END SEMESTER EXAMINATION, 2020
Semester: 6th
Subject code: CO-603
Subject: Software Engineering
Full marks : (part A – 25 + part B- 45)
Duration : 3 hours

ALL QUESTIONS OF PART-A ARE COMPULSORY

ANSWER ANY FIVE QUESTIONS FROM PART-B

Part A- 25 MARKS

1. Fill in the blanks. $10 \times 1 = 10$

a) COCOMO stands for .....
b) ..... is the simplest model of software development paradigm.
c) In Prototyping model , the next phase after Quick design is ..... .
d) In function point Metric, the value of TCF can vary from ..... to .....
e) The ..... is the final outcome of the requirement analysis and specification phase.
f) Code Inspection and Code ..... are the two types of Code Reviews.
g) Boundary Value Analysis is an approach under .....Testing.
h) In Software Reliability Metrics, the term MTTF stands for .....
i) ..... testing is done by the customer himself.
j) ..... model is also known as meta model.

2. State TRUE or FALSE. $10 \times 1 = 10$

a) The exact number of phases in spiral model through which the product is developed is fixed.
b) The chief programmer team is subject to single point failure.
c) ISO 9000 is a guideline for setting up a quality system.
d) Unit testing of different modules of a program are carried out during the testing phase.
e) In white box testing no knowledge of design or code is required.
f) Cohesion is a measure of the functional strength of a module.
g) The degree of coupling between two modules does not depend on their interface complexity.
h) A good specification should be unambiguous.
i) In democratic team structure , the team members may waste a lot times arguing about trivial points.
j) In LOC, while counting the source instructions , commenting lines are not ignored.

3 . Select the correct answer. $5 \times 1 = 5$

a) Which of the following life cycle model lacks iterative product development.

i) Spiral model
ii) Prototyping model.
iii) Classical waterfall model
iv) Evolutionary model.

b) Which of the following is not a project planning activity.

i) Testing
ii) Scheduling
iii) staffing
iv) estimation.

c) In the classification of cohesion, ... is not a class of cohesion.

i) Logical

ii) content

iii) Temporal

iv) Functional

d) A ..... DFD is also known as context diagram.

i) level 3

ii) level 2

iii) level 1

iv) level 0

e) The full form of PERT is .....

i) Project Evaluation and Review Technique.

ii) Program Evaluation and Review Technique

iii) Project Estimation and Review Technique

iv) Project Evaluation and Repeat Technique

Part B – 45 marks

4. a) What do you mean by software crisis ? How software engineering can contribute to reduce that crisis ? 2+3=5

b) What is feasibility study ? what are the different feasibility studies that need to be conducted ? . 2+2= 4

5 a) What are the qualities of a project manager. Explain. 5

b) Assume that the size of an organic type software product has been estimated to be 40,000 lines of source codes. Assume that the average salary of software developers is Rs. 20,000 PM. Determine the effort, Nominal development time and Cost required to develop the product. 4

6 a) Write about Black box and White Box testing. 4

b) Briefly explain about the three different stages of COCOMO. 5

7 a) Differentiate between PERT and GANTT chart. 4

b) State the activities incorporated in a SQA plan. 5

8 a) Describe the various reliability metrics. 5

b) Define the term context diagram. Explain the various levels of DFDs. 4

9. a) Explain about the various Team Structure that addresses the issues of a software organisation. 5

b) Explain the various phases of spiral model. 4

10. Define cohesion and coupling. Explain the different types of cohesion and coupling. 2+ 7 =9

11) Explain the various phases of Classical waterfall model with a neat diagram. 9

12)Explain about risk management . Also write about risk assessment and risk containment. 3+6=9