

BCA (Honours) 3rd Semester Examination, 2022

Subject : Computer Application

Course : BCA-305

(UNIX and Shell Programming)

Time: 4 Hours

Full Marks: 80

*The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words
as far as practicable.**Answer Question No. 1 and any four from the rest.*

1. Answer any eight questions: 2×8=16
- (a) Define Shell.
 - (b) What do you mean by Kernel?
 - (c) Write the function of .profile file.
 - (d) What do you mean by external and internal UNIX Command?
 - (e) Write the function of exit command.
 - (f) Write the function of PATH variable.
 - (g) What do you mean by multi-user operating system?
 - (h) Give an example of multi-user operating system other than UNIX/LINUX.
 - (i) Write the difference between \$ and # prompt in UNIX.
 - (j) Write the functions of super-user in UNIX.
 - (k) "Everything in UNIX is file" — Justify.
 - (l) What do you mean by wildcard in UNIX?
2. (a) Compare Windows and UNIX Operating System.
 (b) Discuss Architecture of UNIX Operating System.
 (c) Write a Shell script to find the power of a given number. 4+7+5
3. (a) Discuss different modes of vi editor.
 (b) Write the functions of following commands:
 passwd, ls, who, cp, rm, cd
 (c) Write a Shell script to display the multiplication table of any number. 6+6+4
4. (a) Discuss different types of if statements in UNIX with example.
 (b) Write a Shell script to print a two-digit number to word.
 [eg. Input 25 8+8
 Output twenty five]

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(2)

5. (a) What do you mean by file filter? Explain grep and egrep command with example.
(b) Write the purpose of Pipe with example.
(c) Write a Shell script to find the permutation $P(n, x)$. 7+3+6
6. (a) Discuss File inode and inode structure.
(b) How does 'for' loop of Shell script differ from 'for' loop in 'C' programming language? Explain with example.
(c) Write the difference among the following: 8+5+3
(i) 'cal' and 'ncal' command
(ii) 'echo' and 'printf' command
(iii) 'break' and 'continue' statement
7. Write short notes on *any two*: 8×2=16
(a) 'chmod' command
(b) Positional parameters
(c) Logical and Arithmetic Operators for condition execution
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