E-211

B.C.A. EXAMINATION, May 2018

(Fifth Semester)

(B. Scheme) (Re-appear Only)

BCA301B

PRINCIPLES OF SOFTWARE ENGINEERING

Time : 3 *Hours*]   [*Maximum Marks :* 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks. Answer to the point.

Unit I

1. Explain the waterfall model for software development. List its advantages and disadvantages. **15**

2. Explain the PERT and CPM tools for project scheduling. **15**

Unit II

3. Write notes on the following :
   (i) ER diagrams
   (ii) Data Dictionary and its importance. **15**

4. What is Cohesion ? Explain different types of cohesion in detail. **15**

Unit III

5. Explain the need of structured programming methodology. List the languages which support structured programming methodology. **15**

6. Consider a simple program to classify a triangle. Its inputs is a triple of positive integers (say x, y, z) and the data type for input parameters ensures that these will be integers greater than 0 and less than or equal to 100. The program output may be one of the following words :
   [Scalene; Isosceles; Equilateral; Not a triangle]
   Design the equivalent class test cases. **15**

Unit IV

7. Write notes on the following : **15**
   (a) Integration Testing
   (b) Validation Testing.

8. What is Maintenance ? Expain its different types.