2022-25

CBCS

(Vocational)

Full Marks : 60

Time : 3 Hours

Candidates are required to give their answer in their own words as far as practicable. Their figures in the margin indicate full marks.

Answer from **both** the Sections as directed.

Section – A
(Compulsory)

1. Answer the following : 1×10=10

(i) Which of the following is not a characteristic of software ?
  (a) Software is engineered
  (b) Software doesn't wear out
  (c) Software is manufactured
  (d) Software in intangible

(ii) The term 'software crisis' is used to describe :

(a) High maintenance cost

(b) Project overruns and failures

(c) Hardware malfunction

(d) Lack of documentation

(iii) Which role is responsible for vision and direction in a team ?

(a) Programmer

(b) Tester

(c) Leader

(d) Designer

(iv) Which document defines the complete software requirements ?

(a) SRS

(b) ERD

(c) DFD

(d) PERT

(v) Which diagram shows the data flow in a system ?

(a) ERD

(b) DFD

(c) State diagram

(d) Class diagram

(vi) Which model is used for cost estimation ?

(a) Spiral Model

(b) Waterfall Model

(c) COCOMO II

(d) Agile

(vii) Data dictionary is used to :

(a) Show user interface

(b) Store entity relationships

(c) Store data about data

(d) Plan timelines

(viii) PERT stands for :

(a) Project Evaluation and Resource Tracking

(b) Program Evaluation and Review Technique

(c) All of the above

(d) None

(ix) Which principle helps in reducing inter-module dependencies ?

(a) Coupling

(b) Modularity

(c) Abstraction

(d) Encapsulation

(x) Project metrics are used to measure :-

(a) System output

(b) Project management status

(c) All of the above

(d) None

2. Differentiate between Spiral and Agile models. 5

Section – B

Answer any **three** of the following : 15×3=45

3. (a) What is Software ? Explain the characteristics of software Engineering.

(b) Define software crisis and its causes.

4. (a) Discuss the role of people in software project management.

(b) Explain the structure and importance of the SRS document.

5. (a) Discuss the ERD with an example.

(b) Differentiate between PERT and CPM.

6. (a) Differentiate between process metrics and project metrics.

(b) Describe the objectives and principles of software testing ?

7. (a) Describe the design principles in software engineering.

(b) Explain cohesion and its types.

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