

Name :

Roll No. :

Invigilator's Signature :

CS/M.Tech-IT(SE)/SEM-1/MSE-103/2009-10

2009

SOFTWARE ENGINEERING

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer any *five* questions.

5 × 14 = 70

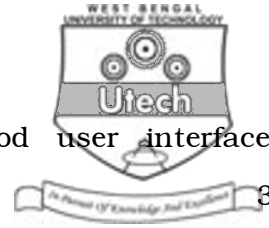
1. a) What are the objectives of testing ? 4

 b) What is cyclomatic complexity ? Explain with the help of
 an example. 5

 c) Explain Intermediate COCOMO model. 5
2. a) Explain the prototype model in detail. 6

 b) Compare the waterfall model and prototype model. 2

 c) What is risk ? Discuss the risk management activities in
 detail. 2 + 4



3. a) Mention the characteristics of good user interface design. 3
- b) What is the difference between GUI and Text base user interface. 2
- c) What is the difference between OOA and OOD ? 2
- d) Explain requirement analysis ? What is PIECES classification. 3 + 4
4. a) What is the difference between coupling and cohesion ? 3
- b) Define module coupling and explain different kinds of coupling in detail ? 6
- c) Explain a design is "GOOD" or "BAD" in terms of coupling and cohesion. 3
- d) What is the need of feasibility study ? 2
5. Write short notes on any *four* of the following : $4 \times 3 \frac{1}{2}$
- a) Documentation
- b) Configuration Management
- c) Software Re-Engineering
- d) Code Inspection
- e) Fact Finding Techniques.



6. Differentiate between the following :

- a) Validation and Verification
- b) Alpha testing and Beta testing
- c) Top-down design and Bottom-up design
- d) Re-Engineering and Reverse Engineering.

7. a) A new project with estimated 400 KLOC, embedded system has to be developed. Project Manager has a choice of hiring from two pools of developers very highly capable with very little experience in the programming language being used or developers of low quality but a lot of experience with the programming language. What is the impact of hiring all developers from one or the other pool ?

5

b) Define the following terms :

$4 \times 1 \frac{1}{2}$

- i) Fault
- ii) Bug
- iii) Mistake
- iv) Failure.

c) What is Software Project Management ?

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