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B.Tech. (CSE) (Sem.–6)
SOFTWARE ENGINEERING
Subject Code : CS-332 (2007 & onward batches)
Paper ID : [A0497]

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1. SECTION-A is COMPULSORY.
2. Attempt any FOUR questions from SECTION-B.
3. Attempt any TWO questions from SECTION-C.

SECTION-A   (10 × 2 = 20 Marks)

l. Write short notes on :

(a) Define Software Engineering with an example.

(b) List the various phases of the development life cycle and briefly explain feasibility analysis.

(c) Briefly explain LOC as a software size estimation metric.

(d) What do you mean by Software Configuration Management? Explain.

(e) Briefly explain Software Requirement Specification document and its essential activities.

(f) What is the basic difference between functional design and object oriented design of a system?

(g) State the importance of code review in assessing quality of a software.

(h) How is Unit testing different from integration testing? Briefly explain.

(i) Software Reliability is an important issue in choosing the software. Comment.

(j) What is software reuse? Explain with an example .

SECTION-B **(4 × 5 = 20 Marks)**

2. What are the various models used to compute the cost of a software project? Explain in detail COCOMO model.

3. What are different type of testing techniques? Differentiate between Black Box and White Box testing with a suitable example.

4. What is a Model ? How does Model help in exploring the hidden aspects of the system and helps in completing the SRS document?

5. Differentiate between Software Verification and validation. Explain with a suitable example how verification and validation processes complement each other in defining a good software product?

6. What do you mean by software quality? What are the various metrics used to measure the quality of a software? Explain.

SECTION-C **(2 × 10 = 20 Marks)**

7. What is Spiral Model of Software life cycle? Explain each step of the model with the help of a suitable example.

8. What is a Software Repository? How does size of the repository help in enhancing the re-usability of software components? Comment on the statement that software development process will ultimately be reduced to software assembly.

9. Define Software Reverse Engineering process and compare it with Software engineering in context to deliverable's and its importance in maintenance of a software system.