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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
MCA I Year I Semester Regular & Supplementary Examinations May-2022
OPERATING SYSTEM

Time: 3 hours

Max. Marks: 60

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

UNIT-I

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|---|--|----|----|
| 1 | a Define about system calls. | L1 | 6M |
| | b Briefly discuss about various types of system calls. | L2 | 6M |

OR

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|---|--|----|----|
| 2 | a Write a brief description on operating system designing. | L6 | 6M |
| | b Briefly write about operating system implementation. | L2 | 6M |

UNIT-II

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|---|--|----|----|
| 3 | a What is mean by process synchronization? | L1 | 6M |
| | b Discuss in detail about classic problems of synchronization. | L2 | 6M |

OR

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|---|--|----|----|
| 4 | a Explain about preemptive scheduling. | L2 | 6M |
| | b Discuss about scheduling criteria in detail. | L2 | 6M |

UNIT-III

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|---|---|----|----|
| 5 | a Explain about case studies of Linux and Windows. | L2 | 6M |
| | b Examine various memory management techniques in detail. | L4 | 6M |

OR

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|---|--|----|----|
| 6 | a What is segmentation with example? | L1 | 6M |
| | b Write a brief description on segmentation technique. | L2 | 6M |

UNIT-IV

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|---|--|----|----|
| 7 | a Discuss about various disk scheduling in detail. | L2 | 6M |
| | b Briefly explain about disk management. | L2 | 6M |

OR

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|---|---|----|----|
| 8 | a Generalize and discuss on directory implementation. | L6 | 6M |
| | b Explain about file system mounting. | L2 | 6M |

UNIT-V

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|---|--|----|----|
| 9 | a What are the necessary conditions of a deadlock? | L1 | 6M |
| | b Explain in detail about deadlock prevention methods. | L2 | 6M |

OR

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|----|---|----|----|
| 10 | a Discuss language-based protection. | L2 | 6M |
| | b Briefly explain about revocation of access rights & capability based systems. | L4 | 6M |

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