

# AE-825

# COMPUTER SCIENCE

## Paper - II

# Software Engineering

*Time : Three Hours]                      [Maximum Marks : 100*  
*[Minimum Pass Marks : 36*

**Note** : Answer any **five** questions. All questions carry equal marks.

1. Define Software Engineering. Explain the characteristics and applications of Software Engineering.
2. What is Software Development Life Cycle ? Explain prototyping model in detail.
3. Define Software Project Management. Explain cohesion and coupling in detail.

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4. Explain the following :
  - (a) Black-box testing
  - (b) Unified Modeling Language (UML)
  - (c) Cocomo model
5. What is Software Requirement Specification ?  
Explain functional and non-functional requirement in detail.
6. Explain the following :
  - (a) Debugging
  - (b) Software quality
  - (c) Test case design
7. Explain forward and reverse engineering in detail.
8. Explain the issues and techniques of Software maintenance.
9. Explain client-server software development.  
Also explain software reuse.

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**10.** Explain the following :

- (a) Risk management
  - (b) CMMI
  - (c) RAD Model
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