Reg. No. | | | | | | | | | |

BCACAC 311

Credit Based Fifth Semester B.C.A. Degree Examination, November/December 2015 (New Syllabus) (2014-15 Batch Onwards) SOFTWARE ENGINEERING

Time : 3 Hours

Max. Marks : 100

***Note**: Answer **any ten** questions from Part – **A** and **one full** question from **each** Unit of Part – **B**.*

PART – A

(10×2=20)

1. a) Give the IEEE definition for software and Software Engineering.

   b) Which model is used for developing a software for automation of existing manual system and why ?

   c) What is Module ?

   d) What are design walkthroughs ?

   e) What are Data source and sink ? How to represent them in DFDs ?

   f) What is Data abstraction ?

   g) Define most abstract input and most abstract output.

   h) Define test cases.

   i) What do you mean by divide and conquer ?

   j) Define fault and failure.

   k) Differentiate between glass box and white box testing.

   l) Mention any two important aspects of WinRunner.

P.T.O.

PART – B

UNIT – I

2. a) Briefly explain the software engineering problems.

   b) Explain the waterfall model. Write the advantages and disadvantages of it.

   c) Explain the quality attributes of software engineering. **(7+8+5)**

3. a) Explain prototyping model.

   b) Explain any two characteristics of software process.

   c) Write a note on software problem.

   d) Write a note on software metrics, measurement and models. **(6+4+6+4)**

UNIT – II

4. a) Explain the characteristics of an SRS.

   b) What is coupling ? Explain the various factors that effect on coupling.

   c) Explain steps in SDM strategy. **(8+5+7)**

5. a) Explain DFD with example.

   b) Write a note on decision table.

   c) Define cohesion. Explain different types of cohesion.

   d) Explain the structure chart. **(5+4+7+4)**

UNIT – III

6. a) Explain PDL with suitable examples.

   b) Explain structured programming.

   c) Explain the verification methods of a detailed design. **(6+6+8)**

7. a) Write a note on Logic/Algorithm design.
   b) Explain symbolic execution and execution tree.
   c) Explain internal documentation. **(8+8+4)**

UNIT – IV

8. a) Explain dataflow based testing with suitable examples.
   b) Write a note on adaptive and corrective maintenance.
   c) Explain SQA, Robot and LoadRunner. **(6+8+6)**

9. a) Explain the equivalence class partitioning.
   b) Explain preventive and corrective maintenance.
   c) Explain control flow based testing.
   d) Explain Silk Test. **(4+7+6+3)**
