Roll No. [redacted] Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.–4)

OPERATING SYSTEMS

Subject Code : UGCA-1923

M.Code : 79727

Date of Examination : 11-07-22

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

1. Write briefly :

a) What is an operating system?

b) What does PCB contain?

c) What do you mean by process synchronization?

d) What is a scheduler?

e) Define critical section.

f) Differentiate between paging and segmentation.

g) What do you mean by Best Fit and First fit?

h) List the various File Attributes.

i) Define device drivers.

j) Define distributed operating system.

SECTION-B

2. Discuss the Simple Operating System Structure. Describe the layered approach.

3. What is the important feature of critical section? State the Readers Writers problem and give solution using semaphore.

4. What are the various criteria for a good process scheduling algorithm? Explain any two preemptive scheduling algorithms in brief.

5. Explain with the help of examples FIFO and LRU, optical page replacement algorithms with example reference string. Mention the merits and demerits of each of the above.

6. a) What are the typical access rights that may be granted or denied to a particular user for a particular file.

   b) What are the various methods for disk allocation?

7. Define Distributed Operating System. Discuss about its architecture and characterstics.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.