

Paper code: 13513

1513

B.Sc. (Computer Science) (Part 2)

Examination, 2019

Paper No. 2.1

**OPERATING SYSTEM**

Time: Three Hours] [Maximum Marks: 33

Note: Attempt five questions in all. Attempt one question from each unit.

**Unit-I**

1. (a) What is the role of O.S.? Explain its different functions.5  
(b) How “CUI” is different from “GUI”?2
2. (a) Explain the time sharing O.S.4  
(b) Describe the ways used for the file protection.3

**Unit-II**

3. (a) Draw and describe the states of a process.3  
(b) How short term scheduler is different from long term-scheduler?3
4. (a) Describe the “Shortest-Job first”-SJF CPU scheduling.3  
(b) How “round-robin” algorithm works?3

**Unit-III**

5. (a) What are the Bare Machines?4  
(b) Differentiate “Paging” and “Segmentation”.3
6. (a) Define the term “Resident Monitor”.3 <http://www.mjpruonline.com>  
(b) Describe the concept behind virtual demand paging.4

**Unit-IV**

7. (a) How resource protection mechanisms are implemented?3  
(b) What do you mean by “Access Matrix”? Explain with one example.3
8. (a) Explain the structure of dynamic protection.3  
(b) Write down resource protection policies.3

**Unit-V**

9. (a) What is “Android-O.S.”? or What is “Windows-NT”?3  
(b) Define the “Stand-alone server”.4
10. Write down short notes on following: (any two)7
  - (a) Deadlock avoidance
  - (b) DNS
  - (c) Router
  - (d) D.S. Services

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