

Roll No. ....

Total No. of Questions : 13]

[Total No. of Pages : 02

**J-3599[S-1455]**

**[2037]**

**M.Sc. (BI) (Semester - 3<sup>rd</sup>)**

**SOFTWARE ENGINEERING (M.Sc. (BI) - 303)**

**Time : 03 Hours**

**Maximum Marks : 75**

**Instruction to Candidates:**

- 1) Section - A is **compulsory**.
- 2) Attempt any **Nine** questions from Section - B.

**Section - A**

**Q1)**

**(15 × 2 = 30)**

- a) What do you mean by the term software?
- b) What is a product metric?
- c) In what terms effort is measured?
- d) What is software crisis? Was Y2K a software crisis?
- e) What do you mean by productivity?
- f) What is difference between a module and software component?
- g) What do you mean by SRS?
- h) What is RAD?
- i) What is the significance of an ER diagram?
- j) What is the significance of level-O DFD?
- k) What is importance of requirements?
- l) What are use cases?
- m) Write any two software size estimation techniques.
- n) On which approach COCOMO - II estimation model is based?
- o) What do you mean by modularity?

**P.T.O.**

## Section - B

(9 × 5 = 45)

- Q2)** What is software engineering? Is it an art, craft or a science? Discuss.
- Q3)** What is software metric? How is it different from software measurement?
- Q4)** What is more important : Product or process? Justify your answer.
- Q5)** What is software life cycle? Discuss the generic waterfall model.
- Q6)** What are the advantages of developing the prototype of a system?
- Q7)** Draw the ER diagram for a hotel reception desk management.
- Q8)** State the model of a data dictionary and its contents. What are its advantages?
- Q9)** What are size metrics? How is function point metric advantageous over LOC metric? Explain.
- Q10)** Discuss typical software risks. How staff turnover problem affects software projects?
- Q11)** Define module cohesion and explain various types of cohesion.
- Q12)** What are various categories of software metrics? Discuss with the help of suitable examples.
- Q13)** What is software testing? Discuss the role of software testing during software life cycle and why is it so difficult?

