

2007 PUNJAB TECHNICAL UNIVERSITY MCA

SOFTWARE ENGINEERING (MCA - 402 (N2))

Time : 03 hour

Mark : 60

Instruction to Candidates:

- 1) Attempt any one question from each Section - A,B,C & D.
- 2) Section - E is compulsory

Section – A
(1 * 10 = 10)

- Q1) What are the various parameters which define the quality of software? How it can be measured?
- Q2) Discuss the limitations of software process models. Which according to you is the best model of software development? Justify your answer.

Section - B
(1 * 10 = 10)

- Q3) When is cost estimation done? Discuss the COCOMO model along with the parameters defined in it.
- Q4)
- (a) What is the need of software planning? Explain the objectives of software planning.
 - (b) What are principles of structured analysis?

Section - C
(1 * 10 = 10)

- Q5) Discuss object oriented concepts in details.

Q6)

- (a) What are the various design methodologies?
- (b) What does abstraction in software design provide?

Section - D

(1 * 10 = 10)

Q7) Differentiate between the following.

- (a) Unit Testing and Integration Testing.
- (b) White Box Testing and Black Box Testing.

Q8) Why is testing a necessary phase of software development? Discuss the relevance of various types of testing.

Section - E

(10 * 2 = 20)

Q9)

- a) Why is there a need for statistical quality assurance?
- b) What is the need for design methodologies?
- c) Define the term Internal documentation.
- d) What are evolutionary process model users?
- e) What is the purpose of DFD?
- f) What is the role of metrics in software development?
- g) List some software design objectives?
- h) What is software equation?
- i) What is the use of linear process models?
- j) Define Prototyping.