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Total No. of Pages : 02

Total No. of Questions : 07

B.Sc.(CS) (2013 & Onwards) (Sem.-4)

OPERATING SYSTEMS

Subject Code : BCS-405

Paper ID : [72321]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION 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 a student has to attempt any FOUR questions.

SECTION-A**Q1. Answer briefly :**

- a) What is the need for an operating system?
- b) What constitutes a good scheduling algorithm?
- c) What is context switching?
- d) Discuss the various process states.
- e) Differentiate between paging and segmentation.
- f) What do you mean by page fault?
- g) Briefly discuss multi-processor scheduling.
- h) How directories are helpful in computer systems?
- i) Discuss any one file access method in brief.
- j) What are the various security threats to a system?

SECTION-B

- Q2. What is an Operating System? Discuss and differentiate among various types of operating systems.
- Q3. What are Threads? What are types of threads? Explain the applications and issues of threads.
- Q4. What is Inter-process communication? Discuss the message passing model in detail.
- Q5. Explain the various page replacement algorithms.
- Q6. Define Thrashing. What is the cause of thrashing? How does the system detect thrashing? What are the models used to avoid thrashing.
- Q7. What is Disk Scheduling? Explain SCAN and C-SCAN algorithms for disk scheduling with the help of suitable examples.

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