Elective - II : Software Architecture

P. Pages : 2

Time : Three Hours

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0122

NKT/KS/17/7496

Max. Marks : 80

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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.

1. a) Define software process. Describe what are the various activities involve in software architecture. **7**

b) Describe following terms. **6**

i) A reference model.

ii) A reference architecture.

OR

2. a) What scalability and interoperability issues are available in software architecture. **7**

b) Write a short note on Architectural patterns. **6**

3. a) Explain in detail how quality attributes are understand. **10**

b) Define the term "Interoperability" & also explain Tactics for interoperability. **4**

OR

4. a) Enlist various quality attributes used in software architecture templates. Also explain how these attributes used in software architecture templates. **8**

b) Describe the process of deriving the quality attributes for S/W architecture. **6**

5. a) What is Design pattern? How particular design pattern is selected for our problem? **7**

b) Explain principles and expectations of Design patterns. **7**

OR

6. Explain following structural patterns in detail. **14**

      i)   Adapter.

      ii)   Composite.

      iii)   Facade.

      iv)   Proxy.

7. a)   Write short notes on. **8**

      i)   Decentralized Architectures.

      ii)   Service- oriented architectures.

   b)   Explain service description and discovery stack for web services. **5**

<div align="center">OR</div>

8. a)   Explain Internal architecture of web service using neat diagram. **7**

   b)   Illustrate and explain conventional Architectural styles. **6**

9. a)   What are the main components of Middleware? Explain each in short. **7**

   b)   Write and explain software architecture future. **6**

<div align="center">OR</div>

10. a)   Write a detailed note on components and COTS. **8**

   b)   Explain how middleware is implemented. **5**

11. a)   Explain Multi-tier web architecture in detail. **7**

   b)   What is the need of server side technology in multi-tier architectures. **6**

<div align="center">OR</div>

12. a)   Write short notes on **any two.** **8**

      i)   Java Script.

      ii)   Applet.

      iii)   AJAX.

   b)   Define web Architecture. Also explain components of web Architecture. **5**

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