SEMESTER – 1 : COMPUTER APPLICATIONS (CORE COURSE)

COURSE: 15U1CRCAP2 - PROGRAMMING IN 'C'

(For Regular - 2018 Admission and Improvement 2017/ Supplementary 2017, 2016, 2015 admissions) Time : Three Hours Max. Marks: 75

PART A

Answer all questions in one sentence each. Each question carries 1 mark.

- 1. Define pseudo code.
- 2. What is Modular programming?
- 3. What are escape sequences?
- 4. What is the purpose of sizeof() operator?
- 5. Define string.
- 6. What is the limitation of using scanf() in reading strings?
- 7. Define scope of a variable.
- 8. What is function?
- 9. What is the significance of EOF?
- 10. What are file modes?

 $(1 \times 10 = 10)$

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PART B

Answer any eight questions in one or two sentences. Each question carries 2 marks

- 11. Write an algorithm to display the reverse of a given number.
- 12. What are benefits of bottom up approach?
- 13. Briefly explain increment/decrement operators.
- 14. List the rules for naming an identifier.
- 15. Distinguish between break and continue statements.
- 16. Briefly explain arrays.
- 17. What are typedef statements?
- 18. What is function prototype?
- 19. List any two typical applications of pointers.
- 20. What are command-line arguments?

(2 x 8 = 16)

PART C

Answer any five questions. Each carries 5 marks

- 21. Describe the features of a good program.
- 22. Explain different type conversions in expressions.

 $(5 \times 5 = 25)$

- 23. Write a C program to print the transpose of a 3X3 matrix.
- 24. Compare if..elseif...else statement with switch statement.
- 25. Explain the difference between call by value and call by reference method of parameter passing using suitable examples.
- 26. Explain recursion .Write a program to find factorial of a number using recursion.
- 27. Briefly explain the functions used for opening and closing files.

PART D

Answer any two Questions. Each carries 12 marks 28. Write a short note on the following:a) Flowcharts (6) (6) b) Modular programming 29. Explain looping statements in C with example for each. 30. Explain the following:a) Storage Classes (8) b) Union (4) 31. a) Briefly explain the arithmetic operations on pointers (4) b) Explain the concept of pointers to structures with an example program. (8) $(12 \times 2 = 24)$
