

ALCCS – OLD SCHEME

Time: 3 Hours

AUGUST 2012

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.

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- Q.1** a. What are the disadvantages of prototyping?
- b. What is CASE (Computer-Aided Software Engineering)? Briefly explain.
- c. When and how a Decision Table is created?
- d. Define structure chart. Is it same as flow chart?
- e. Why stores are required in DFD?
- f. What are the goals of testing?
- g. Briefly explain the terms Verification & Validation. (7 × 4)
- Q.2** a. Explain the spiral model in detail. Why this model is known as meta-model. (8)
- b. Explain the following statements:
- (i) Software is developed or engineered; It is not manufactured in the classical sense.
- (ii) Software doesn't wear out. (6)
- c. What are the 5 levels of CMM? Briefly explain. (4)
- Q.3** a. What is a DFD? Discuss various components of a DFD. What do you understand by levelling of DFD? (10)
- b. What is Software Requirement Specification (SRS)? What are the characteristics of a good SRS document? (8)
- Q.4** a. How coupling and cohesion are correlated with each other? Explain different types of cohesion. (10)

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- b. State advantages of object oriented design. What are the important features that characterise a good object oriented design? (8)

Q.5 a. Explain Unit, Integration and System testing strategies clearly stating their purpose, differences and dependence. (10)

- b. What is the purpose of Basis Path Testing? Define Independent program path. (8)

Q.6 a. What is software Re-engineering? Discuss various activities involved in software Re-engineering process. (10)

- b. Explain the objectives of CASE tools. Discuss any two CASE tools and their purpose. (8)

Q.7 a. Write notes on any **TWO** of the following:

- (i) COCOMO model
- (ii) Delphi cost estimation
- (iii) Function point metric

(5 × 2)

- b. Draw the project network and determine the critical Path for the following activities (8)

Activity	Predecessor(s)	Duration (days)
A		5
B		6
C	A	3
D	A	8
E	B,C	2
F	B,C	11
G	D	1
H	D,E	12