63 (FY)SEM–3/SEC/MATSEC2013

2024

MATHEMATICS

Paper : MATSEC2013

(Scilab)

Full Marks : 40

Pass Marks : 16

Time : Two hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer : 1×5=5

   (i) Which one of the following functions is true about Scilab ?

   (a) They are all user-defined

   (b) Functions do not have arguments

   (c) User-defined functions are a subset of all functions

   (d) User-defined functions are a super-set of all functions

Contd.

(ii) Which one of the following functions is not a mathematical function in Scilab ?

(a) Trigonometric functions

(b) Absolute value function

(c) Gamma function

(d) Logarithmic function

(iii) Key building depend on which of the following?

(a) Operating system

(b) Text bar

(c) Printer

(d) Keyboard

(iv) Which one of the following is not used to write algorithms for numerical computation ?

(a) FORTAT

(b) Python

(c) Java

(d) Calculator

(v) Which of the following is not a mathematical operation in Scilab?

(a) Division

(b) Multiplication

(c) Addition

(d) Computation

2. Answer the following questions : ***(any five)*** 2×5=10

(i) Write any four physical constants in Scilab.

(ii) What is Scilab?

(iii) What is Autocompletion in Scilab?

(iv) What is Tab Completion?

(v) Write four mathematical operations in Scilab in precedence order.

(vi) Write *any two* predefined mathematical functions in Scilab.

(vii) Write *any two* mathematical functions in Scilab.

3. Answer the following questions : ***(any three)*** 5×3=15

(i) What are the five main data types ?

(ii) What are the five parts of Scilab workspace ?

(iii) How to write a text file in Scilab ?

(iv) What are the different types of plots in Scilab ?

(v) Write the steps to install Scilab in PC.

4. Answer the following question : ***(any one)*** 10×1=10

i. How to plot 2D and 3D graphs in Scilab ?

ii. What are matrix and vector ? How to do matrix and vector in Scilab ?