53 (IT 605) SWEN

2017

SOFTWARE ENGINEERING

Paper : IT 605

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

Section–A (10×1=10 Marks)

1. Which level of CMM is for process control ?

   (a) Initial

   (b) Repeatable

   (c) Defined

   (d) Optimizing.

2. In the Analysis phase, the development of the _____ occurs, which is a clear statement of the goals and objectives of the project.

(a) Documentation

(b) flowchart

(c) Program specification

(d) design.

3. Which one is not a strategy for design ?

(a) bottom-up design

(b) top-down design

(c) embedded design

(d) hybrid design.

4. The most desirable form of cohesion is

(a) logical cohesion

(b) procedural cohesion

(c) functional cohesion

(d) temporal cohesion.

5. The worst type of coupling is

(a) control coupling

(b) data coupling

(c) common coupling

(d) content coupling.

6. Temporal cohesion means

(a) cohesion between temporal variables

(b) cohesion between local variables

(c) cohesion with respect to time

(d) coincidental cohesion.

7. Integration testing techniques are

(a) Top down

(b) Bottom up

(c) Sandwich

(d) All of the above.

8. Which one is not the verification activity?

(a) Reviews

(b) Path testing

(c) Walk through

(d) Acceptance testing.

9. A break in the working of a system is called

(a) Defect

(b) Failure

(c) Fault

(d) Error.

10. Data flow testing is related to

(a) Data flow diagrams

(b) E-R diagrams

(c) Data dictionaries

(d) none of the above.

Section–B (10×2=20 Marks)

*(Answer **any ten** questions)*

1. Define these terms : Branch Coverage, Statement Coverage.

2. Write down inspection pre-conditions.

3. What is the software testing objective ? Also define a successful test.

4. Discuss the common mistakes in DFD.

5. What are software project estimation techniques available ?

6. How can we derive the size of software product ?

7. Mention some software analysis and design tools.

8. Differentiate validation and verification.

9. What are various types of software maintenance ?

10. What is software metric ?

11. What problem arises if two modules a coupled ?

Section–C (10×5=50 Marks)

*(Answer **any ten** questions)*

1. Write down the textual analysis ap to design the classes and objects for oriented modeling.

2. Draw a system sequence diagram examination system of the CIT Kok

3. Explain the main differences be software testing through Black box White box and software inspection o through.

4. Who is called as the stakeholder ? *least four* examples.

5. Differentiate Capability Maturity Integration (CMMI) and ISO 9001 : 2

6. Elaborate the role of verificatio validation in software engineering wit reasoning.

7. Discuss in detail the classification of the COCOMO model.

8. What are activities involved in project planning, discuss ?

9. Describe the difference between risk components and risk drivers in your own words.

10. Discuss the client-server architecture with all types of possibilities.

11. Describe version control and change control mechanism in your words.

Section–D (8+12=20 Marks)

1. Draw the use case diagram and collaborative diagram of your assigned project. 4+4

2. Write the *three* complete transactions sequence with system sequence diagrams of your assigned project. 4+4+4