PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
B.Sc./IMSC, Summer 2017-18 Examination

Semester: 4   Date: 17/05/2018
Subject Code: 11106253   Time: 10:30am to 11:45am
Subject Name: MATLAB   Total Marks: 30

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1. A) Multiple choice questions.(Each of 01 mark)   (04)
1) Which of the following command is used to find maximum element in a vector X?
   (a) max(X)   (b) min(X)   (c)maximum(X)   (d) none of these
2) Which of the following designates comment and specifies formatting in MATLAB?
   (a) \   (b) %   (c) *   (d) //
3) The MATLAB command ____ is used to clear command window.
   (a) Clear all   (b) ccw   (c) clc   (d) none of these

4) Which of the following command is used to find $A \cup B$ for two sets A and B?
   (a) Union(A,B)   (b) union(A,B)   (c) $A \cup B$ (d) none of these

Q.1. B) Answer the following: (Each of 02 mark)   (04)
1) State the MATLAB commands used to (a) find size of a matrix A (b) stop and quit the MATLAB.
2) Using for loop display the value of x starting with 1 up to 10.

Q.2. A) Answer the following in short: (Each of 01 mark)   (04)
1. What does NaN indicates in MATLAB?
2. Which format command in MATLAB displays the numeric values up to 16 decimal places?
3. State the MATLAB command to find square root of a real number.
4. State the MATLAB's loop control statements.

Q.2. B) Do as directed. (Each of 02 mark)   (04)
1) State any four mathematical areas where MATLAB's computational power can be used.
2) What are the MATLAB commands to find:
   (i) determinant (ii) transpose (iii) rank (iv) inverse of matrix A.

Q.3. Answer any two of the following question.(Each of 04 marks)   (08)
1) Discuss syntax and description of any four arithmetic operators and functions both without examples.
2) Discuss any four format commands for numeric values. (without examples)

3) Write syntax and working of **any two** of the following conditional statements: (a) if…end   (b) if…else…end (c) if…elseif…else…end.

Q.4. Answer any one of the following questions. (each of 06 marks)   (06)
1) Discuss with examples use of set operations (**any three**) in MATLAB.
2) Write a MATLAB program to create bar, stair and stem plot with proper labels and title for the vector x=[1 2 5 4].