

Punjab Technical University M.C.A Computer Applications

SOFTWARE ENGINEERING (MCA - 402 (N2))

MCA (Sem.-3rd)

Time : 03 Hours
Maximum Marks : 60

Paper ID [MC402]

(Please fill this paper ID in OMR sheet)

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

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