13.704 SOFTWARE ENGINEERING AND PROJECT MANAGEMENT (R)

MODEL QUESTION (2013 scheme)

Time: 3 hours   Max marks: 100

PART A(Answer All Questions)   (5 X 4 marks=20 marks)

1. In waterfall life cycle model, a working version of the system is not seen until late in the project's life cycle. Suggest another life cycle model to solve the problem and give its working.

2. Software Engineering is a layered technology. Explain.

3. Give the properties of a modular system.

4. Write short notes on alpha and beta testing.

5. Adding people to a late software project can make it later. Why is it so?

PART B

(Answer one FULL question from each module)   (4 X 20 marks=80 marks)

MODULE I

6. a) What is Capability Maturity Model? Explain the various levels of Capability Maturity Model.   (10 marks)

6. b) Explain the spiral model of software life cycle with a neat labeled diagram. (10 marks)

OR

7. a) Expalin the various phases of Waterfall life cycle model.   (10 marks)

7. b) Explain the following clauses in ISO 9001:

   (i)   Inspection & Testing   (ii) Control of non-conforming product

   (iii) Corrective action   (iv) Training

   (v) Design control   (5X2=10 marks)

MODULE II

8. a) Explain the Constructive Cost Model (COCOMO).   (10 marks)

8. b) Explain (i) Single variable model

              (ii) Various steps in project planning phase   (2X5=10 marks)

<div align="center">OR</div>

9. a) Explain any two software size estimation techniques.   (10 marks)

9. b) Explain module coupling and module cohesion used in software design. (10 marks)

<div align="center">MODULE III</div>

10. a) Explain the various software risks. How does staff turn over problem affect software

    project?   (10 marks)

10. b) Explain the various stages in risk management. Is it possible to prioritize risks?

        (10 marks)

<div align="center">OR</div>

11. a) Expalin the various techniques for control structure testing.   (10 marks)

11. b) Explain Basis path testing.   (10 marks)

<div align="center">MODULE IV</div>

12..a) How do you compute Task Set Selector (TSS) value for a project? How is TSS used

    to select the appropriate task set for a project.   (10 marks)

12. b) Explain the four degrees of rigor, with which the software process is applied for

    projects.   (10 marks)

<div align="center">OR</div>

13. a) Explain the rules for designing an effective User Interface.   (10 marks)

13. b) Expalin the following CASE tools: (5X2=10 marks)

   (i)   SCM tools   (ii) Documentation tools

   (iii) Integration & Testing tools   (iv) Static Analysis tools

   (v) Reengineering tools