(Please write your Exam Roll No.) *Exam Roll No. .....*

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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