

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2019
(Third Semester)

Branch - INFORMATION TECHNOLOGY

SOFTWARE ENGINEERING

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

In the software life cycle, effort distributed to testing phase,

- (i) 10 % (ii) 8%
(iii) 16% (iv) 12%

Brooks has observed that the number of communication path among programmers grows as _____

- (i) $n(n+1)/2$ (ii) $n(n-1)/2$
(iii) $(n-1)/2$ (iv) $(n+1)/2$

_____ is the ability of a program to perform a required function under stated conditions for a stated period of time.

- (i) Portability (ii) Reliability
(iii) Efficiency (iv) Accuracy

The system should make user's jobs more interesting is

- (i) Qualitative Process Goal (ii) Quantitative Process Goal
(iii) Qualitative Product Goal (iv) Quantitative Product Goal

_____ state the properties of a solution without stating a solution method.

- (i) Implicit equations (ii) Recurrence relations
(iii) Algebraic axioms (iv) Regular expressions

_____ interacts directly with the hardware.

- (i) Applications programs (ii) Utility Programs
(iii) Systems Programs (iv) None of the above

_____ involves the use of parameter lists to pass data items between routines.

- (i) content coupling (ii) common coupling
(iii) control coupling (iv) data coupling

_____ is top - down technique for decomposing a system from high level specifications into more elementary levels.

- (i) Abstraction (ii) structured design
(iii) step-wise refinement (iv) Jackson structured programming

_____ is the process of isolating and correcting the causes of known errors.

- (i) Inspection (ii) debugging
(iii) static analysis (iv) walkthroughs

10 _____ comprises the set of tests performed by an individual programmer prior to interaction of the unit into larger system.

- (i) Integration testing (ii) stress testing
(iii) Unit testing (iv) acceptance testing

SECTION - B (25 Marks)Answer **ALL** questions**ALL** questions carry **EQUAL** Marks

(5 x 5 = 25)

11 a Explain how the programmers spend their time during software project assignment.

OR

b Identify the managerial issues during software development.

12 a How do you develop a solution strategy? Explain.

OR '

b Explain about management by objectives.

13 a Explain the Delphi cost estimation techniques.

OR

b Outline the format of software requirement specification.

14 a Discuss about Jackson structures programming.

OR

b Explain the types of cohesion.

15 a Explain about software quality assurance.

OR

b Outline the automated tools for software maintenance.

SECTION -C (40 Marks)Answer **ALL** questions**ALL** questions carry **EQUAL** Marks

(5 x 8 = 40)

16 a Explain the following quality and productivity factors.

(i) Individual Ability (ii) Available Time

(iii) Adequacy of Training (iv) Level of technology

OR

b Categorize the project size and give suitable example.

17 a Identify the various project structure.

OR

b Discuss the phased life-cycle model.

18 a Categorize the factors of software cost.

OR

b Explain the state oriented notations.

19 a Discuss the four design notations.

OR

b Explain the structured coding techniques.

20 a Explain the system testing.

OR

b Discuss the managerial aspects of software maintenance.