

DipLETE – CS (Current Scheme)

Time: 3 Hours

DECEMBER 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)

- What is Software ?
(A) Set of computer programs, procedures and possibly associated document concerned with the operation of data processing.
(B) A set of compiler instructions
(C) A mathematical formula
(D) None of these
- Which of the following is not a product matrix ?
(A) Size (B) Reliability
(C) Productivity (D) Functionality
- Management of software development is dependent upon ?
(A) People (B) Product
(C) Process (D) All of these
- Which is not a software life cycle model?
(A) Spiral Model (B) Waterfall Model
(C) Prototyping Model (D) Capability maturity Model
- Which of the following comments about object oriented design of software, is not true ?
(A) Objects inherit the properties of class
(B) Classes are defined based on the attributes of objects
(C) an object can belong to two classes
(D) classes are always different
- White box testing, a software testing technique is sometimes called ?
(A) Basic path (B) Graph Testing
(C) Dataflow (D) Glass box testing
- Structured programming codes do not include:
(A) sequencing (B) alteration
(C) iteration (D) multiple exit from loops

Code: DC65

Subject: SOFTWARE ENGINEERING

- h. In risk analysis of spiral model, which of the following risk is included?
 (A) Technical (B) Management
 (C) Both (A) and (B) (D) None of these
- i. Project indicator enables a software project manager to ?
 (A) assess the status of an ongoing project
 (B) track potential risks
 (C) uncover problem areas before they " go critical "
 (D) All of these
- j. Once object oriented programming has been accomplished, unit testing is applied for each class. Class tests include:
 (A) Fault based testing (B) Random testing
 (C) Partition testing (D) All of these

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

- Q.2** a. Explain characteristics of software. (4)
 b. Explain the spiral model in detail. (6)
 c. What is the process of Risk Management? (6)
- Q.3** a. Explain functional and nonfunctional requirement. (8)
 b. Explain data dictionary. (4)
 c. What is the role of system analyst? (4)
- Q.4** a. What is software prototyping? What are its benefits? (6)
 b. Explain in details RAD model. (10)
- Q.5** a. Explain client server architecture. (10)
 b. What is coupling? Explain its types. (6)
- Q.6** a. Explain inheritance and polymorphism in object oriented design. (8)
 b. Explain design pattern and application system reuse for software use. (8)
- Q.7** a. Explain user interface design process in detail. (8)
 b. Explain CBSE process (8)
- Q.8** a. What is white box testing? Explain Basis path testing. (10)
 b. Explain following testing methods: (3×2)
 (i) Alpha and Beta testing.
 (ii) Stress testing.
- Q.9** a. Explain function of SCM. (6)
 b. Write short notes on: (5×2)
 (i) SQA.
 (ii) COCOMO model.