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UG (CBCS) IIIrd Year Annual Examination

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B.A. COMPUTER APPLICATION

(Software Engineering)

(SEC-4)

[Common with Computer Science and B.Sc. Physical
Science (COMP303TH)]

Paper : COMP 308 TH

Time : 3 Hours]

[Maximum Marks : 70

Note :- Attempt *one* question each from the Parts-B, C, D
and E. Part-A is a compulsory question.

Part-A

(Compulsory Question)

1. (i) Which is NOT a software characteristic ?
- (a) Software does not wear out.
 - (b) Software is flexible.

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(1)

Turn Over

- (c) Software is not manufactured.
 - (d) Software is always correct.
- (ii) Which of the following is not a software process model ?
- (a) Linear sequential model
 - (b) Prototyping model
 - (c) The spiral model
 - (d) COCOMO model
- (iii) Which process model is also called a classical life-cycle model ?
- (a) Waterfall model
 - (b) RAD model
 - (c) Prototyping model
 - (d) Incremental model

(iv) SRS stands for :

- (a) Software Requirements Specification
- (b) System Requirements Specification
- (c) Systematic Requirements Specification
- (d) None of these

(v) Which one is the measure of software complexity ?

- (a) Number of line of codes (LOC)
- (b) Number of man years
- (c) Number of function points (FP)
- (d) All of these

(vi) The relationship of data elements in a module is called :

- (a) Coupling
- (b) Cohesion

- (c) Modularity
- (d) None of these

(vii) of a system is the structure or structures of the system which comprise software elements, the externally visible properties of these elements and the relationship amongst them.

- (a) Software construction
- (b) Software evolution
- (c) Software architecture
- (d) Software reuse

(viii) Which is not a functional testing technique ?

- (a) Boundary value analysis
- (b) Decision table
- (c) Regression testing
- (d) None of these

- (ix) Cyclomatic complexity is equal to :
- (a) Number of independent paths
 - (b) Number of paths
 - (c) Number of edges
 - (d) None of these
- (x) Testing of software with actual data and in actual environment is called :
- (a) Alpha testing
 - (b) Beta testing
 - (c) Regression testing
 - (d) None of these
- 1×10=10

Part-B

2. (a) What do you mean by the Waterfall model of software development ? Explain.
- (b) Describe Computer based systems with suitable examples.
- 8,7

3. What are functional and non-functional requirements ?

Explain with *two* suitable examples.

15

Part-C

4. Differentiate between the following :

(a) Coupling and Cohesion

(b) Data Design and Architecture Design

8,7

5. What do you mean by Real time software design ?

Describe the importance of these systems in detail.

15

Part-D

6. Describe how SCM is a major part of Software Development using suitable examples. Also explain the SCM standard.

15

7. (a) What are software complexity measures ?

(b) What do you mean by Project Scheduling ?

7,8

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(6)

Part-E

8. What do you mean by Software Testing ? Describe testing techniques in detail. 15
9. (a) Explain the concept of debugging with suitable examples.
- (b) What do you mean by reverse engineering ? 7,8