Seat No. : _____

NB-146

December-2015

5th Year M.Sc., CA & IT

Distributed Operating System

Time : 3 Hours] **[Max. Marks : 100**

1. Answer in short : (Any **ten**) **20**

   (1) Define tightly coupled system.

   (2) State two differences between minicomputer model and processor pool model.

   (3) What is DTS in DCE ? How does it function ?

   (4) What are VBR and CBR ? Give at least one example of each.

   (5) What is the total length of SONET packet ? Out of which how many bytes are used for overhead ?

   (6) What is the size of HEC ? What does it contains ?

   (7) Is class C delay sensitive ? Yes or No ? Does it also require connection orientation ?

   (8) What is peak-rate allocation method ? Where does it used ?

   (9) Draw two paradigms of IPC.

   (10) Explain structural information field of basic IPC message structure.

   (11) Why interrupt is used in IPC synchronization ?

   (12) Define *m-out-of-n-reliable* and *0-reliable* of multicast communication.

2. Answer the following : **20**

   (1) Call semantics in RPC.

   (2) RRA algorithm.

   (3) Transparency of RPC.

   (4) RPC messages.

3. Answer any **four** : **20**

(1) Explain Granularity.

(2) Replacement strategy.

(3) Passive time server centralized algorithm.

(4) Centralized approach for mutual exclusion.

(5) Hierarchical approach for deadlock detection.

4. Answer any **four** : **20**

(1) Basic idea behind task assignment approach.

(2) Centralized versus distributed load balancing approach.

(3) Write a short note on process transfer policies.

(4) List out desirable features of a good process migration mechanism.

(5) Write a short note on model for organizing threads.

5. Answer any **two** : **20**

(1) Object locating mechanisms in naming.

(2) Explain system oriented names.

(3) Write a short note on file sharing semantics.

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