

Please check that this question paper contains 09 questions and 02 printed pages within first ten minutes.

[Total No. of Questions: 09]

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Uni. Roll No. ....

Program: B.Tech. (Batch 2018 onward)

Semester: 4<sup>th</sup>

Name of Subject: Software Engineering

Subject Code: PCCS-107

Paper ID: 16217

MORNING  
19 SEP 2022

**Time Allowed: 03 Hours**

**Max. Marks: 60**

**NOTE:**

- 1) Parts A and B are compulsory
- 2) Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
- 3) Any missing data may be assumed appropriately

**Part – A**

**[Marks: 02 each]**

**Q1.**

- a) Define Software Engineering.
- b) List basic requirements for User Interface design.
- c) Summarize problems and causes of Software crisis.
- d) What is Critical Path method?
- e) Discuss role of Manpower management in Software engineering.
- f) Discuss importance of Object oriented Design in Software projects.

**Part – B**

**[Marks: 04 each]**

- Q2.** Explain Cohesion and Coupling? Discuss 4 types of Cohesion and Coupling used in Modular design of Software products.
- Q3.** Illustrate need of Verification and Validation in Software Engineering. Discuss various types of Software Maintenance techniques used during lifetime of Software product.
- Q4.** What is Project Monitoring and control? Discuss role of PERT chart and Gantt chart for Project monitoring.
- Q5.** Evaluate role of Project Planning in Software Engineering? Discuss briefly ant two Cost Estimation techniques.

- Q6. Justify need and importance of Structured Design? Draw context level and 1-level DFD of College management system.
- Q7. Analyze role Code reviews and Coding standards in building Software products.

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**Part – C**

**[Marks: 12 each]**

- Q8. Explain Following:
- a) Reverse Engineering and Forward Engineering
  - b) PSP and Six Sigma

OR

- a) Waterfall Model and Evolutionary Model
- b) RAD Model and Component Based Model

- Q9. Elaborate need and importance of Testing in Software Engineering. Analyze in detail various types of Testing techniques used in Software Testing with example. Also discuss Smoke Testing and Regression Testing.

OR

Assess need and importance of Software requirement Specification document. Prepare SRS document for Library management system highlighting various functional and non- functional requirements. Also discuss role of Feasibility study and Requirements elicitation in preparing SRS.

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