Reg.	No	

Name.....

B.Sc./B.C.A. DEGREE (CBCS) EXAMINATION, JANUARY/FEBRUARY 2018

First Semester

Core—METHODOLOGY OF PROGRAMMING AND C LANGUAGE
(Common to B.C.A., B.Sc. (CS), B.Sc. (IT), B.Sc. [Computer Application Triple Main])
(2017 Admissions)

Time: Three Hours

Maximum Marks: 80

Part A

Answer any ten questions. Each question carries 2 marks.

- 1. What is algorithm?
- 2. What is a pointer?
- 3. What are key words?
- 4. What is pseudo code?
- 5. Define linker.
- 6. What is meant by testing and debugging?
- 7. Briefly explain the characteristics of a good program.
- 8. Discuss the purpose of program planning.
- 9. What are enumerated datatypes?
- 10. What is a variable ? What are variable naming rules ?
- 11. List any three unconditional branching statements.
- 12. What are header files? Give examples.

 $(10 \times 2 = 20)$

Part B

Answer any six questions.

Each question carries 5 marks.

- 13. Discuss various bitwise operations in C.
- 14. What are strings? Explain any 5 standard string functions.
- 15. What are structures in C? How is it different from union? Give example.
- 16. Discuss various arithmetic operations with pointers.

Turn over

- 17. Explain the difference between entry controlled and exit controlled loops. Explain with the help of suitable example.
- 18. What are language translators?
- 19. What is meant by dynamic memory allocation? Explain.
- 20. What is recursion? Explain direct and indirect recursion.
- 21. With the help of flowchart, explain any two decision statements in C. Give examples.

 $(6 \times 5 = 30)$

Part C

Answer any two questions.

Each question carries 15 marks.

- 22. Write a C program to add two square matrices.
- 23. Write notes on various operators in C.
- 24. What is a function? Discuss different types of functions. Give examples.
- 25. Explain in detail the various data types in C.

 $(2 \times 15 = 30)$