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17220(N)

B. Tech 5th Semester Examination

Software Engineering (CBS)

CS-505

Time : 3 Hours www.epaper.tk Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all selecting one question from each of the section A, B, C and D of the question paper and all the subparts of the section E (compulsory).

SECTION - A

1. (a) What is Software Engineering? Explain Software Engineering: A Layered Technology. (6)
- (b) With suitable illustration explain SPIRAL model. (6)
2. a) Explain the software requirement analysis and modeling. (6)
- (b) Differentiate the features of various software lifecycle models highlighting their advantages and disadvantages. (6)

SECTION - B

3. (a) What is project management? Explain in detail. (6)
- (b) What are software metrics and measurements? (6)
4. (a) Explain Software Project Management and W⁵HH Principle. (6)
- (b) Discuss project scheduling with the help of bar charts and activity networks. (6)

SECTION - C

5. (a) What is meant by SQA? Discuss in detail SQA activities. (6)

- (b) List the areas covered under ISO 9000 under quality management. (6)
- 6. (a) What is the necessity of quality assurance in software development? (6)
- (b) What are the various testing strategies to software testing? Discuss them briefly. (6)

SECTION - D

- 7. (a) Describe software maintenance activities and explain the re-engineering. (6)
- (b) What is software maintenance? How to control maintenance cost? (6)
- 8. (a) Explain Agile Development in detail. (6)
- (b) Difference between reverse engineering and forward engineering. (6)

SECTION - E (Compulsory)

- 9. (i) List out the steps involved in real time software design. (2)
- (ii) What is meant by Boundary value analysis? (1)
- (iii) Define the term process maturity. (1)
- (iv) Name any four quality control tools. (1)
- (v) Why testing is important with respect to software? (1)
- (vi) How do you estimate time required for a software development project? (1)
- (vii) Name the task regions of a Spiral model. (1)
- (viii) Compare: Quality Control Vs. Quality Assurance. (1)
- (ix) Explain the different integration testing approaches. (2)
- (x) Explain how software process assessment helps software organizations to improve themselves. (1)