

B.E. Sixth Semester (Computer Technology) (C.B.S.)  
**Software Engineering and Project Management**

P. Pages : 2

Time : Three Hours



**KNT/KW/16/7403**

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
  2. Solve Question 1 OR Questions No. 2.
  3. Solve Question 3 OR Questions No. 4.
  4. Solve Question 5 OR Questions No. 6.
  5. Solve Question 7 OR Questions No. 8.
  6. Solve Question 9 OR Questions No. 10.
  7. Solve Question 11 OR Questions No. 12.
  8. Due credit will be given to neatness and adequate dimensions.
  9. Assume suitable data whenever necessary.
  10. Use of non programmable calculator is permitted.

1. a) Explain software engineering-a layered technology. **6**  
b) Explain RAD model for s/w development along with advantages and disadvantages. **7**  
**OR**
2. a) Explain s/w applications with examples. **6**  
b) What is an Agile Process? **7**  
State its principles and different methods of Agile.
3. a) List and explain various system elements of computer - based system. **6**  
b) Explain product engineering hierarchy using diagram. **7**  
**OR**
4. a) What is SRS? Explain in brief. **7**  
b) What is QFD? What are various types of requirements defined in QFD? **6**
5. a) Explain elements of Analysis model. **6**  
b) Explain following terms with example. **8**
  - i) Data objects and attributes.
  - ii) Cardinality and modality.
  - iii) Refactoring.

**OR**

6. a) Write short notes on **any two**. 8
- i) Entity - Relationship Diagram.
  - ii) Data - flow Diagram.
  - iii) Cohesion and coupling.
- b) What is modularity? How to find moderate number of modules required with moderate cost of software? 6
7. Explain in detail White Box Testing and Black Box Testing. 13
- OR**
8. a) Explain the process of Bottom - up Integration with diagram. 6
- b) Explain in brief Alpha and Beta testing. 2
  - c) List and explain various system testing techniques. 5
9. a) Explain McCall's Quality factors. 7
- b) List and explain class-oriented matrices defined in CK metric suit. 7
- OR**
10. a) Explain with example, how FP based estimation is performed. Also explain, how it overcomes the problems associated with LOC-based estimation. 7
- b) What are the different Software Quality Assurance (SQA) activities? Explain. 7
11. a) List and explain various types of s/w risks. 4
- b) What is s/w reliability and s/w availability? Also explain measures. 5
  - c) Write note on RMMM plan. 4
- OR**
12. a) Write a note on SCM. 6
- b) Write short note on. 7
  - i) Reverse engineering.
  - ii) s/w reengineering.

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