

ALCCS – OLD SCHEME

Time: 3 Hours

FEBRUARY 2013

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

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.

- Q.1**
- a. What is software engineering? Specify the attributes of good software.
 - b. List the fundamental activities, which are common to all software process.
 - c. What do you mean by separation of concepts in software designing?
 - d. Distinguish between functional and non-functional requirements with examples.
 - e. Differentiate between Software Correctness, Software Robustness and Software Reliability.
 - f. Write short notes on stress testing.
 - g. What are the user interface design principles? What are the components of GUI?(7×4)
- Q.2**
- a. Explain with a neat diagram, the Boehm spiral model of software development process. What are the merits of spiral model? **(10)**
 - b. With a neat diagram explain RAD techniques. **(8)**
- Q.3**
- a. Differentiate debugging from testing. Describe following three debugging techniques – Brute force, back tracking and cause elimination. **(9)**
 - b. Differentiate between any **TWO**:-
 - (i) Top-down integration and bottom-up integration testing.
 - (ii) White box and black box testing.
 - (iii) Equivalence partitioning and boundary value analysis. **(9)**
- Q.4**
- a. What do you mean by requirement elicitation and analysis? What are the problems associated with that? Explain. **(10)**
 - b. Explain reverse engineering process. What do you mean by abstraction level and completeness of a reverse engineering process? **(8)**

Code: CS44

Subject: SOFTWARE ENGINEERING

- Q.5** a. What is Architectural design? Explain the repository model and client – server model, with an example for each. (10)
- b. Describe DFD as structured analysis and UML as object oriented analysis tool giving suitable examples. (8)
- Q.6** a. Explain object – oriented design process in detail. Also show the process flow for this design. (10)
- b. Define verification and validation. Explain two techniques of system checking and analysis. (8)
- Q.7** a. Explain in detail COCOMO model used for software cost estimation. (10)
- b. What are CASE tools? Classify CASE tools based on the function. (8)