YMCA UNIVERSITY OF SCIENCE & TECHNOLOGY, FARIDABAD
(CE) B.TECH EXAMINATION (Under CBS)
UNIX SHELL PROGRAMMING, CE-308

Time: 3 hrs   MM: 60

Note: There will be two parts namely Part I and Part-II. Part-I is Compulsory and in Part-II, Attempt any four questions out of six questions.

PART- I

10*2=20

Q1 a) Explain the architecture of UNIX operating system?

   b) Differentiate between

   i) touch and cat command

   ii) Background and foreground process

   c) Why a sticky bit is associated with a file in the UNIX operating system.

   d) What are inodes? Explain various fields of inodes?

   e) Difference between   CMP command and COMM command?

   f) Explain in detail different modes of Vi editor?

   g) Differentiate between absolute pathname and relative path name?

   h) Explain various block commands of vi editor?

   i) Explain in brief the significance of test command in shell script?

   j) Explain the concept of password aging?

PART- II

Q2. a) Differentiate between $#, $* and S?   4

   b) Explain in detail various attributes of file descriptor table?   4

   c) Write a UNIX command to extract the address field from a file F1 which contains

records having fields name: age: address: phone?   2

Q3. a) Explain in detail directory structure of UNIX Operating System?   5

   b) Draw process state diagram in UNIX environment?   5

Q4. Explain in detail Fair share scheduling in UNIX operating System with the help of an

                                                                                     10
example?

Q5. a) List various shell scripting commands Explain in detail importance of shell scripts in UNIX environment? Discuss various shell scripts along with examples?   5

b) What are Filters? What is the significance of using filters? List various filters along with syntax available in UNIX environment?   5

Q6. List out various commands used by the administrator only in the UNIX environment and explain them with the help of an example?   10

Q7. Write short note on: 10

    i)   Access permissions of a file

    ii)   System shutdown