

R18

Code No: 155AP

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, March - 2024

COMPUTER ORGANIZATION AND OPERATING SYSTEMS

(Electronics and Communication Engineering)

Time: 3 Hours

Max. Marks: 75

Note: i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART - A

(25 Marks)

- | | | |
|------|---|-----|
| 1.a) | What is multiprocessor? | [2] |
| b) | What are various addressing modes? | [3] |
| c) | What is microprogram? | [2] |
| d) | Explain about ROM. | [3] |
| e) | What is USB? | [2] |
| f) | What is asynchronous data transfer? | [3] |
| g) | What is system program? | [2] |
| h) | What is the purpose of wait-for-graph? | [3] |
| i) | What is file? | [2] |
| j) | What are the various operations performed on directory? | [3] |

PART - B

(50 Marks)

- | | | |
|-----------|---|-------|
| 2. | Explain fixed point representation in detail with examples. | [10] |
| OR | | |
| 3. | Explain arithmetic and logic micro operations with suitable examples. | [10] |
| 4. | Explain about memory system in detail. | [10] |
| OR | | |
| 5. | What are the applications of microprogrammed control unit? Explain. | [10] |
| 6. | Discuss about serial communication protocol RS232. | [10] |
| OR | | |
| 7. | What is DMA? What is the purpose of DMA? Explain. | [10] |
| 8. | Distinguish between paging and segmentation. | [10] |
| OR | | |
| 9. | Write deadlock detection algorithm and explain it. | [10] |
| 10.a) | Explain about general graph directory structure. | |
| b) | What is file system mounting? What is its necessity? | [5+5] |
| OR | | |
| 11.a) | How can we achieve file protection? | |
| b) | Describe various file allocation methods. | [5+5] |

---ooOoo---