RUSTAMJI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF INFORMATION TECHNOLOGY

ASSIGNMENT – II

SOFTWARE ENGINEERING AND PROJECT MANAGEMENT

Date of assignment: 27 Mar 2014

Date of submission: 03 Apr 2014

Note:

- Students are asked, not copy from anyone else. For this purpose, a student may be asked to present and explain one or two answers (randomly chosen) during a *Tutorial Class*.
- A student may be asked to name the text books/reference books/Internet Sources, he/she has referred, to solve assignment questions.

1. What are conceptual models?
2. What are design patterns?
3. What are functional and non-functional requirements in software engineering?
4. Can you explain what are sequence, package and collaboration diagrams?
5. How is an activity diagram different from a sequence diagram?
6. What are the characteristics of a good design? Can you name some of design tools?
7. What are focus areas of construction phase of software development? What are different activities involved in construction phase?
8. What are use case and class diagrams in software engineering?
9. What are programming paradigms? Can you name some of them?
10. What do you mean by risk? What are common risks involved in software process?
11. What is data modelling? What is the impact of data modelling in software engineering?
12. What is SRS?
13. What are top-down and bottom-up design methodologies? What are their areas of applications? Give at least three examples of software development problems where these methodologies can be followed for design?
14. Discuss strengths and weaknesses of structural design approach?

15. Create a DFD for accessing a file from a local computer system and creating a copy of it at the same location?
16. “A good design should be independent of programming environment.” Discuss the validity of the statement?
17. Is design at all important for the customer or consumer? Give your views?
18. How is pseudo-code different from flowchart? Describe how a pseudo-code is transformed into its physical implementation?
19. What do you mean by the term ‘model’? What is the focus of using a model?
20. How are procedural modelling, data modelling and object oriented modelling different form each other?
21. DFD is procedural model whereas ERD is a data model. Explain?
22. Explain the phenomenon of interaction between objects in a system through message passing?
23. List major strengths of UML. Can you list some of its limitations?
24. How are the concepts of coupling and cohesion related to software model size?
25. Does ‘refactoring’ mean that you modify the entire design iteratively? If not, what does it mean?