

**OPERATING SYSTEM****Option-II****Paper-CSE-307**

Time Allowed : 3 Hours

[Maximum Marks : 75]

**Note** : Attempt **five** questions in all, selecting at least **one** question from each Unit. All questions carry equal marks.

**UNIT-I**

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|---|---|
| 1. (a) Explain the characteristics of Operating systems.                    | 8 |
| (b) Write a short note on threading.  | 7 |
| 2. (a) Discuss directory and file protection mechanisms.                    | 8 |
| (b) Explain round robin CPU scheduling with the help of a suitable example. | 7 |

**UNIT-II**

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|--|---|
| 3. (a) Differentiate between segmentation and fragmentation. | 8 |
| (b) Explain the concept of demand paging.                    | 7 |
| 4. (a) Write a short note on device management.              | 8 |
| (b) Explain the Thrashing.                                   | 7 |

**UNIT-III**

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|---|---|
| 5. (a) Explain the four necessary conditions for a deadlock to occur. | 8 |
| (b) Discuss the deadlock prevention.                                  | 7 |
| 6. (a) What is meant by critical section problem?                     | 8 |
| (b) Write a short note on inter-process communications.               | 7 |

**UNIT-IV**

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| 7. Explain the file system and interrupt mechanism of DOS. | 15 |
| 8. Explain the Storage management and file system of UNIX. | 15 |