Printed Pages : 3 MCA504

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1442 Roll No.

M.C.A

(SEM V) ODD SEMESTER THEORY EXAMINATION 2009-10

SOFTWARE ENGINEERING

Time : 3 Hours] *[Total Marks : 100*

Note : *(1) Attempt **all** questions.*

*(2) **Each** question carries **equal** marks.*

1 Attempt any **four** of the following : **5×4=20**

(a) Suggest some ways to detect software errors in the early phases of the project when code is not yet available.

(b) List the various characteristics of software.

(c) What do you mean by software crisis? Give some examples of software crisis and suggest the solution also.

(d) Describe the various phases of Software Development Life Cycle (SDLC) in brief.

(e) List the various attributes or qualities of a good System Analyst.

(f) Define and explain software engineering.

2 Attempt any **four** of the following : **5×4=20**

(a) Differentiate between Water Fall Model and Prototyping.

(b) What do you mean by Feasibility Study? Discuss the various feasibilities in detail.

(c) Differentiate between coupling and cohesion.

(d) What do you mean by component-level design? Illustrate Fourth Generation Techniques also.

(e) Describe Role of metrics and measurement in Software Engineering.

(f) Differentiate between functional and object oriented approach of software design.

3 Attempt any **two** of the following : **10×2=20**

(a) What do you mean by structured approach of design? Describe top-down and bottom-up design alongwith their advantages and disadvantages.

(b) Differentiate between validation and verification. Describe Alpha and Beta testing along with their advantages and disadvantages.

(c) Write short notes on the following :

(i) Software Configuration Management

(ii) Quality assurance.

4 Attempt any **two** of the following : **10×2=20**

(a) Describe COCOMO-II model in detail. Illustrate the Black Box and White Box testing also.

(b) What do you mean by Reliability Matrics? Illustrate reliability growth models in detail.

(c) Write short notes on following :

(i) Risk Management

(ii) Project Monitoring

5 Attempt any **two** of the following : **10×2=20**

(a) Define Reverse Engineering. Describe the various steps of Reverse Engineering process in detail.

(b) Draw the architectural diagram of CASF tool and explain its various components in detail.

(c) Illustrate SEI-Capability Maturity Model (CMM) in detail. Give five differences between ISO 9000 and CMM.