

## MCA 17 Software Engineering

### SET: 1

#### Section-A

(Very Short Answer Questions)

- 1) What is software engineering?
- 2) What is SDLC?
- 3) What is customer evaluation in spiral model?
- 4) PERT stands for\_\_\_\_\_
- 5) Measurement can be categorised into two ways: \_\_\_\_\_ and \_\_\_\_\_.
- 6) What is risk management?
- 7) What is software requirement?
- 8) What is unit testing?
- 9) What is black box testing?
- 10) What is quality?

#### Section-B

(Short Answer Questions)

- 1) What are the principles of software engineering?
- 2) What is RAD? Explain its stages.
- 3) Describe the levels of validation.
- 4) What is function point? Explain with suitable example.
- 5) What are the decomposition techniques? Discuss problem based estimation and process based estimation in brief.
- 6) What is software requirement specification (SRS) document? Outline its goals.
- 7) What is structural Analysis? Discuss the following tools available for structural analysis.
  - a. Data Flow Diagram
  - b. Decision Table
- 8) What are the steps followed in software design phase?

#### Section-C

(Long Answer Questions)

- 1) What is modularity? Explain the concept of cohesion and coupling in detail.
- 2) What is COCOMO? Describe the various modes of COCOMO estimation model giving examples of application falling in each area.
- 3) Explain the traditional project management approach.
- 4) Explain the qualities of software product in detail.

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## **MCA 17 Software Engineering**

### **SET: 2**

#### **Section-A**

(Very Short Answer Questions)

- 1) What is the difference between an error and defect?
- 2) Explain the aim of software engineering?
- 3) What is prototype?
- 4) What is Formal Methods Model?
- 5) What all activities are included in project management?
- 6) What is Software Engineering Environment (SEE)?
- 7) What is software project estimate?
- 8) What is requirement elicitation?
- 9) What is cyclomatic complexity?
- 10) What is software design?

#### **Section-B**

(Short Answer Questions)

- 1) What are the principles of software engineering?
- 2) What is white box testing? Explain structural testing in detail.
- 3) Describe the Critical Chain Project Management.
- 4) What is LOC metrics? Explain with suitable example.
- 5) What are the decomposition techniques? Discuss problem based estimation and process based estimation in brief.
- 6) What is software requirement specification (SRS) document? Outline its goals.
- 7) What is structural Analysis? Discuss the following tools available for structural analysis.
  - a. Entity Relationship Diagram
  - b. Decision Table
- 8) What are the steps followed in software design phase?

#### **Section-C**

(Long Answer Questions)

- 1) What is abstraction? Explain the concept of encapsulation and information hiding detail.
- 2) What is software reliability? Explain the ISO 9000 quality standards.
- 3) What is 'Data Modelling'? Explain the data objects, attributes, and relationships with suitable examples.
- 4) What is system testing? Explain the following types of system testing in detail:
  - a. Performance testing
  - b. Stress testing
  - c. Security testing
  - d. Recovery testing

