END TERM EXAMINATION

FOURTH SEMESTER [BCA] MAY-JUNE 2016

Paper Code: BCA-208	**Subject: Software Engineering**
Time : 3 Hours	**Maximum Marks :75**

Note: Attempt any five questions including Q.No.1 which is compulsory. Select one question from each unit.

Q1   Answer the following: **(2.5x10=25)**
- (a)   Explain software crisis.
- (b)   What is a requirement? What is Requirement Engineering?
- (c)   What is a context diagram?
- (d)   Define risk.
- (e)   Why are metrics required in software engineering?
- (f)   Explain why are the scaling factors used in the early Design Model of COCOMO?
- (g)   Discuss the role of coupling in modules.
- (h)   What is the meaning of debugging?
- (i)   Differentiate between Alpha and beta testing.
- (j)   What is software maintenance?

UNIT-I

Q2   Discuss evolutionary and spiral software development life cycle models explicitly highlighting their merits and demerits.   **(12.5)**

Q3   Explain requirements elicitation techniques FAST and QFD in detail. **(12.5)**

UNIT-II

Q4   What are ER diagrams used for? Explain various concepts and steps used in the creation of an ER diagram for an information system.   **(12.5)**

Q5   Draw level '0', level '1' and level '2' data flow diagrams for the Library management Information System.   **(12.5)**

UNIT-III

Q6   What is a software module? What are the advantages of modular softwares? Discuss various types of cohesions that exist in software modules.   **(12.5)**

Q7   (a) What is software measurement? Define the term 'software metric'. Highlight various parameters that need to be measured during the software development process.   **(6.0)**
     (b) Explain Halstead Software Science Measures.   **(6.5)**

UNIT-IV

Q8   Take an example program in 'C' for printing out the greatest of the 3 integers that are input by the user. Show all its 'du' paths as well as those 'du' paths that are not 'dc' paths.   **(12.5)**

Q9   (a) What is software maintenance? Explain its various types.   **(7.5)**
     (b) Explain software configuration. What is its significance?   **(5.0)**

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