



MBZ-003-1152001 Seat No. _____

M. Sc. (Ele.) (Sem. II) (CBCS) Examination

April / May - 2018

Paper - V : The C Language

Faculty Code : 003

Subject Code : 1152001

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1** Answer the following questions in brief : (Any **Seven**) **14**
- (1) Differentiate between structure and union.
 - (2) Write a program to print largest of three numbers.
 - (3) Explain calloc and malloc function.
 - (4) Write a program to calculate factorial of n.
 - (5) What is entry controlled loop? Give examples.
 - (6) Briefly explain declaration of one dimensional array.
 - (7) Categorize functions based on argument and return.
 - (8) Enlist different types of storage classes available in C.
 - (9) Write a program to print multiplication table of n on console.
 - (10) Explain conditional statement.
- 2** Attempt any **two** of the following questions : **14**
(Each 7 Marks)
- (1) How many data-types are there in C. Describe all primary data types.
 - (2) Explain fprintf and fscanf functions. Write a program to copy file A.TXT to B.TXT.
 - (3) With neat diagram and suitable example explain the control flow in a multi-function program.
- 3** Answer the following questions :
- (1) What is recursion? Write a program to calculate value of factorial of n (n!) using recursive function. **5**

- (2) Write a detailed note on structure declaration and initialization. **5**
- (3) Write a program to arrange an array of 10 integers in descending order. **4**

OR

- 3** Answer the following questions :
- (1) Write a program to print following pattern on console. **5**
- ```
1
2 3
4 5 6
```
- (2) What is structure? Describe declaration and initialization of structure. Also write a program to collect following data of students using structure. **5**
- Roll No., Name, Height, Weight
- (3) How one can declare constants in C. **4**
- 4** Answer the following questions :
- (1) Explain in details the storage classes of C. **5**
- (2) Explain getch, getc, putc and putchar functions. **5**
- (3) Write a program to find HCF and LCM of two numbers read from keyboard. **4**
- 5** Answer any **two** of the following questions : **14**  
(Each 7 Marks)
- (1) Write a detailed note on nested if-else and else-if ladder. Write a program to decide grade of a student from marks of 4 subjects. Grades O( $\geq 90$ ), A( $\geq 80$ ), B( $\geq 70$ ), C( $\geq 60$ ), D( $\geq 50$ ), E( $\geq 40$ ), F( $< 40$ )
- (2) Briefly explain declaration and initialization of two-dimension and multi-dimension arrays.
- (3) Write a short note on increments and scale factors for pointers. Also write a program using pointer to receive two matrices from console, add the matrices and print the resultant matrix on console.
- (4) Enlist and describe all operators available with C.