



C16-EC-402

6436

BOARD DIPLOMA EXAMINATION, (C-16)
MARCH/APRIL—2018
DECE—FOURTH SEMESTER EXAMINATION
PROGRAMMING IN C AND MATLAB

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Write about increment and decrement operators in C language.
2. List the logical operators used in C language with symbols.
3. List three iterative statements supported by C language.
4. Write a C program to check that given number is even or odd.
5. Write three uses of functions.
6. Write the operation of getchar(), getch(), and putchar() functions.
7. Define a union.
8. Write the syntax to access members of a structure with examples.
9. List relational operators used in MATLAB.
10. What is the usage of control system tool box in MATLAB?

PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. (a) List and explain the arithmetic operators in C language. 5
(b) Write a C program to find area of triangle. 5
12. (a) Explain while statement with syntax and example. 5
(b) Write a C program to find the sum of the series : 5
 $1^2 \quad 2^2 \quad \dots \quad n^2$
13. Write a C program for multiplication of two matrices.
14. Write the operations of following string manipulation functions :
(a) strcat()
(b) strcmp()
(c) strcpy()
(d) strlen()
(e) strncmp()
15. (a) Explain passing parameters to the function. 4
(b) Write a program for exchange of two numbers using pass by reference techniques. 6
16. Explain any five pre-processor commands.
17. Explain declaration and initialization of structures.
18. Explain plot commands (a) plot (x,y), (b) title (), (c) xlabel ()
(d) ylabel () (e) legend () in MATLAB.
