

U.G. 6th Semester Examination - 2020**BCA****Course Code : BBCADSHT5****Course Title : Advance Operating System**

Full Marks : 40

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **ten** questions: 1×10=10
- a) What is message passing?
 - b) Define RMI.
 - c) What is the basic of RPC operation?
 - d) Why coherence protocols are used in distributed shared memory?
 - e) Define memory coherencing.
 - f) Which are encapsulated by monitors?
 - g) What is the full form of RAID?
 - h) Write the purpose of LAMPORT's algorithm.
 - i) Define buffering.

- j) Why voting algorithm is used?
- k) What is the major shortcoming of Monin's type specific memory coherence protocol?
- l) Are servers in SFS stateless?
- m) Suggest a scheme for automatic detection of lost call back in coda.
- n) Write two major key challenges of distributed system.
- o) Write the names of any two algorithms which are used in synchorization.

2. Answer any **five** questions: 2×5=10
- a) Show that only being "well formed" does not guarantee serializability.
 - b) Define thrashing.
 - c) What are the drawbacks of monitors?
 - d) Define granularity.
 - e) What is the difference between deadlock and starvation?
 - f) How a system can tolerant fault?
 - g) What is IPC?
 - h) What is data migration?

[Turn over]

3. Answer any **two** questions: $5 \times 2 = 10$

a) i) Make a comparison chart between stateful and stateless servers.

ii) What do you mean by process migration?
 $3+2$

b) How serializers solve several deficiencies of monitors? 5

c) i) What is the benefits of grouping files into volumes in coda?

ii) What are the advantages of distributed system?
 $3+2$

4. Answer any **one** question : $10 \times 1 = 10$

a) i) Discuss about two-phase commit protocol.

ii) What is the difference between concurrences control and mutual exclusion. $6+4$

b) i) Write a monitor to solve producer consumer problem.

ii) Write a short note on Remote Procedure Calls. $6+4$

c) i) What are the limitations of Lamport's logical clocks? How to over come them with vector clocks?

ii) In detail explain protocol used for private key system and discuss the protial threats on it. $(2+2)+6$
