

(Following Paper ID and Roll No. to be filled in your Answer Books)

PAPER ID : MG2

Roll No.

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M. TECH. (Sem.II)

THEORY EXAMINATION 2015-16

PROCESS ENGINEERING

Time : 3 Hours

Total Marks : 100

Note : (i) Attempt questions from each Section as per directions.

(ii) Be very precise in your answers.

1. Attempt any two parts : (2×10=20)

- (a) What do you mean by process engineering? Explain SDLC process in details.
- (b) Explain Spiral model? How does a spiral model represent a process suitable to represent a real time problem?
- (c) What is prototype? Under what circumstances is it beneficial to construct a prototype? Does the construction of prototype always increase the overall cost of software development?

2. Attempt any two parts: (2×10=20)
- (a) What do you mean by Backtracking? Differentiate between activity based models and contextual based models.
 - (b) What do you mean by reengineering? Compare and contrast reengineering and process engineering to study.
 - (c) Define Coupling and Cohesion and its types in details. Also discuss their roles in determining of design.
3. Attempt any two parts : (2×10=20)
- (a) Define Unified Process Model. Explain V model in details with suitable example.
 - (b) What is Top-Down and Bottom-UP testing strategies? Also explain Formal Technical Reviews (FTR).
 - (c) Discuss the Capability Maturity Model and compare it with the ISO 9000 certification giving various distinctive features of each model.
4. Attempt any two parts : (2×10=20)
- (a) What is software quality frame work? Discuss about software quality assurance (SQA).

- (b) Compare between:
- (i) Compare evolutionary prototyping with throwaway prototyping.
 - (ii) Waterfall Model with Spiral Model.
- (c) Distinguish between Process and Methods. Explain why it is not prudent to use the iterative model for developing very large software product?

5. Attempt any two parts : (2×10=20)

- (a) Write the note on Risk Management Process describing the qualitative and quantitative risk assessment.
- (b) Define following terms:
- (i) Six Sigma.
 - (ii) Workflow Modeling.
 - (iii) ITIL.
 - (iv) Incremental Process Models.
- (c) Write the difference between following terms:
- (i) Contextual model and Map model.
 - (ii) Personal Process and Team Process.
