

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech II Year II Semester Supplementary Examinations May/June-2024

PRINCIPLES OF OPERATING SYSTEMS
(Computer Science & Information Technology)

Time: 3 Hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

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|---|---|--|-----|----|----|
| 1 | a | Define Operating System and List Operating System Structure in detail. | CO1 | L1 | 6M |
| | b | Compare between Operating System Protection and Operating System Security? | CO5 | L5 | 6M |

OR

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|---|---|--|-----|----|----|
| 2 | a | Demonstrate evolution of Operating System in detail. | CO1 | L3 | 6M |
| | b | Explain in detail User and Operating System Interface. | CO2 | L2 | 6M |

UNIT-II

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|---|---|---|-----|----|----|
| 3 | a | Discuss Process Scheduling in detail. | CO6 | L6 | 6M |
| | b | Examine in detail Threading issues in Operating System. | CO4 | L4 | 6M |

OR

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|---|---|---|-----|----|----|
| 4 | a | Demonstrate Operating System Scheduling-Criteria in detail. | CO3 | L3 | 6M |
| | b | Explain in detail Real-Time CPU Scheduling. | CO2 | L2 | 6M |

UNIT-III

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|---|---|--|-----|----|----|
| 5 | a | Demonstrate Peterson's Solution in detail. | CO3 | L3 | 6M |
| | b | Examine deadlock prevention in detail. | CO4 | L4 | 6M |

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|---|---|--|-----|----|----|
| 6 | a | Explain about deadlock characterization. | CO2 | L2 | 6M |
| | b | Discuss in detail System Model. | CO6 | L6 | 6M |

UNIT-IV

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|---|---|---|-----|----|----|
| 7 | a | Examine in detail about Segmentation. | CO4 | L4 | 6M |
| | b | Discuss Contiguous Memory allocation in detail. | CO6 | L6 | 6M |

OR

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|---|---|---|-----|----|----|
| 8 | a | Explain about Process Creation in detail. | CO2 | L2 | 6M |
| | b | Discuss about Page-replacement in detail. | CO6 | L6 | 6M |

UNIT-V

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|---|---|---|-----|----|----|
| 9 | a | Explain about Disk scheduling and Swap-space management. | CO5 | L5 | 6M |
| | b | Examine about RAID structure and stable-storage implementation. | CO6 | L6 | 6M |

OR

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|----|---|---|-----|----|----|
| 10 | a | Compare between file sharing and file protection. | CO5 | L5 | 6M |
| | b | Examine in detail about Directory Implementation. | CO4 | L4 | 6M |

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