Sub. Code 7BCAA2

U.G. DEGREE EXAMINATION, NOVEMBER 2021

Computer Applications

Allied — PROGRAMMING IN C

(CBCS - 2017 onwards)

Time: 3 Hours Maximum: 75 Marks

Part A $(10 \times 2 = 20)$

Answer all questions.

- 1. What is the difference between the branch and loop statements in C?
- 2. What are the bitwise operators available in C?
- 3. How will you initialize string variable?
- 4. What is an array? Give an example.
- 5. What are the advantages of user defined function?
- 6. Define Union.
- 7. What are the advantages of Pointer?
- 8. How will you access a variable using Pointer?
- 9. What are the various File opening modes available in C?
- 10. What is a Random access File?

Part B

 $(5 \times 5 = 25)$

Answer all questions, choosing either (a) or (b).

11. (a) Write a C program to count the numbers that are divisible by 3 and 6 between 100 and 300.

Or

- (b) Write a C program to solve the quadratic equation for all cases.
- 12. (a) Explain the string handling functions available in C with example.

Or

- (b) How will you read strings from terminal? Explain with example.
- 13. (a) Explain nesting of function with an example.

Or

- (b) Explain arrays within structures with an example.
- 14. (a) What is a Pointer? Explain Pointer arithmetic with an example.

Or

- (b) Explain Pointer and Structure with an example.
- 15. (a) Explain I/O operations on files with example.

Or

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(b) Explain command line arguments with an example.

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Part C $(3 \times 10 = 30)$

Answer any **three** questions.

- 16. Explain the various Data types available in C with example.
- 17. Write a C program to add two matrices.
- 18. Explain array of structures with a C program.
- 19. Write a C program to find the biggest element in the array using Pointer.
- 20. Write a C program to display the details of the student (name, class rollnum, height and weight) whose height greater than 176 cm. Assume that the file is an existing one.

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