

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

PROGRAMMING METHODOLOGY

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Describe algorithm.
2. Expand ASCII.
3. How can declare to store the height of 10 students in an array.
4. State one difference between procedure and a function.
5. Describe modular programming.

(5 × 2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. State the difference between character constant and string constants with an example.
2. Describe the rules to form variable names.
3. Explain the different types of loops.
4. Write an algorithm to find out the greater number from given two numbers.
5. Describe one and two dimensional array with examples.
6. Write an algorithm to accept 10 characters and print in reverse order.
7. Describe the local and global variables.

(5 × 6 = 30)

## PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

## UNIT — I

- III (a) Write an algorithm to convert Length in Centimetre to Length in Inch  
(Hint : one Inch = 2.54 Centimeter) 6
- (b) Write an algorithm to find out the area of a Triangle. 9

OR

- IV (a) Explain the program development cycle. 6
- (b) Write an algorithm to find out the simple interest ( $I = PNR$ ). 9

## UNIT — II

- V (a) Describe the different types of control structures/instructions. 6
- (b) Write an algorithm to find out the greatest number from given three numbers. 9

OR

- VI (a) Describe "select case" with suitable example. 6
- (b) Write an algorithm to print odd numbers from "x" to "Y". 9

## UNIT — III

- VII (a) Write an algorithm to find out the average of "N" numbers from an array. 6
- (b) Write an algorithm to Sort an array of "N" Numbers. 9

OR

- VIII (a) Write an algorithm to store total mark of "N" students in to an array and count the number of students who secured total marks above 200. 6
- (b) Write an algorithm to print the transpose of a matrix (Two dimensional array). 9

## UNIT — IV

- IX (a) Describe recursion with an example. 6
- (b) Write an algorithm to find out the area of a rectangle using function. 9

OR

- X (a) Describe the different types of files. 6
- (b) Write an algorithm to find out the number of digits of a number using a function. 9