Code: DC65   Subject: SOFTWARE ENGINEERING

DipIETE – CS (NEW SCHEME)

Time: 3 Hours   **JUNE 2012**   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. Product is

   (A) deliverables
   (B) user expectations
   (C) organisation's effort in development
   (D) none of these

b. Which is not a process metric?

   (A) productivity   **(B)** functionality
   (C) quality   **(D)** efficiency

c. Management of software development is dependent on

   (A) people   **(B)** product
   (C) process   **(D)** all of these

d. Software engineering approach is used to achieve:

   (A) better performance of hardware   **(B)** error free software
   (C) reusable software   **(D)** quality software product

e. Project risk factor is considered in

   (A) waterfall model   **(B)** prototyping model
   (C) spiral model   **(D)** iterative enhancement model

f. RAD stands for

   (A) Rapid Application Development   **(B)** Relative Application Development
   (C) Ready Application Development   **(D)** Repeated Application Development

g. SRS document is for

(A) "what of a system"?   **(B)** How to design the system
(C) costing and scheduling of system **(D)** system's requirement

h. Outcome of requirement specification phase is

(A) design document   **(B)** software requirement specification
(C) test document   **(D)** none of these

i. Context diagram explains

(A) the overview of the system   **(B)** the interview view of the system
(C) the entities of the system   **(D)** the process view of the system

j. A system that does not interact with external environment is called

(A) closed system   **(B)** logical system
(C) open system   **(D)** hierarchical system

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

Q.2 a. Define software engineering. How a program is different from software?   **(8)**

   b. What is software life cycle? Discuss any software process model.   **(8)**

Q.3 a. Justify the statement "Requirement analysis is a very important activity after elicitation". Show its steps with a block diagram.   **(8)**

   b. Write all the four steps of requirement analysis.   **(8)**

Q.4 a. Explain why the rapid delivery and development of new systems is often more important to business than the detailed functionality of these systems.   **(8)**

   b. Write about the Agile approach as a basic strategy for developing software. **(8)**

Q.5 a. What do you mean by modularity in software design? Write about desirable properties in a modular system.   **(8)**

   b. Discuss various types of module coupling.   **(8)**

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Q.6 a. Differentiate between object oriented analysis and object oriented design. **(8)**

b. What are the major technical and non-technical factors that hinder software reuse? Do you reuse much software and if not, why? **(8)**

Q.7 a. Discuss in detail the User interface Prototyping with respect to user interface design. **(8)**

b. What is meant by a component and a component model? What are all the principal activities involved in CBSE process? **(8)**

Q.8 a. Prepare a list of items which can be used to frame a sample checklist to verify any software. **(8)**

b. Give details of component testing of a software. **(8)**

Q.9 a**.** Define Configuration management and Enumerate the various activities of configuration management. **(8)**

b. Write short notes:–

(i) Software versions control
(ii) Change control management **(2×4)**

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