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**Question Paper Code: 41206**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

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. A computer assisted method for the recording and analyzing of existing or hypothetical systems is
  - (a) Data transmission
  - (b) Data flow
  - (c) Data capture
  - (d) Data processing
2. What difference does the 5th generation computer have from other generation computers?
  - (a) Technological advancement
  - (b) Scientific code
  - (c) Object Oriented Programming
  - (d) All the Above
3. Which of the following are token in C?
  - (a) Keywords
  - (b) Variables
  - (c) Constants
  - (d) All the Above
4. The case keyword is followed by
  - (a) float values
  - (b) integer values
  - (c) character values
  - (d) both b and c

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. Which of the following is not a built in functions in C?
  - (a) getchar
  - (b) putchar
  - (c) gets
  - (d) get\_select\_str
7. malloc () function used in dynamic allocation is available in which header file?
  - (a) stdio.h
  - (b) stdlib.h
  - (c) conio.h
  - (d) mem.h
8. What is (void\*)0?
  - (a) Null pointer
  - (b) Void pointer
  - (c) New pointer
  - (d) All the Above
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. calloc ( ) takes \_\_\_\_ number of arguments.
  - (a) 1
  - (b) 2
  - (c) 3
  - (d) 4

PART - B (5 x 2 = 10 Marks)

11. Differentiate between primary memory and secondary memory.
12. What is the importance of keywords in C.
13. Give any two functions related to string handling.
14. Distinguish between Call by value and Call by reference.
15. Give some examples for preprocessor directives.

PART - C (5 x 16 = 80 Marks)

16. (a) Elaborate on different generations and classifications of computers. (16)
- Or
- (b) (i) Explain the various phases involved in problem solving. (8)

(ii) With suitable example explain the need for flowchart. (8)

17. (a) (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)

Or

(b) Describe the different types of operators available in C. (16)

18. (a) (i) Write a program using pointers to read an array of integers and print its elements in ascending order. (8)

(ii) With suitable examples explain the string handling functions. (8)

Or

(b) Write a C program to find max / min of an array and perform linear search. (16)

19. (a) Explain function prototypes with syntax and examples. (16)

Or

(b) (i) Explain about (1) the rules for pointers arithmetic (2) Arrays of pointers. (8)

(ii) Write a C program to simulate a simple storage mechanism like either stack or queue using dynamic memory allocation methods. (8)

20. (a) Write a C program for library management using structures and unions. (16)

Or

(b) Write a C program for payroll application using structures with 'e' or "e[10]" as structure variable. (16)

