

Roll No.

Subject Code—2056-X

M.C.S. EXAMINATION

(Third Semester)

(Re-appear)

MS-12

SOFTWARE ENGG.

Time : 3 Hours

Maximum Marks : 100

Note : Attempt any *Five* questions. All questions carry equal marks.

1. (a) Describe the role of management in software development with the help of example. 10
(b) Compare the waterfall model and the spiral model of software development. 10
2. (a) What are the various activities during software project planning ? 5

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- (b) Describe COCOMO model in detail. What are the limitations of the cost estimation models. 15
3. (a) Discuss the objective of modular system design. What are the effects of module coupling and cohesion ? 10
- (b) Discuss the various strategies of design. Which design strategy is most popular and practical ? 10
4. (a) What is software failure ? How is it related with a fault ? 10
- (b) Explain the significance of software reliability engineering and discuss the limitations of reliability models. 10
5. (a) What are various kinds of functional testing ? Describe any *one* in detail. 10
- (b) Discuss the limitation of testing. Why do we say that complete testing is impossible ? 10

6. (a) What is structured programming and why is it important ? 10
- (b) Differentiate between object oriented design and function oriented design. 10
7. Differentiate between the following :
- (a) Alpha and beta testing
- (b) Development and regression testing
- (c) Top down approach and bottom up approach
- (d) Coupling and cohesion. $4 \times 5 = 20$
8. Write short notes on the following :
- (a) Halstead's theory
- (b) Function point analysis
- (c) DFD
- (d) Complexity metrics. $4 \times 5 = 20$