

ALCCS – (OLD SCHEME)

Code: CS44
Time: 3 Hours

Subject: SOFTWARE ENGINEERING
Max. Marks: 100

MARCH 2011

NOTE:

- Question 1 is compulsory and carries 28 marks. Answer any FOUR questions from the rest. Marks are indicated against each question.
- Parts of a question should be answered at the same place.
- All calculations should be up to three places of decimals.

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- Q.1** a. List any two software Myths and explain them in short. (7 × 4)
- b. Draw the diagram of RAD model.
- c. Define cohesion and coupling as applied to software design.
- d. State some advantages of spiral model, over other process models.
- e. What is regression testing? When is this testing used?
- f. Differentiate between software verification and software validation.
- g. Briefly describe any two size-oriented metrics.
- Q.2** a. Bring out the differences between evolutionary and throw-away prototyping. What type of prototyping is recommended for large system development? (10)
- b. Describe any four key challenges facing software engineering. (4)
- c. Suggest the most appropriate generic process model which might be used for the following:
- (i) Automated University Accounting System.
- (ii) An interactive Railway Information System.
- Briefly explain why? (4)
- Q.3** a. Explain what do you understand by functional and non functional requirements. Give suitable examples in each case. (8)
- b. Give the general structure of a software requirement document and briefly explain each section. (10)
- Q.4** a. Develop a set of use-cases that would serve as a basis for understanding the requirements for an ATM system. (6)

- b. Draw a neat diagram to show the process flow for object oriented design. Briefly explain. (6)
- c. What is data modelling? Explain. (6)
- Q.5** a. With suitable example, Explain walkthroughs and inspection with respect to code review process. (8)
- b. Write a brief note on following testing strategies – Unit, Integration, Validation & System Testing. (6)
- c. Discuss any two approaches for debugging software. (4)
- Q.6** a. What do you mean by Heuristic Estimation techniques? Briefly discuss the COCOMO Model of cost estimation. (10)
- b. Why it is essential to use Project Scheduling? Discuss any method of Project Scheduling giving suitable example. (8)
- Q.7** a. Explain Software Re-engineering and Reverse Engineering. (10)
- b. Write a note on CASE tools and their relevance in software engineering. (8)