

## PACE INSTITUTE OF TECHNOLOGY \& SCIENCES::ONGOLE (AUTONOMOUS)

I B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, FEB - 2023 C-PROGRAMMING FOR PROBLEM SOLVING (Common to All Branches)
Time: 3 hours
Max. Marks: 60
Note: Question Paper consists of Two parts (Part-A and Part-B)
PART-A
Answer all the questions in Part-A $(5 X 2=10 \mathrm{M})$

| .No. |  | Questions | Marks | CO | KL |
| :---: | :--- | :--- | :---: | :---: | :---: |
| 1 | a) | Define i) Software ii) Program. | $[2 \mathrm{M}]$ | 1 | 1 |
|  | b) | While Loop vs Do-While Loop. | $[2 \mathrm{M}]$ | 2 | 2 |
|  | c) | How to Pass an array to function. | $[2 \mathrm{M}]$ | 3 | 3 |
|  | d) | Discuss about string manipulation function. | $[2 \mathrm{M}]$ | 4 | 2 |
|  | e) | What is the Syntax of Structure and Union? | $[2 \mathrm{M}]$ | 5 | 2 |

PART-B
Answer One Question from each UNIT (5X10=50M)

| Q.No. |  | Questions | Marks | CO | KL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| UNIT-I |  |  |  |  |  |
| 2. | a) | What is algorithm? Write an Algorithm to addition of N numbers. | [5M] | 1 | 3 |
|  | b) | What are the steps to be followed to solve logical and numerical problems? | [5M] | 1 | 2 |
| OR |  |  |  |  |  |
| 3. | a) | Define Flowchart. Discuss Flowchart symbols. | [5M] | 1 | 2 |
|  | b) | Discuss about software development process. | [5M] | 1 | 2 |
| UNIT-II |  |  |  |  |  |
| 4. | a) | Discuss about different operators used in C Programming. | [5M] | 2 | 3 |
|  | b) | Write a program using If-Else -If statements in C Programming. | [5M] | 2 | 3 |
| OR |  |  |  |  |  |
| 5. | a) | Discuss about different expressions used in C Programing. | [5M] | 2 | 2 |
|  | b) | Write a program using Switch Statement in C program. | [5M] | 2 | 3 |
| UNIT-III |  |  |  |  |  |
| 6. | a) | Discuss about C user defined functions. | [5M] | 3 | 2 |
|  | b) | Write a C Program to find largest of N numbers using FOR loop. | [5M] | 3 | 3 |
| OR |  |  |  |  |  |
| 7. | a) | Discuss about C Recursive functions with Syntax. | [5M] | 3 | 2 |
|  | b) | Write a C Program to find smallest of N numbers using FOR loop. | [5M] | 3 | 3 |
| UNIT-IV |  |  |  |  |  |
| 8. | a) | Discuss about operations on Pointers. | [5M] | 4 | 2 |
|  | b) | Write a C program to find given string is Palindrome or Not. | [5M] | 4 | 3 |
| OR |  |  |  |  |  |
| 9. | a) | What do you mean by Dynamic memory allocation? Explain with example. | [5M] | 4 | 2 |


|  | b) | Write a C program to print string using Pointers. | [5M] | 4 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| UNIT-V |  |  |  |  |  |
| 10. | a) | Structure Vs Union. | [5M] | 5 | 2 |
|  | b) | Write a program which opens a file in write mode. | [5M] | 5 | 3 |
| OR |  |  |  |  |  |
| 11. | a) | Illustrate array of structures with example C Program explain with example | [5M] | 5 | 3 |
|  | b) | Discuss about Random access functions. | [5M] | 5 | 2 |

