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Total No. of Pages : 02

Total No. of Questions : 09

M.Sc.(IT)/MCA/PGDCA (2019 Batch) (Sem.-1)

OPERATION SYSTEM

Subject Code : PGCA-1903

M.Code : 76973

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying TEN marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

Q1. Explain the following :

- a) PCB
- b) LRU
- c) Paging
- d) DMA
- e) Trashing
- f) Scheduling
- g) System call
- h) Throughput
- i) Deadlock
- j) Fragmentation

## SECTION-B

- Q2. Define Operating Systems and its types.
- Q3. Find waiting and turnaround time for the given processes using FCFS and SCF algorithms.

| Process | Arrival Time (ms) | Burst Time (ms) |
|---------|-------------------|-----------------|
| P1      | 1                 | 5               |
| P2      | 2                 | 4               |
| P3      | 2                 | 7               |
| P4      | 3                 | 2               |

- Q4. Differentiate between preemptive and non-preemptive scheduling.
- Q5. What is round robin scheduling? Explain it with help of an example.

## SECTION-C

- Q6. Discuss basic memory management techniques and their advantages and dis-advantages.
- Q7. Differentiate between LRU and optimal replacement algorithms with help of example.
- Q8. What is a page fault? Also describe locality of reference.
- Q9. Explain various levels of RAID structure.

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