

Roll No.

Total No. of Pages : 02

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B.Sc. (CS) (Sem.-4)  
**OPERATING SYSTEMS**  
Subject Code : BCS-405  
M.Code : 72321  
Date of Examination : 15-07-22

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 a student has to attempt any FOUR questions.

**SECTION-A**

1. Answer briefly :

- a) List the functions of operating systems.
- b) What is device driver?
- c) What is context switching?
- d) Explain in brief about Inter-process communications.
- e) Define socket.
- f) What do you mean by virtual memory?
- g) Explain the loading and linking in memory management.
- h) What is firewall?
- i) What is paging in operating system.
- j) Explain access methods in file management.

## SECTION-B

2. Write a note on the various services provided by the operating systems.
3. Explain in detail about the following CPU scheduling algorithms :
  - a) Shortest Job First
  - b) First Come First Serve.
4. Write a detailed note on multiprocessor and distributed operating system.
5. Write a brief note on segmentation scheme of memory management.
6. What do you mean by page replacement algorithm in operating system? Explain in detail.
7. What are the different ways of ensuring security and protection in operating system? Explain in detail.

**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.**