Reg. No. :

Question Paper Code: 41106

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2015.

First Semester

Civil Engineering

14UCS106 – COMPUTER PROGRAMMING

(Common to all branches)

(Regulation 2014)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 1 = 10 Marks)

1. What is a volatile memory?
   (a) that requires power to maintain the stored information
   (b) does not require a maintained power supply to retain the stored information
   (c) Permanent memory
   (d) Very large memory

2. _____ is programming analysis tool that is used for planning program logic.
   (a) Algorithm   (b) Flow chart   (c) Pseudo code   (d) High level languages

3. When we use CASE control structure?
   (a) To choose one from multiple alternates
   (b) To switch from one instruction to another
   (c) To make the execution fast
   (d) To change the Case of the text used

4. The statement that transfers control to the beginning of the loop is called
   (a) Break   (b) Exit   (c) Continue   (d) Goto

5. If an array is used as function argument, the array is passed as
    (a) By value   (b) By reference
    (c) By name   (d) The array cannot be passed as function argument

6. What will be the output of the following program?

```
main()
{  static char a[]="BOMBAY";
char *b = "BOMBAY";
printf("\n%d%d",sizeof(a), sizeof(b)); }
```

    (a) a =7,b=7   (b) a =7,b=2   (c) a =2,b=7   (d) a =7,b=0

7. Which of the following operation cannot be performed on pointers in C?
    (a) Addition of two pointers
    (b) Subtraction of a number from a pointer
    (c) Subtraction of one pointer from another
    (d) Addition of a number to a pointer

8. First function to be called when the program starts execution is
    (a) Recursive function   (b) Standard I/O function
    (c) Main function   (d) Operating system function

9. Given the statement, maruti.engine.bolts=25, which of the following is true?
    (a) Structure bolts is nested within structure engine
    (b) Structure engine is nested within structure maruti
    (c) Structure maruti is nested within structure engine
    (d) Structure bolts is nested within structure bolts

10. The function fprintf() is used in a program
    (a) When too many printf calls have been already used in the program
    (b) In place of printf, since printf uses more memory
    (c) When the output is to be printed on to a file
    (d) When the type of variables to be printed are not known before

PART - B (5 x 2 = 10 Marks)

11. What are the steps to solve the problem in a computer system?

12. What is meant by Enumerated data type?

13. Mention the various String Manipulation Functions in C.

14. Distinguish between Call by value and Call by reference.

15. What is a pointer? What its uses?

PART - C (5 x 16 = 80 Marks)

16. (a) What is a computer? What are its Characteristics? Discuss about the generations of computers (16)

Or

(b) (i) Draw a flowchart for finding the factorial of a given number. (6)

(ii) Explain the basic organization of computers with a neat sketch. (10)

17. (a) (i) What are Operators and operands? Mention various types of operators in C. (10)

(ii) Write a C program to find given year is leap year or not. (6)

Or

(b) (i) Write a C program to reverse digits of a given number (8)

(ii) Explain about various looping statements in C and compare them. (8)

18. (a) Define array. Discuss about array initialization, declaration, access elements with example (16)

Or

(b) What is meant by sorting? List various sorting techniques. Explain anyone with an example. (16)

19. (a) (i) Write a C program to print Fibonacci series using recursive functions (8)

(ii) Explain about different parameter passing methods in C with example. (8)

Or

(b) Discuss about dynamic memory allocation in detail. (16)

20. (a) Define structure. Explain it in detail with example. Compare structure and union. (16)

Or

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(b) (i) Explain in detail on preprocessor directives in C. (10)

(ii) State the need and operation of union with suitable example. (6)

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