End Sem(IV) —
IT (SEC – 2)

2022

Time : 3 hours

Full Marks : 75

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group – A
(Compulsory)

1. Choose the correct answer of the following : 1×10 = 10

(a) MATLAB stands for :

(i) Math Laboratory

(ii) Matrix Laboratory

(iii) Math works

(iv) None of these

(b) MATLAB command that clears all data and variables stored in the memory :

(i) CLS (ii) Clear

(iii) Delete (iv) None of these

(c) To print a newline in a fprintf statement the escape sequence character used is :

(i) \t (ii) \nl

(iii) \n (iv) \nxt

(d) To add a comment to the mfile the MATLAB command is :

(i) % (ii) ;

(iii) Comment (' ') (iv) &

(e) To join one or more strings into a single string is known as :

(i) Concatenation

(ii) Joining

(iii) String conversion

(iv) All of these

(f) With fprintf command the % g is used as the :

(i) Single character display

(ii) Fixed point display

(iii) String notation display

(iv) Default number display

(g) Which of these is not an aspect of a for / while loop ?

(i) Update (ii) Initialization

(iii) Runner (iv) Condition

(h) In MATLAB, keyword immediately moves to the next iteration of the loop is :

(i) update (ii) go to

(iii) continue (iv) break

(i) The operator used to see if two elements are equal in MATLAB is :

(i) ! = (ii) ==

(iii) is equal (iv) =

(j) Index of an array in MATLAB start with :

(i) 0 (ii) 1

(iii) Depends on the class of array

(iv) Unknown

2. Explain the MATLAB environment in detail. 5

Group – B

Answer any **four** questions of the following :

15×4 = 60

3. (a) Write down the important features of MATLAB.

(b) Write a program in MATLAB to plot a graphics for random number between 1 to 100.

4. (a) What are the basic graph plots used in MATLAB ?

   (b) Explain about different operators used in MATLAB.

5. (a) Write a program in MATLAB to check a year is leap year or not.

   (b) Explain about different constants used in MATLAB.

6. (a) What are the basic functions used in MATLAB ?

   (b) Create a user define function to check a number is prime or not.

7. (a) What are the different control statements used in MATLAB ? Explain with example.

   (b) Write a function in MATLAB to find the factorial of a given number.

8. (a) What do you mean by array ? Explain it with context to MATLAB with example.

   (b) Write a program in MATLAB to create one dimensional array to store 10 elements and store it in descending order.

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