



QP – 412

I Semester B.C.A. Degree Examination, March/April 2022

(CBCS) (Y2K14) (R)

COMPUTER SCIENCE

BCA103T : Problem Solving Techniques Using C

Time : 3 Hours

Max. Marks : 70

- Instructions :**
- 1) Answer **all** Sections.
  - 2) Section – **A** : Answer **any ten** questions.
  - 3) Section – **B** : Answer **any five** questions.

SECTION – A

I. Answer **any ten** questions : (10×2=20)

- 1) What is structural programming ?
- 2) Define an algorithm.
- 3) Write the syntax of for loop with an example.
- 4) What do you mean by recursion ?
- 5) Write any one difference between break and continue.
- 6) How is 2-D array initialized ?
- 7) What are storage classes ?
- 8) What is string ? What is the length of the string 'COMPUTER' ?
- 9) Define pointer with an example.
- 10) Define union. Give an example.
- 11) Write any four file functions.
- 12) What is a macro ?

P.T.O.



## SECTION - B

- II. Answer **any five** questions : (5×10=50)
- 13) a) Write a flow chart to check whether given year is leap year or not. 5  
b) Explain different data types in C with an example. 5
- 14) a) Differentiate between actual and formal parameters in C. 5  
b) Write a C program to demonstrate bitwise operators. 5
- 15) Explain three looping statements with an example. 10
- 16) a) Explain four storage classes available in C. 5  
b) Define structure. How do you declare array of structure ? 5
- 17) a) Explain call by value and call by reference with an example. 5  
b) Write a C program to find length of string using pointers. 5
- 18) a) What are the different modes of opening a text file ? Explain with an example. 5  
b) Explain preprocessor directives. 5
- 19) Write a C program to find addition and subtraction of two given matrices. 10
- 20) Write short notes on :  
a) Local variable and global variable. 5  
b) Switch case with an example. 5