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**A Reg. No. :**

**Question Paper Code: 51027**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

First Semester

Civil Engineering

15UCS107 - COMPUTER PROGRAMMING

(Common to ALL branches)

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | Which of the following is an example of non volatile memory? | | | | CO1- R | | | | | |
|  | (a) ROM | | (b) LSI | (c) VLSI | (d) RAM | | | | | |
| 2. | The first mechanical computer designed by Charles Babbage was called? | | | | CO1- R | | | | | |
|  | (a) Abacus | | (b) Calculator | (c) CD Drive | (d) Analytical Engine | | | | | |
| 3. | C is? | | | | CO2- R | | | | | |
|  | (a) Assembly Language | | | (b) High Level Programming Language | | | | | | |
|  | (c) Machine Language | | | (d) All the above | | | | | | |
| 4. | Representation for logical operator | | | | | CO2- R | | | | |
|  | (a) && | | (b) ? | (c) // | | (d) ! | | | | |
| 5. | Three types of loops are | | | | | CO3- R | | | | |
|  | (a) None of these | | | | | | | | | |
|  | (b) Infinite loop, counting loop, nested loop | | | | | | | | | |
|  | (c) While loop, do while loop & for loop | | | | | | | | | |
|  | (d) Count up loop, count down loop, infinite loop | | | | | | | | | |
| 6. | Syntax for break statement | | | | | CO3- R | | | | |
|  | (a) break() | | | (b) break; | | | | | | |
|  | (c) break { } | | | (d) break (); | | | | | | |
| 7. | Length of the string is terminated by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_character | | | | | | | | CO4- R | |
|  | (a) “\n” | | (b) ‘\0’ | (c) “\000’ | | | | | (d) None | |
| 8. | Function which is called by itself is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | | CO4- R | |
|  | (a) Declaration of function | | | (b) Function definition | | | | | | |
|  | (c) Recursion | | | (d) None | | | | | | |
| 9. | What is (void\*)0? | | | | | | | | CO5- R | |
|  | (a) Representation of null pointer | | | (b) Representation of void pointer | | | | | | |
|  | (c) Error | | | (d) None | | | | | | |
| 10. | Which of the following are themselves a collection of different data types? | | | | | | CO5- R | | | |
|  | (a) Array | | (b) Character | (c) Structure | | | (d) All of the above | | | |
|  | PART – B (5 x 2= 10Marks) | | | | | | | | | |
| 11. | Mention any two advantages of Algorithm. CO1- U | | | | | | | | | |
| 12. | List out any two rules for variable declaration. CO-2 U | | | | | | | | | |
| 13. | Give the syntax for switch case statement. CO-3 U | | | | | | | | | |
| 14. | Declare a float array of size 6 and initialize values to it. CO-4 Ana | | | | | | | | | |
| 15. | Define structure. CO5-U | | | | | | | | | |
|  | PART – C (5 x 16= 80Marks) | | | | | | | | | |
| 16. | (a) | Explain any four generations of computers with its characteristics. | | | | | | CO1- U | | (16) |
|  |  | Or | | | | | |  | |  |
|  | (b) | Explain the flow chart symbols in detail and draw a flow chart to find the largest of three numbers. | | | | | | CO1- U | | (16) |
|  |  |  | | | | | |  | |  |
| 17. | (a) | Explain the structure of C program and write a C program to calculate the area and circumference of a circle. | | | | | | CO2- U | | (16) |
|  |  | Or | | | | | |  | |  |
|  | (b) | Explain in detail about input and output operations in C with examples. | | | | | | CO2- U | | (16) |
|  |  |  | | | | | |  | |  |
| 18. | (a) | (i) Write a C Program to display the total marks of five subjects,  Average and grade of a student with following conditions.  Average less than 50 – F  Average 50 – 59 – E  Average 60 – 69 – D  Average 70 – 79 - C  Greater than 80 - O | | | | | | CO3-App | | (10) |
|  |  | (ii) Write C program to check the given year is leap year or not. | | | | | | CO3-App | | (6) |
|  |  | Or | | | | | |  | |  |
|  | (b) | Explain in detail various looping structures available in C language with illustrative programs. | | | | | | CO3- U | | (16) |
| 19. | (a) | Define Array and write a C program to perform 3x3 matrix multiplication. | | | | | | CO4- U | | (16) |
|  |  | Or | | | | | |  | |  |
|  | (b) | Explain the standard string functions available in C. Illustrate any two functions with an example program. | | | | | | CO-4-Ana | | (16) |
|  |  |  | | | | | |  | |  |
| 20. | (a) | (i) Define structure and write C program to store the information  of students name, date of birth, roll number, marks and  display it. | | | | | | CO5- U | | (10) |
|  |  | (ii) Write a c program to swap two numbers using pointers. | | | | | | CO5- U | | (6) |
|  |  | Or | | | | | |  | |  |
|  | (b) | Define union and illustrate with two example programmes. | | | | | | CO5- U | | (16) |