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**DMI-ST.EUGENE UNIVERSITY
DEGREE EXAMINATION – DECEMBER – 2022**

SEM: IV

351 CS 43 OPERATING SYSTEM

Time: 3 Hours

Max. Marks: 100

Answer any Five questions (5 x 20 = 100 Marks)

1. a) Describe in detail about various types of scheduling algorithms. **(10 Marks)**
b) Explain the types of operating systems. **(10 Marks)**
2. a) What is process synchronization? **(5 Marks)**
b) Differentiate between Translators and Interpreters. **(5 Marks)**
c) Write shortly on the usage of semaphores. **(5 Marks)**
d) Discuss the three classical problems of synchronization. **(5 Marks)**
3. a) Deeply discuss about Swapping. **(10 Marks)**
b) Describe in detail about paging concepts. **(10 Marks)**
4. a) What is a file? **(2 Marks)**
b) Discuss about directory structures in depth. **(10 Marks)**
c) Briefly explain about different types of files with its extensions. **(8 Marks)**
5. a) Distinguish dynamic loading and dynamic linking. **(10 Marks)**
b) What is free space management in OS? Explain. **(10 Marks)**
6. a) What are the advantages and disadvantages of Virtual Machines? **(8 Marks)**
b) Explain in brief about process states. **(4 Marks)**
c) A brief study on purpose and objectives of operating systems. **(8 Marks)**
7. a) In what ways can a domain be realized? **(4 Marks)**
b) Explain in details on authentication. **(8 Marks)**
c) Write short notes on threat monitoring and encryption. **(8 Marks)**