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GF—14—2023

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (CS) (Second Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

Paper (Part-II)

(Intro. to Programming Language Using C)

(Monday, 24-4-2023)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—75

- N.B. :—*
- (i) All questions are compulsory.
 - (ii) Figures to the right indicate full marks.
 - (iii) Assume suitable data, if required.
 - (iv) Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.

1. Attempt any *five* of the following (3 marks each) : 15
- (a) Explain operations on file.
 - (b) Explain types of functions.
 - (c) Explain malloc() memory allocation function.
 - (d) Explain command line arguments.
 - (e) Explain difference between structure and union.
 - (f) Explain calloc() memory allocation function.
 - (g) Explain storage classes in detail.

P.T.O.

2. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain recursion with suitable example.
 - (b) Explain dynamic memory allocation.
 - (c) Write a program to perform addition of two numbers using function.
 - (d) Explain strcmp() string library functions.
 - (e) Write a program to find max of two numbers using function.
3. Attempt any *three* of the following (5 marks each) : 15
- (a) What is pointer ? Explain pointer declaration in detail.
 - (b) Explain types of file in detail.
 - (c) What is structure ? Explain nested structure.
 - (d) Explain the concept of array of structure.
 - (e) Write a program pointer to pointer.
4. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain concept of union with suitable example.
 - (b) Explain pointer to structure in detail.
 - (c) Write a program to find factorial of given number using recursion.
 - (d) Write a program to read the data from a file.
 - (e) Explain dereferencing pointers in detail.
5. Write short notes of any *three* of the following (5 marks each) : 15
- (a) strcpy() and strcat()
 - (b) random access file
 - (c) strlen()
 - (d) Pointer to function
 - (e) Pointer to Pointer