END TERM EXAMINATION

FOURTH SEMESTER [BCA] MAY-2014

Paper Code: BCA-208	Subject: Software Engineering (2011 Onwards)

Time: 3 Hours   **Maximum Marks: 75**

> **Note: Attempt any five question, including Q.no.1 which is compulsory. Select one question from each Unit. Calculator is allowed.**

Q1   Answer the following questions:-   **(10x2.5=25)**
(a) What is software crisis?
(b) Explain the term 'requirement' in reference to software development.
(c) Why is software development required to be managed?
(d) Discuss the importance of system analysis in brief.
(e) What is a module?
(f) Define software design.
(g) What is the basic need of measurement in software development?
(h) What is risk mitigation?
(i) Define software testing?
(j) How does cost estimation help?

Unit-I

Q2   What is software life cycle? Explain software life cycle model. Write down merits and demerits of various types of software life cycle models.   **(12.5)**

Q3   (a) Explain the procedure of drawing a DFD for a software system.   **(5)**
(b) How is an SRS organized? Discuss various characteristics of a typical SRS.   **(7.5)**

Unit-II

Q4   (a) Who are the major state holders in a software development project? Discuss the role of each.   **(6)**
(b) Explain the activities that are undertaken during any typical software project planning.   **(6.5)**

Q5   (a) Explain all the five functional units used in FPA.   **(5)**
(b) Discuss COCOMO model in detail.   **(7.5)**

Unit-III

Q6   Define module coupling and module cohesion. Explain their different types giving examples.   **(12.5)**

Q7   Discuss the following:-   **(5x2.5=12.5)**
(a) Live Variables   (b) Variable Spam   (c) Program Weakness
(d) Data structure metric   (e) Token Count

Unit-IV

Q8   (a) Explain software testing, test case and test suite with the help of examples. **(6)**
(b) Discuss path testing with the help of suitable illustrations.   **(6.5)**

Q9   (a) Discuss the role of graph metrics with the help of some suitable example.   **(6)**
(b) What is software maintenance? Discuss various categories of it.   **(6.5)**
Also write down the problems faced during the software maintenance.

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