

9/5/2013

M.E (CMPN) Sem II (0)
Software Engg.

P3-upq-Feb.-13KL-47 A4 E

Con. 8272-13.

BB-7426

(3 Hours)

[Total Marks : 100

N.B. :(1) Question No. 1 is compulsory.

(2) Attempt any **four** questions out of the remaining questions.

1. (a) Discuss any two evolutionary software process models in detail. **10**
(b) Explain process, project, product and software team structure. **10**
2. (a) Explain the approach used by Software Engineering Institute (SEI) to determine an organization's current state of process maturity. **10**
(b) Discuss Object Oriented Testing. **10**
3. (a) Explain the task of Software Configuration Management. **10**
(b) Explain cohesion and coupling in effective modular design. **10**
4. (a) Explain design steps involved in transform mapping in the design of software architecture. **10**
(b) Discuss functional modelling for Real time systems. **10**
5. (a) Define Reliability, Availability and explain their measures. **10**
(b) Explain Rmmm, RIS and its format. **10**
6. (a) Explain how project scheduling and tracking is done for a software development project. **10**
(b) What are different Testing strategies ? Explain. **10**
7. Write short notes on any **two** :— **20**
 - (a) Formal Technical Review
 - (b) Function Oriented Metrics
 - (c) Debugging Approaches.

ME (CAMP) OLD SEM II May 2013 14/5/13
DRA. OP. SYS.

vs. Con-2013-31

Con. 8576-13.

BB-7441

(3 Hours)

[Total Marks : 100

Question 1 is Compulsory. Attempt any four from Question No. 2 to 7.

1. (a) What are main features of Distributed operating System? (5)
(b) Explain critical section problem in Distributed operating System (5)
(c) What are main features of Real Time Operating System? (5)
(d) Explain sockets in Distributed Operating System. (5)
 2. (a) Name the main components of a Distributed file system. What might be the reasons for separating the various functions of a DFS into these components? (10)
(b) What is the essential difference between a block special file and a character special file? (10)
 3. (a) When file systems replicate files, they do not replicate all files. Give an example of a kind of file that is not worth replicating. (10)
(b) Suggest a suitable mechanism for implementing each of the following types of IPC semantics (i) Least One (ii) At Least Once (iii) Exactly Once. (10)
 4. (a) Explain Consistency models used in Distributed Shared Memory. (10)
(b) Explain Thrashing in Distributed Shared Memory. (10)
 5. (a) Explain Deadlock mechanism in Distributed Systems. (10)
(b) Describe the blocking and non-blocking types of IPC. Which is easier to implement and why? (10)
 6. (a) Mach supports two types of messages: simple and complex. Are the complex messages actually required or is this merely an optimization? (10)
(b) Mach supports the concept of a processor set. On what class of machines does this concept make the most sense? What is it used for? (10)
 7. Write Short Notes on any Two: (20)
(a) Semaphores and Monitors
(b) Process Management in Real Time OS.
(c) Heterogeneous distributed Shared Memory.
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