Roll No. ☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CSE / Electronics & Computer Engg. / IT) (2011 onwards) (Sem.–6)
SOFTWARE ENGINEERING
Subject Code : BTCS-603
Paper ID : [A2308]

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

    a) Prototyping

    b) Impact of software engineering

    c) Structure chart

    d) Coding standard

    e) Levels of testing

    f) Mutation testing

    g) Software reuse

    h) Rayleigh-Norden results

    i) Code review

    j) Coupling and Cohesion

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SECTION-B

2. What are the advantages and disadvantages of Waterfall Model for software development?

3. What do you mean by functional and non-functional requirements? Give at least two examples of each type of requirements.

4. What are the characteristics of a good test case? Discuss static and dynamic analysis in testing.

5. Explain component-based software development with the help of block diagram.

6. Discuss project scheduling using PERT and GANTT charts with the help of suitable example.

SECTION-C

7. Consider the following narrative description :

   Draw the Data Flow Diagrams for this description starting from zero level. If missing, consider suitable data to complete the description.

   The purpose of the TEXTBOOK INVENTORY SYSTEM at a campus bookstore is to supply textbooks to students for classes at a local university. The university's academic departments submit initial data about courses, instructors, textbooks and projected enrollments to the bookstore on a TEXTBOOK MASTER LIST. The bookstore generates a FORM 17; PURCHASE ORDER, which is sent to publishing companies supplying textbooks. Book orders arrive at the bookstore accompanied by a PACKING SLIP, which is checked and verified by the receiving department. Students fill out a BOOK REQUEST FORM that includes course information. When they pay for their books the students are given a paper tape CASE REGISTER SALES RECEIPT.

8. What is white-box testing? Explain the significance of cyclomatic complexity in white-box testing with the help of suitable example.

9. What is meant by software quality management? Explain the difference between ISO and SEI-CMMI approach for software quality.