

First Semester M. E. (I.T.) Examination

SOFTWARE ENGINEERING METHODOLOGIES

(Elective – I)

Paper – 1 NMEF 5

P. Pages : 2

Time : Three Hours]

[Max. Marks : 80

- Note :** (1) Due credit will be given to neatness and adequate dimensions.
(2) Assume suitable data wherever necessary.
(3) Illustrate your answer wherever necessary with the help of neat sketches.
(4) Use pen of Blue/Black ink/refill only for writing the answer book.

1. (a) Explain rational unified process model with its four phases. 7
- (b) What are the requirement of Engineering process ? Explain. 7

OR

2. (a) Explain component based software engineering process model. 7
 - (b) What do you mean by process iteration ? Explain incremental delivery process model with advantages. 7
3. (a) Explain functional and non-functional requirement with example. 7
 - (b) What is requirement traceability ? Explain its importance. 6

OR

4. (a) Explain what is domain requirement with example. 6
 - (b) What is requirement engineering ? Explain types of requirements. 7
5. (a) What is OCL ? Why it is needed ? What collection types are supported by OCL ? Explain. 7
 - (b) Explain the purpose of reflection, identifies and extension packages in MOF (Meta object facility). 6

OR

6. (a) What is UML meta-model ? Explain the elements of the meta model as a class diagram. 6
(b) What is COBRA ? What are its goals ? Which services are provided by COBRA. 7
7. (a) What is activity diagram ? Explain basic activity diagram notations. 7
(b) What are UML activity diagram controls ? Explain with suitable example. 7

OR

8. (a) Explain purpose of CRC cards ? How identification of analysis classes is performed? Explain. 7
(b) What is actor generation ? Explain actor generation with example. 7
9. (a) List out the various major elements of design model ? Explain each in brief. 7
(b) What is pattern based software design ? Explain need of them. 6

OR

10. (a) Explain abstract data types style in detail. 6
(b) State and explain the key design principles of software architecture. 7
11. (a) Explain characteristics of object oriented design ? State the advantages of object oriented design. 7
(b) What do you mean by lifeline object ? Explain with suitable example. 6

OR

12. (a) What types of coupling between objects is always desirable ? Why ? Explain with proper example. 7
(b) Explain the utilization of boundry class with suitable example. 6

