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No.

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मन - 066

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. Answersheet 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. Attempt **any two** questions from each unit.
5. Figures to the right indicate full marks.
6. Draw suitable diagrams wherever necessary.

UNIT - I

1. a) What is shell ? Discuss the common shells used on unix systems. 10
b) Discuss the different set of directory routines for reading directories in unix. 10
c) Discuss how the access time and modification of a file can be changed with u time function. 10

UNIT - II

2. a) i) Discuss account implementation differences in Free BSD, Linux, MAC OS and solaris in brief. 5
ii) Explain in brief data files that have been provided for login accounting in unix systems. 5
b) i) List and explain the fields contained in unix system group file. 5
ii) Discuss various functions to look either a group name, numerical group id and search entire group file. 5
c) Discuss process identifiers in detail. 10

UNIT - III

3. a) Discuss signal function in brief ? Write a simple program to catch user defined signals SIGUSR1 and SIGUSR2. 10
- b) i) Explain in brief signal mapping functions. 5
- ii) Discuss about job control signals in brief. 5
- c) i) Discuss in brief reliable signal terminology and semantics. 5
- ii) Explain kill and raise functions. 5

UNIT - IV

4. a) Explain thread creation and write a program to create one thread and print the process and thread IDs of new thread and initial thread. 10
- b) What is thread specific data ? Discuss pthread_key_create and pthread_key_delete functions. 10
- c) i) What are single Instance Daemons ? Explain it in brief. 5
- ii) Explain openlog, syslog, closelog and setlog mask functions. 5

UNIT - V

5. a) Explain following in short.
- i) Byte ordering for socket. 5
- ii) Associating address with sockets. 5
- b) Discuss in detail STREAMS Based Pipes. 10
- c) Explain the following.
- i) Socket Descriptors. 5
- ii) Coprocesses in unix. 5
