



## Advance Unix Programming (New) (1230)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answer sheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Answer **any two** questions from each unit.
5. Figure to the right indicate full marks.
6. Draw suitable diagram and assume suitable data wherever necessary.

### UNIT - I

1. Explain architecture and various shells of unix system. **10**
2. i) Explain open ( ) function to open or to create a file. **5**  
ii) If you open a file for read - write with the append flag, can you still read from any where in the file using lseek ? Can you use lseek to replace existing data in the file ? **5**
3. Explain stat, fstat, lstat functions. **10**

### UNIT - II

4. Explain shadow passwords and list the fields in / etc / shadow file with description. **10**
5. Explain how any "C" program is started and how it terminates by various ways. **10**
6. Explain race condition and write down any program containing race condition. **10**

**UNIT – III**

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|----|---|----|
| 7. | Explain signal concept and disposition of signal. | 10 |
| 8. | Explain following terms in short.                 | 10 |
|    | a) Generation of signal.                          |    |
|    | b) Delivery of signal.                            |    |
|    | c) Pending signal.                                |    |
|    | d) Signal mask.                                   |    |
| 9. | Explain I/o multiplexing concept in detail.       | 10 |

**UNIT - IV**

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|-----|---|----|
| 10. | Explain thread synchronisation in detail.   | 10 |
| 11. | Explain thread - specific data with<br>pthread-key-create ( ),<br>pthread-key-delete ( ) and<br>pthread-once ( ) functions. | 10 |
| 12. | Explain all daemoir coding rules.   | 10 |

**UNIT - V**

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|-----|---|----|
| 13. | Explain semaphore concept and discuss on various features that makes it more complicated. | 10 |
| 14. | Explain bind ( ) and connect ( ) functions used in socket IPC.                            | 10 |
| 15. | Explain STREAM-Based Pipes.   | 10 |

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