23ITU418

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Fourth Semester)

Branch – **INFORMATION TECHNOLOGY**

SOFTWARE ENGINEERING

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1 _____ is a principle that is available in the repertoire of a software engineer to handle problem complexity.
(i) Abstraction (ii) Decomposition
(iii) Control Flow (iv) Polymorphism

2 A module is said to have _____ cohesion, if all functions of the module refer to or update the same data structure.
(i) functional (ii) Sequential
(iii) communicational (iv) procedural

3 _____ is shown as an arrow between two states.
(i) Initial state (ii) Intermediate state
(iii) Final state (iv) Transition

4 Probability of a product working satisfactorily within a specific period of time is called as _____.
(i) Reliability (ii) Conformance
(iii) Durability (iv) Serviceability

5 _____ produces a set of incremental prototypes that demonstrate functionality for the customer.
(i) Business study (ii) Functional model iteration
(iii) Design and build iteration (iv) Implementation

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a How does Evolution happen from an Art Form to an Engineering Discipline? Explain.

OR

b Compare Different Life Cycle Models.

7 a Summarise about Requirements Gathering and Analysis.

OR

b How do you Characterize a Good Software Design? Explain.

8 a Deduct the importance of Class Diagram.

OR

b Explain about the function of Activity Diagram.

9 a Show the importance of System Testing.

OR

b Provide your opinion about Software Quality Models.

10 a Conclude the concepts involved in Software Reverse Engineering.

OR

b Narrate the principles for achieving agility.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11 a Explore about Emergence of Software Engineering.

OR

b Demonstrate on Iterative Waterfall Model.

12 a Bring out the importance of Software Requirements Specification.

OR

b Discuss the classifications of Cohesiveness.

13 a Sketch about Use Case Model.

OR

b Criticize the Fundamentals of Component-based GUI Development.

14 a Analyze about White-Box Testing.

OR

b Survey on SEI Capability Maturity Model.

15 a Organize a neat sketch on Characteristics of Software Maintenance.

OR

b Examine about any six other agile process models.

Z-Z-Z END