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**BCMCAC 381**

**Choice Based Credit System Sixth Semester B.Com.  
Degree Examination, September 2022  
(New Syllabus) (2021-22 Batch Onwards)  
COMPUTER APPLICATIONS (Vocational)  
Software Engineering**

Time : 3 Hours

Max. Marks : 80

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

**PART – A**

1. Answer **any ten** of the following :

**(10×2=20)**

- a) Give IEEE definition of software engineering.
- b) Mention the problems of software engineering.
- c) Define Software process.
- d) Define Maintainability and Portability.
- e) What are work products ?
- f) What is throwaway approach of prototyping ?
- g) List the four major activities in SDM.
- h) What is internal documentation ?
- i) What do you mean by static analysis with respect to coding ?
- j) What do you mean by testing ?
- k) Define (i) Fault (ii) Error.
- l) What is a cause and effect in cause-effect graphing ?

**PART – B**

Answer **one full** question from **each** Unit.

**Unit – I**

2. a) Explain any two characteristics of software process.
- b) Explain the software Engineering problem.
- c) Explain the iterative Enhancement model.
3. a) Explain the phases in Software Engineering approach.
- b) With a help of diagram explain the Waterfall model.

**(4+6+5)**

**(7+8)**

**P.T.O.**



**Unit – II**

- 4. a) Explain characteristics of an SRS.
- b) Explain the various levels of cohesion. **(8+7)**
- 5. a) Explain structure of an SRS document.
- b) What is a DFD ? What are the various symbols used in a DFD ? **(8+7)**

**Unit – III**

- 6. a) Explain the common coding errors.
- b) Write a note on i) PDL ii) Information Hiding. **(5+10)**
- 7. a) Explain stepwise refinement techniques used to design algorithms.
- b) Explain Symbolic Execution and Execution Tree. **(8+7)**

**Unit – IV**

- 8. a) Explain Black-Box and White-Box testing.
  - b) Explain Cause-Effect graph based testing with examples. **(5+10)**
  - 9. a) Explain preventive and corrective maintenance of Software.
  - b) Explain equivalence class partitioning and boundary value analysis. **(7+8)**
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