DiplETE – CS (OLD SCHEME)

Code: DC15   Subject: SOFTWARE ENGINEERING
Time: 3 Hours   Max. Marks: 100

JUNE 2011

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. PERT chart is used in activities:-

   (A) project development   **(B)** project planning
   (C) Project scheduling   **(D)** project cost estimation

   b. Which term is applicable to function abstraction?

   (A) Requirement specification **(B)** Coupling
   (C) Project planning   **(D)** Encapsulation

   c. Basis path testing is a technique for

   (A) control structure   **(B)** program structure
   (C) design structure   **(D)** data structure

   d. CASE stands for

   (A) Computer Assisted System for Engineers
   (B) Computer Aided Software Engineering
   (C) Computer Application System Engineer
   (D) Computer Aids for System Engineer

   e. Coupling is related to

   (A) project planning   **(B)** requirement specification
   (C) systems design   **(D)** systems maintenance

   f. COCOMO model was proposed by

   (A) Putnam   **(B)** Boehm
   (C) Booch   **(D)** Beizer

g. Modifying the software for ever charging environment

   (A) Adaptive maintenance   **(B)** Corrective maintenance
   (C) Perfective maintenance   **(D)** Preventive maintenance

h. PDL stands for

   (A) Program Design Language   **(B)** Process Description Language
   (C) Program Definition Language **(D)** Process Design Language

i. Coding phase begins immediately after

   (A) Requirement analysis   **(B)** Software design phase
   (C) Project planning phase **(D)** Prototyping process

j. Which of the following statements is NOT true about object oriented design?

   (A) It requires vaulting between phases.
   (B) It is at a higher level of abstraction.
   (C) It supports good programming techniques.
   (D) It promotes reuse.

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

Q.2 a. Explain spiral model briefly.   **(8)**

   b. Describe the management myths and practitioners myth about software.   **(8)**

Q.3 a. Explain the mechanics of structured analysis.   **(8)**

   b. What are the information need by the analyst? Explain feasibility study of
       the project.   **(8)**

Q.4 a. Explain in detail the COCOMO model.   **(10)**

   b. Write the minimum set of guidelines for formal technical reviews.   **(6)**

Q.5 a. Explain software procedural design notations briefly.   **(8)**

   b. Differentiate between dynamic modelling and functional modelling.   **(8)**

Q.6 a. What is Information Hiding?   **(4)**

   b. Explain top-down and bottom up programming practice briefly.   **(4)**

   c. What is Unit Testing? Explain with the help of an example.   **(8)**

Q.7 a. What is testing and its objectives? Explain white box testing. **(8)**

b. Explain the three categories of debugging approaches briefly. **(8)**

Q.8 a. Explain the maintenance side effects briefly. **(8)**

b. Describe Quick fix model. What are the advantages and disadvantages of this model? **(8)**

Q.9 a. What is reverse engineering? Explain the different reasons of reverse engineering. **(8)**

b. Define Cohesion. Describe the seven forms of Cohesion. **(8)**