # enclude < conic. h>

Page No.1.. SCMS SCHOOL OF ENGINEERING & TECHNOLOGY int mathop(int a, int b, int *s, int *d); · ri, ani) if void main () tostlome > [1] 5) unta, int b, s,d; Fill 0 = Inalleriv a= 10; b = 20; mathop(a,b,fs, &d); punt-f (" sum is % (" lup") ; (" lot" an latter " print f (" deft is % d", d);) risis getch (); mathop (ant a, int b, int #s, int #d) to the the int () alow how passed on grast print ((n *) *s=b+aj scantfold", 4n); *d = b-a; Br(izo;ich;i+t) ((Comer pour who scant (right, 40[])) (B , " played a [0] 3, # include <stdio.h> for (i=o, i<nji++) i+ (a[i]> laugust) ("our usmes") ; # include < conio. h> (++1, N>1:0= 1) of ali] void main () int n, a[10], i, largest, mallest; (++(1)) print f (" ender the "elements"); ole ") Inou scanf ("% d", 4n); print-f (" entre the elements")) for (i=o; i<n; i++) scant ("god", & a[i]); (++/: 1/(0-1)\$ $(\dot{o} < (f_{i+1}))$ largest = a [0]; , [[] M) gribers) 24 for (1=0; i<n; i++) if (a[i] > lagest) ~ good Pite) 1900 largest ca []]; ([] a) Epole

print f ("largest is god", largest) jo IDOHDE 2MDE (9) Smallest = a [0]; mathop (wit a , with by mit for (i=o; i<n; i+t) if (a [i] < smallest) biz, d m. Smallest = a [i]; i Chabas A (das) O MUSLIM smallest is 'led", smallest); getch (); ((b , ' h do on I) ib ent i, temp 4, # include Ksidio. h> chara (st # include & conio.h> void mais () 1 ent 1, jr, n, temp; char a [5][5]; = 6-4 print-f ("enlu no. og names"); Scanf/ scanf ("0/od", &n); print-f(" exclu names"); isu; toi (isu; ien; i for(i=o; icn;i++) for (jeo, jet, I. It (strimp (a trallari scant (" % s", a []]); Sic[oi] o ing: >0 strapy (afile strupy (a[1]) Tox(1=0; ish; 1++) stigg (alit) toli=0j In the state for i= opicnitt) to asto (1-0; jeil) (stropp(a[i],a[i+i]) > 0)1/2 5% stropy (a [j], a [j]); stropy (a [j], a [j+i]); gach ();

Page No. CHOOL OF ENGINEERING & TECHNOLOGY In this case, addu stropy (a [j+1], temp); with p hadron motion < A sibtes abusins # He enclarate camic has for(1=0; isn; 1++) hev 2350.00 for (j printf("01.s", a[i][j]); there a gotch (), athen (a, b, f EL . (2 . ball of mus " + him 5, Parameter passing methods : 6 in 11-12 Thing (1) call by value : - The called functions Here, durict value is passed on to the for eg: # melude ~sldio h> # include < conto. h> i pid = 24 int fact (int a); 10 2 = 0 void main () peint-fi ("erder the number")) the familion, SUI ASHUT . value of and an area scanf (" glad", fn); In this case direct -fact(n);value, n'is passed on to the called int bet (vita) function by the calls functions call. ent i,f=1; for (i=1;i<n;i+t) -1=-1 *i print- (" d.) -))

(2) Call by Miguence SMIRIBUIDAB TO LOOHDE 2MDR In this case, address of the value is passed on it G function instead of the mal value .) ports for eg: # include <stdio.h> # include < conio. h> -int mathop(int a, int b, int *s, int *d); vad main () int a, b, s, d; (((()) a (als)) have q = 10; 6=20; -> Hen addum q' mathops (a, b, 4s, dd); value in passe print f ("sum is olod", s); by using add print - (" duff in clod", d); the diam opuator (4) getch (); (1) Call by value? di way tring math op (int a, int b, int * s, int *d) s it since a should be the * s = b+a j Ant pel(+ 1 +) ist ×d = b-a; () many hor - When we are passing address of the value, to the function we make any dange to the value, the value o -4 variable changes. (void main() for(ires ires it) (ires i en ji++) -nt a [5] [5], b(5) [5 (a town to print f(" rews"); \$ (1=+)(()=+) (()=+) ("minito" column") +1(bra[i]]+bli][i]) scant (' 4.d ", a +) scar ((" / .] " 4 c); for(ico, icr; i++) part & (sym) b[i][j] = a[j][i] chi (not syn) (print ("Isanspore in") : (" "here") "Inne " for (J=0;) < () +) scant (y.d. 4 dilli paint (4.1. b(71))

Page No. ... SCMS SCHOOL OF ENGINEERING & TECHNOLOGY PART-B (++1,)>),0=1)0 # include < stdio hy # include < conio. h> (FI)[]dod[I][]DD) void main () int a[5][5], b[5][5], 1, j, r, c, d=0; print-f ("entre no q nows"); scanf ("%d", 47); print ("ertu no. of columns"); scan-1 (" %d", Ac); &r (1=0; i<r; 1++) or subside of the and (millionland for (j=0, j< c; j++) 0210 17 ming scant (" god", 4 a [i][j]); for (i=0; i<r; i++) # arelade estaroh> So for (j=0, j < c ; j++) # include < conto h Weid main () () () لانالان] = مرنالانان int my charces terms sum , deg , print f ("Iranspore is"); Char Z ; Ar (10) is (11++) a converse of the surgers . L' Herringers . L') Houng $\int \frac{1}{\sqrt{j}} = 0 \quad j < c \quad j + \tau$ ecint (" entre the choice"), print (" (, d', b[i][j])) (what & that) trues Secter Colunia scentf (* enter (he mumber *)

SOMS SCHOOL OF ENGINEERING for (1=0; is rxit+) for (j=0; j< c; j++) ч (а[i][j]=b[i][j]) break else d=0 ; 1 REPERT $\mathcal{A}(d==1)$ printf(" matrix is symmetric" ŀ else not symmetric printf (" mat 1+1+ ([[][] + + + bay void main() int n, chorice, leurs, print ("chard"); scart ("I.d"; 4 charce); a, # include < stdio h > # include < con10. h> (++1 Switch (choice) void main () 0 case 1 pmin (" m") int n, choice, term, sum, deg, i ; ラソラ sean 1(" %d', 4n); char z; lum = 2 Sum = 1+2 do for (1=2; 15, 0; i++) print ("1. exponential \t 2. sine series \t 3. contre series), lem - lum x/Aito purit (" enter the choice "); sum-sum+tum, 142+ scan-1 ("% od", & choice); (((i)Fi) 12 Kz point ("ad", sum); switch (choice))1 Inne break case 1 peint f (" entre the number"); sian + (" % d", 4 x); print (erter limit "); scanf (""/od", 4n); # enclude

います sine Page No. . SCMS SCHOOL OF ENGINEERING & TECHNOLOGY x + r + (mat -) print (" dig") leim= ic ; (ike) * scant (" olod", sdy) sum= 1+2; + mass - print f ("limit"); Ar (1=1; i<n; i++) sour 1 (" "lod", 4 m); ((mus , "hox") Ideg # (3.14/150) term = term * x/(i+1) j sum = sum + term; do for (i= 1) (chitt) terms + termax * x/ais print+ ("volad", sum); Sum-sumt tum; preak j by () doty Case = 2. print (" entre the degue"); scant (" % d', & deg); # winder childing print f (" entre limit"); + underde clamic h > scant ("10d", 4n); x = deg * (3.4/180); () nism bod ked contraction chan lam=>c; sum = x; for (i=01; i<n; 1++) teem = (teem) * x * x / (2*i) * ((2*i)+1) ; sum = sum + tum ; enter the charace "). (sound & " bale + print (" so olod", sun); ruddy (chara break; case 3 peint of ("enter the degree "); scanf (" "lod", 4 deg); print of (" calu limit"); (" Pr (teo: 1 scarf (" "/od", 4 n); x= deg * (3.14/180); (++10 tum=x; (to the base a) sun=x;

SCMS SCHOOL OF ENGINEERI (++) (++) (++) teim = (-teim) * 2 * 2/((2 *i) * ((2 *i) -1)) ; sum - sum + tum; print-1 ("olod", sum); 2 break; t (i+i) (K + must = mis Printf (" Do you want to continue -if yos pus 'Y' else 'N' m scan+ (" % c", { z); (course "Fals") Haring While (< == 'Y'); getch (); much of all the store 3, #-include <sidio.h> Floyds At-01, 1,5 # include < conio. h> ("cours le ou) Hundan (scan ((~ ? od y j n), void main () for(izo;icn, i++) int i, k=1, c, j, s, n, choice; あ(j rujj<i j j++) char z; do (N -1) +++ ; print f ("1 Floyds (+ 2. Paocals"); print (" \W") print for conter the choice "); Pascals scan-1 (" old", 4 choice); printf ("no of rouss") switch (choice) scanf (144), for (i= a; i = n'; i++) prent ((a anter no. of rows"); case 1 +(g-1;s<n-1)s++) to be ited +) through scanf (""lod", 4n); (" 11mis pint (" "); for (1=0; 1=n; 1++)) ~ thi([+0,]<1))++) له (عارية عام) (عارية المرية المري المرية 1-1 (1==0) 1==0) printf("%d \t", k); k++; de = (+(-)+)))] print+(print+((" ? dy c);

WO. L 5 Page No. SCMS SCHOOL OF ENGINEERING & TECHNOLOGY Algorithm Step 2 get the super source and columns ("" ") 7-ming sup 3. got the expect math a break ; badana recort while spets and bages it gots case 2: purit -1 ("entur no of hows"); scan+ ("%d", 4n);[][] ~> [][]d : c. for (1=0;i<n;i++) [[][]] q hydrer a das c . Repeal stops while is into each for (s= 1; s<n-i; s++) and the following of all and filled and the punt f (* 4); is ap sous & a d مه الد (j=0) مورد (j++) مه الد کرد کرد می مورد می مورد می مورد مورد y . Chief whether d == 0, 1) μ (i==0∥j==0) I I Despergy makers an Marker of c=c*(i-j+i)/j; we for a line pentf ("°/od", c); PARTA 3, step of start peint ("(")) is provident trapic will have a $s = facket \leftarrow a[o]$ 4: Repeat the stops could is non wached punt f (" Doyou want to continue , of ges pross' & else IN!"); scant ("%c", fz); 1 5 Bisplay Largot 6: Smalled (= = 1); ('Y'= =); ('Y'==); shiper f; ('Y'=); shiper f; f there is filled of fill getch (); Fi] & -> leallance . 1 7 8 . Droplary maillest days . 4

CMS SCHOOL OF ENGINEERING & TECHNOLO 1, Algorithm:

sups: start Sup 2: get - the input rows and columns (""/") I long Slep 3: got the input matrix Step +; Repeal the steps will i < r is mached thered 1.1: Repeat the steps with j < c is reached A·2: b[i][j] ← a [j][i] (1 k · boly) + most Step 5 : Desplay 6[:][i] $= \left(+ 1 \left(\alpha > 1 \right) \left(\alpha = 1 \right) \left(\alpha \right)$ slips: Repeat steps while is is reached 6.1: Repeat styps with jec in reached in 6.2: check whather a [i][j] == b[i][j] of the go to 6.3 eloc goto 6.4 63: d+1; (++(i)) = (i)C. 4 : d ~ 0; 7: Check whether d == 0,1; if the go to 7.1 ebx (Com 0 1 1 - 16) 1 72 7.1: Despegy matrix is symmetric 7 2 Display matrix is not symmetric 8: Stop (Co Mode) 7 trang PART-A 3, step 1 : start 2 : get the input moust and elements .) I have s: largest ~ a[o] 4 : Repeat the steps with is n is usched ("In Alix check whether a [1] > largest , of the go to 14.2 A.2: largest a [i] proof (" Index and p 45: Bisplay largest (S.) 10000 smallest <- a [o] 6: 7: Check whether a [i] < smallest, of luce go to 7.1 7.1: smallest a [i] () datas 8 : Display mallest q: stop

2m Maniya Raphel CS2 Branch & Roll No. SCMS SCHOOL OF Date: 6-3-2019 ENGINEERING & TECHNOLOGY Subject Computer Programming 13) PARTB Menu driven program for floyds and pascals triangle #include < Stdio.h> ε # include 2 conio h> void main () Echand; int ch, n, K, i, j do printf("1. Floyde Triangle (n 2. Pascals Triangle"); private (" In Enter your choice"); scanf (" % d ", &ch); Switch (ch) Z 11 FLOYDS Case 1 printf("Enter the number of nowski); i=2. Scanf ("%.d" (91); Point (("Floyds Triangle"); K=1; -> (2 3. $for(i=1; i \ge n; i++)$ printf("(n")), $for(j=1; j \le i; j++)$ printf("\t %d", K); K = K + 1;ş break;

printf ("MEnter number of nourse") E Case 2 : int. Printf ("Y.d", & x) Printf (" in pascal through Seam (17. d' m(1=0; 12+; 1++ for(k=1; KZ= N; +++) { } provt(' '); \$ for (1=0; 12 los ; 1++) 4 (i==0 || j==0) C=1; de c=c*(1-j+1)/j; prime ("Id", c); provid ("1"); bruak ; default : primtf ("Sorry ! Innalis choice"), break; printf MDo you want to continue ? Buess of or n' scanf (" " ", & d), 4 { while (d == 'y'); getch();

TECHNOLOGY autput 1. Floyds Flangle 2. Pascals Triongle < A solution of all of the Enter your choice Enter number of nows 4 Floyds Triangle [or][or]d . [or][or]o 3 HOLMEN 4 5 6 How ("bd") for all 9 10 8 Do you wante to continue? Press y or 1. Floyds Triangle 2. Pascals Triangle Enter your choice 2 Enter number of lows 3 Pascal Tringle (B. M.) Imond

11 Transpose and symmetry) # shelide 2 stdie h> # enclude 2 comio h> vord main() 5 int a[10][10], b[10][10], i, j, M, C, K=0; chuscaes; primtf ("Enter no of rows"); Scan ("1.d", 4n); primity ("itnies no of colourns"); leand (""Ld", &c); for printf ("In Frites the climents of matrix"); for (= 0; 12m; 1++) 1 for (1=0; 12C; 1++) beanf ("1.d", & o[]][1]); 11 TRANSPOLE for (i=0; i=n; i++) A(=0, fec; ++) 300 6[1][1] = 0[1][1];

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(ulpade a Page No. SCMS SCHOOL OF ENGINEERING & TECHNOLOGY 11 Symmetry check for (i=0; i<1; i++) and a 125 C=2 for(j=0; j<c; j++) Ş if (a[i][i] != b[i][i]) " " " " 1.25 5 K = 15; 2000 jo on 20/m2 5 789 Erection ja an wind 25 P = = = Ilu mothin annal sayiona and not symm if (k = =)printf (" The given matrix is not symmetric); privet (" The given matrix is symmetric); else # Include & come has # include 2 math by () miam hiev else printf (" The mateix is not square getch(); & and not symmetric'); nolf loos ; printf ("In 1. Experiential General Since Since Since 15 3 GASTAR SO21

Output

1

Enter no of coloums 3 Enter the elements of makix 1 2 5 2 6 7 5 7 The given materize is symmetric

Enter no of nows 2 > Enter no of colours 3

The matrix is not square and not symmetric.

& Menuderiven - Sine Services, Cosine Beries, Exponential Series

include < Stdio h > # include < como h> # include < math. h>

vord main ()

privil (" the matrix is not so, 2 long ent bact; int ch, x, some n, num, i & j; temp, t; float term, sum, y; chan d. holest are of Relies do oton

printf("\n1. Exponential Berres \n 2. Sine Series In 3. Costne Beaks");

FLASIO

Name: fluera c Anil Branch & Roll No 4 IL , 4 , 52 C SCHOOL OF Date 06.03 Jest ENGINEERING & TECHNOLOGY Subject Computer Pubguamming FARY A 3. aunay. 1 - d for (i=0; ien; i++) (terminete"); teant ("god", ten); i mant (" god ", fali]); z 2-d anay int a [10][20] ; prunt + (" entry no of yours and columns"); seant (" led Ted", Ix, Py); Coster for (i=0; izx; i++) for li=0; ily; i++) { seant (" "lod ", falilij]); of (afits > raige.) ş а симерноднат module of with a set of statements a 125 Junition particular task. it can be called by 2. executing for main program infinite no of times. the void oweet (int x) 0 1 int n=2;0 a stress -4(x = = n){ punit (" there "); (alel & timaly) else [1]: 1 puintf ("Bye"); : (ne out " for in transmit " transmit : turition in divided mto two : puedefined function usualifined function utualy . afined the Audefined functions are m punit (), seant () etc. 19: (usen) assudificial functions and defined the programmers 19: usiel multiply () punt ("lad", y); 1 a=5; b=6;

include Istolio by # include (conio. by word lastge (int a [], whit n); - word small line als, int a); ant a [50], n ; clusur (s; print 1 " enter the no of elemente"); seant ("glad ", fn); print (" enter eliments into array "); s scant (" lod", palij); 1 large (a,n); gutch (); (a, n); 3 woid lattge (int a (10] , ant n) & Lauge = alo]; for li-1; icn ; i++) if (a[i] > lange) { lange - a [i]; 3 ALT A CHIMAN punt + (" tod is langest ", lange); 5 to which in property was at word small cent a [10], mit n). small - alo]; 2 фон (i=1; ikn; i++) i if (alit & small) i small - alij; ł punit (" lod is smallet", small); 3 4 1 24 1024 가지님 데 그렇게

and the second s

- woid and main () { mit a, b; prunte l'a antre turo numbrus"); seant (" led led ", pa, pb); add (a,b); getches ; 2 void add (int x, int y) mentioned unip that some upor due commit (p=x+y; puint (" led", p); X = x +1; y=y+r; (star) when here But (p) : Here, x & y gets menimerated by 1 but a f b umaini same . passing by superina ?: " I at a stand there the address of the actual parameters is send to the carled function changes done to the variances in the cauced function will affect the actual parametrus. same main ofunition excide add (ent +x, int y + y) ant p; p= * x + * y ; + x = + x+, 1; * y = * y+1; 5 Junction call add (f.a, fb); tunition dulawation for the burney word add (wit fa, mit zb); Hun, on changing the values of x & y , a & b gets actured . 121452000 10140 1. the 101

Part Freezeword

Page No. SCMS SCHOOL OF EN TECHNOLOGY na M ROIL NO'L PART B # initiate Astatio . hy 1. GY # include Kionio hy word main () [Silling [Black 1 wit a [o] [so], b [so] [so], m, m, j, i, e=0; duseu (); print 1 (" enter the no of nouse and columne"); want ("lod "lod", pm, In); print (" enter elimente"); fose (i= o; iam; i++) 1 for y=0; j < n', j++) 1 scant ("lod", &atijtj]); ł for live; itm; itt) 1 four (j-o) jen ; j++) int poly (c) punite (" transpose of materia"); 1 60] (j] = a[j][i]; for li=0; icm; i++) 2 for (joo; icn') ++) 2 punit (" god", s(i]ý]); 3 3 $u_{i}(m = = n)$ for li=0; icm; it+) ad inter the (4) { for (j=0; jen; jet) and means another to i alalistji != blistji) i Luin, it has { (=1: bucak; 1 - 13 max for on marting 1 if ((== 0) for for G-1; icm ; c { punt +1 " It is symmetric"); 4 else { puint f (" tt is not sym metaic"); getch (); printf (" lange st is", langelle);
staut 1 -01 (out the mout aconor and a more a ed and some a blistji = aljiti] 1 223 Lind Une of Lee Lee Lord . Lor 199 a sine m==n) being the man of transf selumni "Ve have "hed", In alisij1 - bligg man Sty Straffel for the of terms into Let Creditory (and) and Scarl 1" led " 1 mars False (==D) fran Display symmetric pisplay a symmeterie kt/sizet maint Co to () + (a) ((stop (nearly 100) # initude Litaio. by Contraction of ask 3 (n)# initial lionio by (the which is and uoid main (20002) + Collidate i unit n , i , j ; duscu (); print f (" entre no of rours"); mant (" lad", fn); (1 - b)^{2 (n - 1} (1 - 1)) for (1=1; ix=n ; i++) i punt (" lad ", i); proved (" it is but spectrum ") 13 3.2.10

with ENGINEERING & TECHNOLOOP Subject COMPUTER PROVIREMININU PART A 3. #include < stdie. h> # include < Coniv. h> Void man () 2 int a[n], i, j in Claser 12: Print F ("Enter the limit") : scane ("god" &n); 6 S () K. D.) painif (" Entry the elements") : for (1=0; icn; i++) (CIFI COST : Orignet 5 scanf ("obd; & a [i]): Carl Dallori 1 smallest = a [o] ; (LUCOC) bop has IRES Ballest > afti-For (1-0; icn; 1++) 0 2 IF (smallest > a[i]) 2 smallest = aci]; 7 pointf ("smallest is", smallest); 3 langest: a CO] ; for (1=0; i <n; i++) IF (langest < a[i]) langest= aci] . 2 printf (" large st is's largelle); 3

get ch co: 3 GINEERING & TECHNOLOG PARTB 1. Triampose of a matrix: # include <stdions # include < conio.hd Void main () £ Int α [i][i], ω [$\dot{\alpha}$][$\dot{\alpha}$], $\dot{\alpha}$, $\dot{\alpha}$, c; paintf ("Entry the nows and columns"); Scans ("god god", da, dc); Point ("solar the elements") for (1=0; i < 1 ; i++)) 2 For (1=0; j. (; j++) 5 sconf ("god" & aciscis); 3 7 for (1=0; icd; 1++) 3 Food (5=0; j2(; j++) 2 painif (" a ciscis") ; 3 3 getch(); 3 given matching symmetric on now? #Include Ladio.n> A Include CLONION () main biov 2 int aciti), beides), i, i, a, e;

chsin(); prints ("Entry the grout and coloumn"); Sconf ("lod old", &d, de); Ford (1:0; 1 col; 1++) 3 Fort (3=0; jec, 3+4) Y 2 p scant (ogod , & aciscis); 2 for (iso yied: i++) Ł for (1=0; j=c; j++) 7 (PCIJCIJ= aCIJCIJ; "Smooth (Taget the month If (b[i] ci] = aci)(i). (numbers by Lot ") that? 5 Flag=1 > (manage) drad briege; 1 1 2 2 3 (f (frag ==1) - (" to int strike and thing") + they paintf (" The given matation is symmetric) (in some we wante of 3 eve > paint & ("The given matain is and symmetric)). (1.2) (1.1) (1.2) Beach C 2: 3

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1 A A

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PARTB
   menu driven program to find the sum of i) sine serie
2.
    ii) cosme serve III) Emponeonial serve
    # include 29 dia. m
   # include 210min. ms
   Void mam ()
    2
    int is, or, condition, fact in), c',
    field term, sum, deg ;
    char y ;
    do
     5
      paintif (" 1. Earponential It 2. sine seates It 3. Lowne service It")
      scont for
      Paintif ("Entry the choice"):
      Scant ("olod", & condition);
      Switch (condition)
        ٤
      cose 1 :
            Paint f ("En Hr the value for n");
            Scant ("olad, dok);
           point f ("Entry the value of)
           Scant ("god, 4n);
           terman;
              fact = 1 "
             BOR al ablain
              Sum: 1;
           ford (i=1;icn;i++)
            2
            Fact: Fact + 1;
            SUM-
            Learn = (Kym + 91)/fact :
             Sum: Sum+ Kim;
           3
            break >
```

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Page No. SCMS SCHOOL OF ENGINEERING & TECHNOLOGY Case 2: point f ("Entry the value For ox") > sconf (" olof", & deg) : paints ("Entry the value for n")) Scant ("lod, 4n); ox = deg + 0.0 1944 kerm: 91 sum. a for (iso; icn; ita) 2 terms (CI) * Leven + 21 + 12/ (CQ+i) \$ 2+1+1-2 SUM = SUM + KAM 3 bareale; Ponnt I ("Entry the value For n"); case 3: mo bid has but scant (" oloof", d deg); point & ("Entry the value for n'): 01110 scanf ("god, dn): n= deg 1 0.01 13 k warmen 201 Kims1; sym=1; [m((1=0; icn; i++) S kym: Edd - term + 01 + 01 / (2+i) (2+i-1) Sum= sumt trim', 3

break ,

(1

0

an 100 -

Bograme to she a set of name PA Dandeocstation 3 Deale Oscothors Vaid marry) Þ While £ do print ("do you want to continue to or N) 14 Sont ("%), 4 6); IF ((== 4); ene? boreak > gatch(); PART A declaration and initialisation of 1-d and 2-d array The best sectors and encounty of energy declanation of one-dimensional andray ()) for en:-a[13[0] a(P)/ ⇒ a [i] @ Mr. D. Cort D. Down Where a = annay name [i] - number of elements in the average declarradius of two dimension array =) a (1)(1) Dia. whore as array name i number it over it j - number of colum. initial sation of one-dimension array :compile) time we can up



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Page No. .. SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

tone rgs ART-B Menu driven program to display floods and poscals 3. Parcau # maude (stdio. L) hoyds #include (conio.w) ۱ 2 2 Void main () 3 56 4 3 incor to see a second marrier of Ink i, j, condition. CH GIDTZ> abury A CHOMODA about th 00 Common biov 3 printf (" 1. hoyds triangle 2. pascass triangle"): $\pi_i(y)$ points ("Entry the choice") - 1 (and c) (02)000) Scan + ("old, & condition) >["] grant, [ord[ow] mon not) C'asia why " I wing Switch (condition)) Sconf (" abd ding -3 2 Prints of anna ") from 1 Case 1. 3 3 5 P ((1) Smor (topar) laws Hiti * ~ 2 NCL 3+2-1++ 1 - 1 - (+ 0-)) he) & 1:3 +-+ 12 1 n=1 x 2 n= 3×4 4566 5.5 (1) ITEN good I same of i emi d

It is alled for calling a function by this pairing assigning. the function from main program. to when we apply this function Call control go to the Function. and again control come back + 5. parameter passing method (() method () in the If the formal parameter changes does not change with actual parameter than it is called as call by value. Contraction and an all and an and an and If the formal parameter changes with the actual parameter then It is called as call by reference. Start - Start at many 2. the deal and 1000 Milesen attends on and 1. A. PAAS Continu:function definition:with new with calmed back 0 It is too define the function. The individual program concers is used Syntan: to return value. datature function name (anguement). action when a los with all plant (CUCUD & Lot" Jamos during your time the for white it as Contensies (grige) = (15000 m 3 " is found on and in the call of a form a should be A PARA Montan Inder and Aller to your a home a mailant and second the His super sands the shall the shall A court of 11 - Bailed Snow and the chicked St could server and and and metants with make

Branch & Roll No. SCMS SCHOOL OF STATE TECHNOLOGY subject computer VisHNUT.P × dural a lor csa poll-51 Port B # indude Lstdio. h> It include Coonio . h > Void maine? int x, m, i ; Print (" 1. an sine series (m 2. cosine socies (m 3. export tiel m); sconf ("%d", ach); Switch (ch) and the stres ") of this of 2 case 1 : 1 b } b }) }) } mas flaat 2, temp=0, sum = 0; Paint f ("enter yhe walke of x and m"); sanf ("%d %d, d & dm); z= x + (3.14 8/180); temp=x,; sun = x; ((1-10)+10) to a + durat = durat

for (i=1; izm; i++) temp= temp * x * x * -1/(ai * (2i+)); Scun = Sum + temp ; 2) # indudo 2 statio h > Point f (""/.d", sum); 1, or , or tri break j. a of aires where and . I'm trive? case 2 float 2, temp=0, sum=0; Print f ("enter The welve of x and m"). Scanf (" "/od "/od", dx dm); x,= x * (3.14/180) ; 17 true? temp=1; sum=1; アプ 、ノチーン 数 41.81米 for Ci=1; icm; i++) temp = temp * x * -1 (ai * (2i - D);

+mine 9 Sum = sum + kemp i point f ("of d", sum); 3E-II 16 DLOGY Paral ((Che Share another and saved float x, z z, i i i i case 3 Point(" enter yte wake of rand m); scanf(" o/od % d' dx dm); x = x + (2) + (180);gote shebs the = > + > c * x * y * donal = donal = - 2 dat 2 , a questioner mus i den joitt) Fri for City 1 K & Hand = quest : F ques Erros - Errol terlo. kemp = temp # 20/F * i ; Sum = summer themp mus trived : of data Pad 2 - 1 Holal 8

Point f (""/.d", sun); " to yo') + tring bounk ; paint f (" do your manthe continue.] scanf (" %d", dch); 280) flocit 20, 2 to alf algouthm paintfl' anter stepi 'start step 2 initialise unaicables. sundtuger . Step 3 : get desided ceud Hew 1 Step 4: if antiput is go to spep 5 Steps: temp=temp#x *x*-1 (ai (si+D) Sem = Juntlemp b Step 6 : your peit is 2 gratedlep 7 stup 7: temp = temp # x # -1 (2i (2i-D)6 Sun = Sum 1 temp Step 8: it output is 3 golo stop 9 supa: temp= temp *x/fxi Sun = kemp Y kenp Step 10 : point own step 11: step

SCMS SCHOOL OF Date 6/03 2013 ENGINEERING & TECHNOLOGY Branch & Roll No CSE-II 16 Subject COMPACER PROGRAMMING 1. 1-D Areau Declaration data anerayname (3:30); datatype anaay name [size]; € ₹ 3. so int a [so]; # include < st dio. b> #include < conio. h> Void main () 5 int i, n, a [50], laagest, smallest; Parint of ("Enter the no of elements in the array"); 2 Scanf ("% d", kn); fon(i=0; i < n; i++)V scanf(" "/od", & a[i]);

Point f C" " d", r. G 4. #include < stdio #include & conio. h> void maine) 3 int n, i, a [50]; j) temps, claser(); printf ("Enter the no of names"); scanf(""|od", kn); point ("Enter the names"); fog (i=0; i=n ; i++) & forscarfe (""/d", & aci]); fon (i=0; i <= n; i++) fou(j=0; j=n; j++)

E blatil Latit!) temp = a [j]; a[j] = a [j+i]; alit] = temp; 3 paintfl" names after swapping is:); douto for (i=o; izn; i++) perint(" "lod", a G]); getch(); PART - B 2. #include < som statio. h> #includez conio. h > (an/+ 23) + 2 = , 2 void main () int i, re, team = 0, sum = 0, n, choice; float on, ; paintf("1. sine seaies, M2. cosine Series (n3. Exponential series Score (toot Parintf("Enter the choice"); scanf (" lod", & Choice); do Switch (choice);

1 1 case 1. Parinty ("Enter the limit); scanf(" "/od", kn); Perintfl" Enter the value of x"); Scanf ("%d", kax); X, = x * (B.14/120); Sum = x ;; team = x, for(i=0; iz=n; i++)team = team * X1 * X1 / 21 (21+) , Sum = sum + tem; perint f(" sum of sine seaies is " (d, sum); Case 2: Printf ("Enter the limit"); scanf(" 'lod", & n); Printfl" Enter the value of x"); sconfl" lod, & x); ×1=×*(3.14*/180); Sum = 1 UZ , O - FRONST , M , HI term = 1; fog (i=0; i=n; i++). pare of " 1. Stor come term = - fears * X, * x, /2i(2i-1) Sum= sum + team; FRENHLI FEITER HE. printf(" sum of cosine series is %d', sum); Concert Dela had Case 3 :