

Exam. Code
6027

8706

BT-7/M-11
UNIX & LINUX PROGRAMMING
Paper-CSE-471
Opt. (ii)

Time : Three Hours]

[Maximum Marks : 75

Attempt any *five* questions, selecting at least *one* question from each unit.

UNIT-I

- (a) Explain i-node table with its structure and explain various entries in the table. 7
- (b) What are various permissions on a file ? Discuss various methods by which permissions can be changed on a file. 8

What is a shell script, discuss various shell functions and write a shell script that uses case-switch statement. 15

UNIT-II

- (a) Explain 'sed' with various editing options available with it with examples. 8
- (b) How does these differ :
 - (i) [0-9]* and [0-9] [0-9]* 109 7
 - (ii) ^[^\] and ^^^

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[P.T.O.]

- (a) Discuss entropy, mutual information and Foll N properties.
- (b) Explain :
- (i) Discrete memoryless channels.
 - (ii) BEC channel.

UNIT-III

- (a) Discuss various types of errors and error strategies. Time
- (b) What are linear block codes ? Discuss the distance of a block code. Note
- (a) Explain Cyclic code and its properties. 1.
- (b) Discuss in detail Hamming codes.

UNIT-IV

- (a) What is Berlekamp-Preparata convolution code for error correction ? 2.
- (b) Explain Viterbi-decoding.
- (a) Compare Selective-repeat ARQ and Go-back-N ARQ.
- b) What is hybrid ARQ ?
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