**R15**

# ANURAG Engineering College
## (An Autonomous Institution)
### III B.Tech I Semester Supplementary Examinations, Dec–2023/Jan-2024
## COMPUTER ORGANIZATION AND OPERATING SYSTEM
## (ELECTRONICS AND COMMUNICATION ENGINEERING)

Time: 3 Hours                                                                Max.Marks:75

### Section – A (Short Answer type questions)                              (25 Marks)
**Answer All Questions**

| | | Course Outcome | B.T Level | Marks |
|---|---|---|---|---|
| 1. | List out the advantage and disadvantages of using a fixed-point representation. | CO1 | L1 | 2M |
| 2. | What is Bus Transfer in Computer Architecture? | CO1 | L2 | 3M |
| 3. | Explain the Read-Only Memories | CO2 | L1 | 2M |
| 4. | Explain the Control Memory | CO2 | L2 | 3M |
| 5. | What is the input-output processor in computer architecture? | CO3 | L1 | 2M |
| 6. | What are the types of peripheral devices? | CO3 | L2 | 3M |
| 7. | Explain any two main functions of an operating system. | CO4 | L2 | 2M |
| 8. | Explain the protection and security in operating system. | CO4 | L1 | 3M |
| 9. | Which structure is used to implement file system handled by OS? | CO5 | L2 | 2M |
| 10. | What is the file system interface in operating system? | CO5 | L2 | 3M |

### Section B (Essay Questions)
**Answer all questions, each question carries equal marks.**          (5 X 10M = 50M)

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|---|---|---|---|---|
| 11.A) | Explain the floating-point representation of data. | CO1 | L2 | 10M |
| | **OR** | | | |
| B) | Explain the Multiprocessors and Multi Computers. | CO1 | L2 | 10M |
| | | | | |
| 12.A) | Explain the about RAID and its advantages. | CO2 | L3 | 10M |
| | **OR** | | | |
| B) | Explain the cache memory and its mapping techniques. | CO2 | L3 | 10M |
| | | | | |
| 13.A) | Explain the Asynchronous Data Transfer Modes. | CO3 | L2 | 10M |
| | **OR** | | | |
| B) | Explain the RS232 Serial Communication Protocols. | CO3 | L2 | 10M |
| | | | | |
| 14.A) | Explain the Operating System Services and System Calls. | CO4 | L3 | 10M |
| | **OR** | | | |
| B) | Explain the Deadlock Characterization and Deadlock Detection. | CO4 | L3 | 10M |
| | | | | |
| 15.A) | Discuss the different file allocation methods with suitable example. | CO5 | L2 | 10M |
| | **OR** | | | |
| B) | Explain the Free-Space Management and File System Mounting. | CO5 | L3 | 10M |