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

END TERM EXAMINATION

MCA EXAM, MAY -2011

Paper Code : MCA-110 ***Subject : Software Engineering***

Paper Id : 44110

Time : 3 Hours

Note :Part –I is compulsaory.Attempt any One question from other Parts(II-V)

PART-I **(2 X 10 =20)**

Q1. Attempt any **Ten** questions. Each question carries equal marks.

(a) What do you mean by software crises?
(b) What is DFD?
(c) What is alpha and beta test?
(d) State the reason why software requirements elicitation is difficult.
(e) Explain control coupling.
(f) Differentiate dynamic model and functional models.
(g) What is the purpose of RAD model?
(h) What does abstraction in software design provides?
(i) Explain CASE tools.
(j) Write shortcomings of waterfall model?
(k) Explain Software Reengineering.
(l) Write the main objectives of Reverse Engineering

PART-II **(2 X 5 =10)**

Q2. (a) Explain spiral model and give the situation in which spiral model is beneficial?

(b) What are the linkages between DFD and ER diagrams?

OR

Q3. (a) Compare waterfall and spiral model of software life cycle.

(b) What do you mean by the term data dictionary in context of structured analysis?

PART-III **(2 X 5 =10)**

Q4. (a) What is risk? Is it economical to do risk management? What is the effect of this activity on the overall cost of the project?

(b) How do Object –Oriented Design (OOD) and structured designs differ? What aspects of these two design methods are the same?

OR

Q5. (a) Explain Putnam resource allocation model.

(b) What are the risk management activities? Explain.

PART-IV **(2 X 5 =10)**

Q6. (a) How can metrics be helpful in software process improvement? Explain.

(b) What is ISO? What is the need for obtaining ISO 9000 certification or why is it important for a software development organization to obtain ISO 9001 certificate?

OR

Q7. (a) What are software metrics? Discuss Halstead software science metrics along with its Limitations?

(b) Write down the salient features of ISO 9001 certification.

PART-V **(2 X 5 =10)**

Q8. (a) What is cyclomatic complexity? Is it reasonable to define "thresholds" for software modules? If V (G) <=10, what will happen to the module?

(b) Explain various categories of maintenance. Which category consumes maximum time and Why?

OR

Q9. (a) What is the difference between functional and structural testing? Explain any two functional testing techniques.

(b) How is iterative enhancement model helpful during maintenance? Explain the various cycles of this model.