M.C.A [SEM – V]
Distributed Computing
(DEC- 2017)

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Q.P. Code :04146

[Time: Three Hours] **[Marks:80]**

Please check whether you have got the right question paper.

N.B:
1. Question.No.1 is compulsory.
2. Attempt any four from Q2 to Q7.
3. Figures to the right indicate full marks.

1. **a.** Explain the issues in design of a Distributed OS? **(10)**

b. Write short notes on i) DCE ii) Buffering **(10)**

2. **a.** Describe the blocking and non-blocking types of IPC along with its pros and cons. Which is easier to implement and why? **(10)**

b. Explain the various consistency models of DSM in brief. **(10)**

3. **a.** Explain the synchronization algorithms in brief. **(10)**

b. Discuss the issues in designing Load-balancing algorithm. **(10)**

4. **a.** Give suitable examples for each of the following, a process using multiple threads:- **(10)**

I) In dispatcher worker model

II) In a pipelined process model

III) In a team model

b. Explain how RPC model works with suitable diagram. **(10)**

5. **a.** What is an idempotent operation? Which of the following operations are idempotent? Justify. **(10)**

a. Cin>>data;

b. ifstream infile("input text");infile.seek();

c. cout<< data;

d. int a=1,b=2,c; c= a + b;

b. What are the different address space transfer mechanisms used in process transfer? **(10)**

6. **a.** Explain the various file accessing models and the file sharing semantics in brief. **(10)**

b. Write a short note on i) Thrashing ii) Human oriented names **(10)**

7. Write short notes on **any four** from the following: **(20)**

a. Process addressing

b. Client-Server binding

c. Election algorithm

d. NFS vs. AFS

e. Munin

----- xxx All the Best xxx -----

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