E 8438

(Pages : 2) 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 × 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 × 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 × 15 = 30)