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B.E. (Computer Science & Engineering) Seventh Semester (C.B.S.)

Elective - II : Software Architecture

P. Pages: 2 NJR/KS/18/4635 Time: Three Hours Max. Marks: 80 Notes: 1. All questions carry marks as indicated. Solve Question 1 OR Questions No. 2. 2. Solve Question 3 OR Questions No. 4. 3. 4. Solve Question 5 OR Questions No. 6. 5. Solve Question 7 OR Questions No. 8. Solve Question 9 OR Questions No. 10. 6. 7. Solve Question 11 OR Questions No. 12. Due credit will be given to neatness and adequate dimensions. 8. Illustrate your answers whenever necessary with the help of neat sketches. 9. Define software process. What are the various activities involved in software Architecture. a) Explain scalability and interoperability issues in software Architecture. 6 OR 2. Draw and explain the architecture of web application with suitable example. 7 a) Write a short note on Architecture pattern. b) What is quality attribute? Explain different quality attributes. 3. a) b) How can we decide the quality of S/W architecture. OR State and explain quality attributes in software architecture. 4. Explain the complete process for deriving the quality attributes for software architectures. b) 6 5. What is design pattern? How particular design pattern is selected for any problem. 7 a) Write note on - software architecture and maintenance management. 7 b) OR 14 6. Write short notes on any four. i) Factory. ii) Singleton. Facade. Chain of ways. iii) iv) v) Composite. Explain web services architecture and its elements in detail.



Illustrate and explain conventional Architectural styles. OR Write short note on any two. i) Decentralized Architecture. Service Oriental Architecture. ii) iii) Network based applications Architectures. List and explain different components of middleware with their features. 9. 7 a) Explain in detail the architecture of middleware. b) 6 OR **10.** Write a detailed note on components and COTS. 8 a) How does the programming models implementing in middleware. 5 b) Explain in detail the need of client side technology in multi-tier Architecture. With the 7 11. a) help of suitable example. Draw and explain three tier web architecture. 7 b) OR **12.** Explain in detail the need of server side technology in multi-tier architecture with the help a) of suitable example. Write short note on: b) Servlet. Applet. ii) iii) AJAX.



The best time to plant a tree was 20 years ago. The second best time is now.

~ Chinese Proverb

