Total number of printed pages – 4     **B. Tech**

**BCSE 3402**

# Eighth Semester Examination – 2008

## SOFTWARE ENGINEERING

**Full Marks – 70**

**Time : 3 Hours**

*Answer Question No. **1** which is compulsory*
*and any **five** from the rest.*

*The figures in the right-hand margin*
*indicate marks.*

1.  Answer the following questions :     2×10

    (a)  What is the use of case diagram in Software Design ?

    (b)  What are the prominent qualities of System Design with OO method ?

    (c)  Mention the activities involved in Object Oriented Analysis.

    (d)  Define Analysis and synthesis in the context of software engineering.

    (e)  How can one measure software reliability?

    (f)  Which are the 7 standard Software Quality Characteristics ?

    (g)  What is the new COCOMO-II formula for calculating project effort ?

    (h)  Give at least three of the influence factors in the Function-Point method.

    (i)  What are the most five core metrics according to Putnam ?

    (j)  What is the difference between $1^{st}$ Normal Form and $2^{nd}$ normal form ?

2. Identity the strength and weaknesses of : 10

   (i) Waterfall model

   (ii) Extreme programming model.

3. (a) Explain the significances of Gantt chart and PERT method for Project management. 5

   (b) What are the seven distinct functions executed to accomplish the Requirements Engineering process. Highlight each one. 5

4. How does COCOMO 81 help in estimation of different parameters in Software Development? Explain it with suitable example. 10

5. What are the different steps followed under Object Oriented software ?Analysis and Design, using the UML concept. Explain each step. 10

6. Explain the different strategies followed for testing conventional software. Highlight each one. 10

7. How the software configuration management is being done for different items considering their baselines ? 10

8. Write notes on : 5×2

   (a) Cyclomatic complexity

   (b) Chen's E-R Diagram.

————