

DiplETE – CS (Current & New Scheme)

Time: 3 Hours

JUNE 2016

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)

- RAD stands for
 - Relative Application Development
 - Rapid Application Development
 - Rapid Application Document
 - Rapid Application Design
- SDLC stands for
 - Software Development Life Cycle
 - System Development Life cycle
 - Software Design Life Cycle
 - System Design Life Cycle
- Which of the following life cycle model can be chosen if the development team has less experience on similar projects?
 - Spiral
 - Waterfall
 - RAD
 - Iterative Enhancement Model
- Which one of the following is not a step of requirement engineering?
 - elicitation
 - design
 - analysis
 - documentation
- Which of the following term describes testing?
 - Finding broken code
 - Evaluating deliverable to find errors
 - A stage of all projects
 - None of these
- What is Cyclomatic complexity?
 - Black box testing
 - White box testing
 - Yellow box testing
 - Green box testing
- What are the various Testing Levels?
 - Unit Testing
 - System Testing
 - Integration Testing
 - All of these

Code: DC65/DC115

Subject: SOFTWARE ENGINEERING

- h. The open source movement has meant that there is a huge reusable code base available at
 (A) free of cost (B) low cost
 (C) high cost (D) short period of time
- i. Which is the first step in the software development life cycle?
 (A) Analysis
 (B) Design
 (C) Problem/Opportunity Identification
 (D) Development and Documentation
- j. Which tool is used for structured designing?
 (A) Program flowchart (B) Structure chart
 (C) Data-flow diagram (D) Module

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

- Q.2** a. What are Socio-Technical Systems? (4)
 b. Discuss the Spiral model in detail with its advantages, disadvantages and when to use it? (12)
- Q.3** a. What is project management? (2)
 b. What is structured analysis? (4)
 c. Explain the risk management process with diagram. (10)
- Q.4** a. What is functional requirement? (2)
 b. Discuss the non-functional requirements and its type. (6)
 c. Explain the Software Requirements Document by suitable example. (8)
- Q.5** a. Discuss context model and behavioural model. (8)
 b. What is object model? Explain with suitable example. (8)
- Q.6** a. Discuss agile methods and its applications in software engineering. (10)
 b. What is rapid application development? (6)
- Q.7** a. Discuss the approaches component-based software engineering. (8)
 b. What is user interface design? (8)
- Q.8** a. What is software testing? (4)
 b. Explain component testing? (4)
 c. Differentiate between black box testing and white box testing. (8)
- Q.9** a. Explain the importance of quality assurance and standards in software testing? (8)
 b. What is software metrics? (2)
 c. Explain configuration management and its applications (6)