PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Fifth Semester)

Branch – **COMPUTER SCIENCE**

SOFTWARE ENGINEERING & DESIGN

Time: Three Hours Maximum: 50 Marks

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

1 _____ is an incremental software process model that emphasizes a short development cycle.
(i) RAD Model (ii) Waterfall Model
(iii) Prototyping Model (iv) Spiral Model

2 Which one of the following is not a step of requirement engineering?
(i) elicitation (ii) design
(iii) analysis (iv) documentation

3 Quality costs may be divided into costs associated with _____
(i) Customers, developers and maintenance
(ii) People, process and product
(iii) Prevention, appraisal and failure
(iv) Analyse, design and verify

4 Which of the following risk is the failure of a purchased component to perform as expected?
(i) Programming risk (ii) Project risk
(iii) Business risk (iv) Product risk

5 How many stages are there in software process improvement?
(i) three (ii)four (iii) five (iv) six

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

6 a Bring out the different categories of computer software applications that present continuing challenges for software engineers.
OR
b Describe in brief about the characteristics of software engineering.

7 a How to describe the use cases? Explain.
OR
b Write short notes on modularity.

8 a State the stress testing.
OR
b Classify the three kinds of functional specification.

9 a Define software scope and its functions.
OR
b Show the three general condition of risk refinement.

10 a Outline the five most widely used SPI framework.
OR
b Identify a number of success factors that lead to achieve successful collaborative efforts.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

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

11 a Explain about the software process framework and its activities.

OR

b Elucidate various agility principles of software engineering.

12 a Summarize the requirements elicitation process of software engineering.

OR

b Point out the five different kinds of software design model.

13 a Enumerate the Black box testing technique.

OR

b Describe the merits for the requirements model.

14 a Illustrate the COCOMO Model used for software project estimation.

OR

b With neat diagram, express the different activities of BPR model.

15 a Elaborate the various components of SPI process.

OR

b Examine the role of Capability Maturity Model to develop quality software in detail.

Z-Z-Z END