18P138	(Pages: 2)	Name:
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# FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2018

(Regular/Supplementary/Improvement) (CUCSS-PG)

# CC17P CSS1 C04 - THE ART OF PROGRAMMING METHODOLOGY

(Computer Science)

(2017 Admission onwards)

Time: Three Hours Maximum: 36 Weightage

#### PART A

Answer all questions. Each question carries 1 weightage.

- 1. Write difference between keywords and identifiers.
- 2. Define trigraph characters.
- 3. What is the use of size of operator?
- 4. State and explain two types of errors in programming.
- 5. What are self referential structures?
- 6. Distinguish between getchar and scanf functions.
- 7. Define dynamic arrays.
- 8. What is the use of rewind function? Explain with an example.
- 9. What is a bit field?
- 10. Explain chain pointers.
- 11. Define algorithm.
- 12. What is a macro?

 $(12 \times 1 = 12 \text{ Weightage})$ 

### **PART B**

Answer any six questions. Each question carries 2 weightage.

- 13. Explain the basic structure of C program.
- 14. The price of one kg orange is Rs.60.00 and one kg of apple is Rs.100.00. Write a program to get these value from the user and display the price as follows:

\*\*\*\*LIST OF ITEMS\*\*\*\*

Item Price
Orange 60.00
Apple 100.00

- 15. (a) Explain type conversions in expressions.
  - (b) Explain operator precedence and associativity.

- 16. Explain the different operators in C.
- 17. Write a program to find the number of and sum of all integers greater than 100 and less than 200 that are divisible by 7.
- 18. Discuss categories of function.
- 19. What are command line arguments? Explain its usage and purpose with suitable example.
- 20. Write down characteristic of algorithm and flowchart with an example.
- 21. Write steps for executing a 'C' program.

 $(6 \times 2 = 12 \text{ Weightage})$ 

## **PART C**

Answer any *three* questions. Each question carries 4 weightage.

- 22. a) Explain the various string handling functions.
  - b) Write a program to copy one file to another. Specify the filenames at command line.
- 23. What is a character array?
  - a) Explain how dynamic memory allocation is done in C. Discuss the operations on pointers.
  - b) Write a program using structures to count the total number of days elapsed between two given dates.
- 24. a) What is recursion? Explain with suitable example.
  - b) Explain call by value and call by reference with suitable example.
- 25. What is a macro? Explain different types of macros with suitable examples.
- 26. Explain control statements in C.
- 27. a) Write a program to explain array of pointers.
  - b) What do you mean by dereferencing? Explain it in detail.

 $(3 \times 4 = 12 \text{ Weightage})$ 

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