

Code: DC15
Time: 3 Hours

Subject: SOFTWARE ENGINEERING
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:-

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

b. Which term is applicable to function abstraction?

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

c. Basis path testing is a technique for

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|-----------------------|-----------------------|
| (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

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

f. COCOMO model was proposed by

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|------------|------------|
| (A) Putnam | (B) Boehm |
| (C) Booch | (D) Beizer |

- g. Modifying the software for ever changing 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.
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)