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

PAPER ID : 1070   Roll No.

B. Tech.

(SEM. IV) EXAMINATION, 2007-08
SOFTWARE ENGINEERING

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

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

*(2)   All questions carry **equal** marks.*

1   Attempt any **two** of the following :   10×2

(a)   (i)   Define Software Engineering and how it is different from conventional engineering process.

(ii)   What is difference between SEI-CMM and ISO standards ?

(b)   (i)   Describe about software process model.

(ii)   What is evolutionary development model and give its advantages and disadvantages.

(c)   (i)   Explain what is SDLC.

(ii)   Differentiate between waterfall model and prototype model.

2   Attempt any **two** of the following :   10×2

- (a)   (i)   What are various requirements elicitation techniques ? Explain.

      (ii)   What problems and challenges are faced while eliciting requirement ?

- (b)   (i)   What are the benefits of ER diagram ?

      (ii)   For a Book store draw an ER diagram. (suitable assumptions may be taken)

- (c)   (i)   What is software quality ?

      (ii)   What is software quality framework and SQA ?

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

- (a)   Explain the following :

      (i)   Coupling

      (ii)   Cohesion

      (iii)   Structure chart

      (iv)   Pseudo code

- (b)   (i)   What different parameters are used for estimation ?

      (ii)   Explain COCOMO in detail.

- (c)   Explain the following with example :

      (i)   Function Oriented Design

      (ii)   Object Oriented Design

      (iii)   Top Down Design

      (iv)   Bottom up Design.

4   Attempt any **two** of following :   **10×2**

(a)   What is software testing ? Explain basis path testing using flow graph analysis in detail.

(b)   Explain white box testing in detail.

(c)   What is difference between testing and debugging ? Explain regression and acceptance testing in detail.

5   Attempt any **two** of following :   **10×2**

(a)   What is software maintenance ? Explain Software Re-Engineering.

(b)   What is reverse engineering ? Explain Corrective and Perfective maintenance.

(c)   (i)   What is software configuration management ?

(ii) What is Software Version control process ? Explain.