

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

PAPER ID : 2523

Roll No.

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**B. Tech.**

(SEM. VI) THEORY EXAMINATION 2010-11

**SOFTWARE QUALITY ENGINEERING**

Time : 3 Hours

Total Marks : 100

Note :— Attempt ALL questions.

1. Attempt any four parts : (5×4=20)
  - (a) Define software quality with the help of example.
  - (b) Explain following terms :
    - (i) Defects
    - (ii) Faults
    - (iii) Failures.
  - (c) What do you mean by inspection process ? Discuss.
  - (d) Why do we need documents and metrics in Software Quality Engg. ?
  - (e) Define S/W Reliability in brief.
  - (f) Discuss various Software Quality Attributes.
  
2. Attempt any four parts : (5×4=20)
  - (a) Differentiate between Fix quality and Software quality.
  - (b) What is function points ? Write down its importance.
  - (c) What is Phase-Based Defect Removal Pattern ? Explain.

- (d) What is the requirement of customer problem metrics ?  
Discuss.
  - (e) Explain backlog, management index for software quality metrics.
  - (f) Describe various software quality indicators.
3. Attempt any **two** of the following : **(10×2=20)**
- (a) What do you mean by Software Reliability Models ?  
Explain any two models.
  - (b) Discuss Software Quality Assessment Models. Also define criteria for model evaluation.
  - (c) Describe the following :
    - (i) Software Quality Management
    - (ii) Software Re-engineering.
4. Attempt any **two** of the following : **(10×2=20)**
- (a) Discuss about evolution of S/W Quality Assurance. Also define major SQA Activities.
  - (b) Describe the following with suitable example :
    - (i) Quality Improvement Process
    - (ii) Zero defect software.
  - (c) Write short notes on the following :
    - (i) Total Quality Management
    - (ii) Software Quality Standards.
5. Write notes on any **two** of the following : **(10×2=20)**
- (i) Proof of Correctness
  - (ii) Software Testing
  - (iii) S/W Testing Tools.