

DipLETE – CS (Current Scheme)

Time: 3 Hours

JUNE 2015

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE: There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following: (2×10)

- a. Waterfall model is not suitable for
 - (A) Small projects
 - (B) Accommodating changes
 - (C) Complex projects
 - (D) None of these
- b. Which one is the most important feature of spiral model?
 - (A) Quality management
 - (B) Risk management
 - (C) Performance management
 - (D) Efficiency management
- c. QFD in requirement engineering stands for
 - (A) Quality function design
 - (B) Quality factor design
 - (C) Quality function development
 - (D) Quality function deployment
- d. Level-0 DFD is similar to
 - (A) Use case diagram
 - (B) Context diagram
 - (C) System diagram
 - (D) None of these
- e. Which is not a good characteristic of a good SRS?
 - (A) Correct
 - (B) Complete
 - (C) Consistent
 - (D) brief
- f. RAD stands for
 - (A) Rapid application development
 - (B) Relative application development
 - (C) Ready application development
 - (D) None of the above
- g. The module in which instructions are related through flow of control is
 - (A) Temporal cohesion
 - (B) Logical cohesion
 - (C) Procedural cohesion
 - (D) Functional cohesion
- h. ____ deals with permitting or restricting a client class' ability to modify the attributes or invoke the methods of the class or object of concern.
 - (A) Encapsulation
 - (B) Polymorphism
 - (C) Inheritance
 - (D) None of these

Code: DC65**Subject: SOFTWARE ENGINEERING**

- i. Regression testing is primarily related to
(A) Functional testing (B) Data flow testing
(C) Development testing (D) Maintenance testing
- j. Perfective maintenance refers to enhancements
(A) Making the product better
(B) Making the product faster and smaller
(C) Making the product with new functionalities
(D) All of the above

Answer any FIVE Questions out of EIGHT Questions.
Each question carries 16 marks

- Q.2** a. What is the role of software engineering? (4)
b. Explain the waterfall model in detail. In what kind of projects this model is applicable? (12)
- Q.3** a. What is requirement elicitation? (2)
b. Explain different symbols used for DFD. (4)
c. There is need to automate student result management system of an institute. Draw context diagram for this system and give the explanation. (10)
- Q.4** a. What is the need of a software prototype? (2)
b. What are the features of Agile model? (4)
c. Discuss in detail RAD model for software development. (10)
- Q.5** a. What is module cohesion? Explain its types. (10)
b. What should be a good strategy for designing a software? (6)
- Q.6** a. What are the steps to analyze and design an object oriented system? Explain its features. (12)
b. Discuss polymorphism and encapsulation in object oriented design. (4)
- Q.7** a. What are design guidelines for component based design? Explain briefly. (8)
b. Mention the design issues in user interface design. (8)
- Q.8** a. What is the difference between verification and validation? (4)
b. Compare static and dynamic testing. (4)
c. What is black box testing? Explain boundary value analysis method for testing. (8)
- Q.9** a. Explain the change control process as a part of software configuration management. (8)
b. What is the difference between quality control and quality assurance? (2)
c. Explain the process of FPA metric to calculate the size of software. (6)