[Total No. of Questions - 9] [Total No. of Printed Pages - 3]

Dec-24-0318 (NEP)

MCA-6101 (Programming in C)

MCA-1st CBCS/NEP

Time : 3 Hours **Max. Marks : 60**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note: Attempt five questions in all, select one question each from section A, B, C, D. Section E (Question-9) is compulsory.

Section-A

1. a. What are storage classes in C, explain with examples? (6)

   b. Write a C program to read the age of a candidate and determine whether he/she is eligible to cast his/her own vote. (6)

OR

2. a. What are Formatted and Unformatted I/O functions in C? Explain with examples. (6)

   b. Write a C program to check whether a given number is positive or negative. (6)

Section-B

3 a. What is the difference between call by value and call by reference? Explain with suitable example. (6)

   b. Write a program in C to copy the elements of one array into another array. (6)

OR

4 a. Write a C program to sort a list of elements using the selection sort algorithm. (6)

   b. What are different operations performed on pointers? Explain with examples. (6)

Section-C

5 a. What is self-referential structure? Explain with a program. (6)

   b. Write a program in C to copy one string to another string. (6)

OR

6 a. Write a program in C to find the length of a string without using library functions. (6)

   b. Create a structure named Book to store book details like title, author, and price for three books and also find the most expensive and the lowest priced books, and display their information. (6)

Section-D

7. a. Write a program in C to read an existing file. (6)

   b. How can data types be renamed with typecasting? (6)

OR

8. a. Write a program in C to merge two files and write them to another file. (6)

   b. What are Preprocessor and Preprocessor Directives in C? (6)

[P.T.O.]

Section-E (Compulsory)

9 a. How append() is different from trunc() function?

b. What is Enumerated datatype?

c. State the term flowchart and why is it helpful in writing C program.

d. What is utility of EOF()?

e. How many bytes are needed to store int a [20]?

f. Explain calloc(). (6×2=12)