ROLL NO. _____

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)**

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)**