B.Sc DEGREE (CBCS) REGULAR/IMPROVEMENT/REAPPEARANCE EXAMINATIONS, FEBRUARY 2023

First Semester

B.Sc Electronics and Computer Maintenance Model III

Core Course - EM1CRT01 - C PROGRAMMING

2017 Admission Onwards

3AF6EC8A

Time: 3 Hours   Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. If a =11 and b=3,what is the value of a%b?

2. What is an expression? How is an expression different from variables?

3. Consider the C statement x = (j+k>5)?(j+k):5; What will happen when this statement is executed if j=5 and k= 3.

4. What is meant by typecasting?

5. Write any two escape sequences and their functions.

6. What is looping?

7. What would be printed at the end of the following program segment? x=12; while (x>7) { printf("%d/n ",x); x--; }

8. What is multidimensional array?

9. What is the use of getchar() function?

10. Write at least three advantages of functions.

11. What is meant by incrementing and decrementing pointers?

12. What will be the output ? #define SQUARE(X) X * X void main ( ) { printf ("\n Square = %d" , SQUARE(10+2)); }

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. What do you understand by constant, variable and keywords? Discuss the scope of a variable.

14. Write about the functions used for formatted input and output in C.

15. What are the different decision control structure available in C. Explain with examples.

16. Explain the features of an array and their uses.

17. Write a program to copy one string into another.

18. What is a structure? How can you access a structure member ? Explain with example.

19. Write a program to swap two values using pointers in function.

20. What is the difference between the statements rewind(fp); and fseek(fp,0L,0);?

21. What are command line arguments?Explain .Write a simple program using command line arguments.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. a)Write an algorithm to find the average of 100 scores. b)Write an algorithm and draw the flowchart to add the number of digits in a given 4-digit number. Eg for 1234 ,the answer is 10.

23. Write a program to read a line of text and output the number of words and characters in it.

24. a) What is meant by the scope and lifetime of variables in functions? b)Explain the difference between static and extern storage class with examples.

25. Write a program in 'C' to store the roll no. and marks of 5 subjects in a file. Read the contents of file and display the roll no. and total marks obtained by each student in a class

(2×15=30)