

AMIETE – CS/IT (New Scheme)

Time: 3 Hours

December - 2017

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE: There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following: (2×10)

- Unix is written in _____.
(A) Ada (B) C
(C) Perl (D) Pascal
- Which command is used to display and create files?
(A) vi (B) touch
(C) cat (D) cp
- When we are executing a shell script the shell acts as _____.
(A) An Interpreter (B) A kernel
(C) A compiler (D) An Operating System
- Which command is used to delete all files in the current directory as well as all files and sub-directories in its subdirectories?
(A) rm* (B) rm all
(C) rm -r* (D) rm*.*
- Which shell's wild-cards is used to match a single character?
(A) * (B) ?
(C) ! (D) #
- Which command is used to sort the lines of data in a file in reverse order?
(A) sort (B) st
(C) sh (D) sort -r
- A file with permission status of RWXR_XR__ indicates
(A) The owner has all permissions, the group has only Read permissions.
(B) The owner has only Read and Execute permissions.
(C) The owner has all permissions, the group has only Read and Execute permissions.
(D) The group has all permissions, the owner has only Read and Execute permissions.
- Which command is used to display the end of the file?
(A) head -r (B) eof
(C) bof (D) tail
- The command which transcribes the standard input to the standard output and also makes a copy of the same in a file is _____.
(A) tee (B) sort
(C) tr (D) grep

- j. Which command is used to extract a specific column from the file?
(A) awk (B) cat
(C) sed (D) cut

Answer any FIVE Questions out of EIGHT Questions.

Each question carries 16 marks.

- Q.2** a. What is UNIX operating system? Explain the features of UNIX. (8)
b. What is the difference between internal and external commands? Explain with suitable examples. (4)
c. Explain the difference between cp and mv command with a suitable example. (4)
- Q.3** a. What do you understand by a file in UNIX operating system? Discuss the basic types of UNIX files in brief. (8)
b. What is vi editor? Explain the various operating modes of vi editor with a suitable diagram. (8)
- Q.4** a. Describe the working of wild-cards in shell programming. Explain the use *and ? wild-card with suitable examples. What happens when you use echo with only the * as argument? (8)
b. Explain the mechanism of process creation. Also, list the important attributes inherited by a child process. (8)
- Q.5** Write short notes on the following: (4×4)
(i) inode number (ii) Symbolic links
(iii) tail (iv) sort
- Q.6** a. Give an overview on grep command with a suitable example. Also, list the options used by grep command. (8)
b. Write short notes on the following: (4×2)
(i) Basic Regular Expression (BRE) (ii) sed
- Q.7** a. Write a script to determine whether given file exist or not, file name is supplied as command line argument, also check for sufficient number of command line argument. (8)
b. Devise a script that accepts two directory names, bar1 and bar2 and deletes those files in bar2 which are identical to their names in bar1. (8)
- Q.8** a. How we can split a line into fields using awk filter? Give a suitable example. (8)
b. List the built-in variables of awk filter with brief descriptions. (8)
- Q.9** a. What is perl? Write a program to convert the temperature from Centigrade to Fahrenheit using variables in perl. (8)
b. What is chop function in perl? Explain with a suitable example. (8)