



Enrollment No.....

## Faculty of Science

End Sem (Even) Examination May-2019

CA3EL13 Linux and Shell Programming

Programme: BCA

Branch/Specialisation: Computer  
Application**Duration: 3 Hrs.****Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. In Linux a user can load or upload **1**  
 (a) I/O Modules (b) I/O Devices  
 (c) Kernel Modules (d) File Base I/O
- ii. Linux is an **1**  
 (a) Closed Source (b) Freeware  
 (c) Open source software (d) Both (a) and (b)
- iii. What is maximum filename size in Linux in bytes? **1**  
 (a) 32 (b) 64 (c) 128 (d) 255
- iv. Command to create file in Linux is \_\_\_\_\_ **1**  
 (a) Touch (b) Cat (c) Echo (d) All of these
- v. Which filter is most powerful? **1**  
 (a) sed (b) awk (c) grep (d) cut
- vi. Which one of the following command is used for searching for a pattern in one or more file(s)? **1**  
 (a) cd (b) cp (c) paste (d) grep
- vii. In the shell, by default, all variables are considered and stored as **1**  
 (a) string (b) integer (c) character (d) float
- viii. What is the output of this program? **1**  

```
#!/bin/bash
san_var=10
echo "the value of \"san_var\" is $san_var"
exit 0
```

 (a) The value of "san\_var" is 10  
 (b) The value of is 10  
 (c) The value of san\_var is \$san\_var  
 (d) The value of "san\_var" is \$san\_var

- ix. How can you add Medi-caps, a new user, to you system? **1**  
 (a) Using useradd (b) Using adduser  
 (c) Using linuxconf. (d) All of these
- x. What protocol(s) is(are) allowed a user to retrieve her/his mail **1**  
 from the mail server to her/his mail reader?  
 (a) POP3 (b) FTP (c) MAP (d) All of these
- Q.2 i. What is an operating system. **2**  
 ii. Define history of Linux. **3**  
 iii. Explain the architecture of Linux. **5**  
 OR iv. What are the shell types in Linux? Explain. **5**
- Q.3 i. Write a short note on Background Processing. **2**  
 ii. Explain the following command with example :- **8**  
 (a) more (b) mv (c) pwd (d) file
- OR iii. What is System startup and shut-down process in Linux? Explain with suitable example. **8**
- Q.4 i. What is a super user in Linux. **4**  
 ii. What is sed? Explain the different purpose of sed with example. **6**  
 OR iii. Explain the usage and options of following command :- **6**  
 (a) grep (b) useradd (c) passwd
- Q.5 i. What is a shell script? Write process to write a shell script. **4**  
 ii. Write shell script to print the first 10 elements of Fibonacci series. **6**  
 OR iii. What is conditional control statements in Linux? Explain briefly. **6**
- Q.6 Attempt any two:  
 i. What is a domain name system in Linux? Explain briefly. **5**  
 ii. What is a distributed file system in Linux? Explain briefly. **5**  
 iii. What is a role of system administrator in Linux? Explain briefly. **5**

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## Marking Scheme

### CA3EL13 Linux and Shell Programming

Q.1	i.	In Linux a user can load or upload (c) Kernel Modules	1
	ii.	Linux is an (d) Both (a) and (b)	1
	iii.	What is maximum filename size in Linux in bytes? (d) 255	1
	iv.	Command to create file in Linux is _____ (a) Touch	1
	v.	Which filter is most powerful? (b) awk	1
	vi.	Which one of the following command is used for searching for a pattern in one or more file(s)? (d) grep	1
	vii.	In the shell, by default, all variables are considered and stored as (a) string	1
	viii.	What is the output of this program? (a) The value of "san_var" is 10	1
	ix.	How can you add Medi-caps, a new user, to you system? (a) Using useradd	1
	x.	What protocol(s) is(are) allowed a user to retrieve her/his mail from the mail server to her/his mail reader? (a) POP3	1
Q.2	i.	Definition of operating system.	2
	ii.	History of Linux.	3
	iii.	Architecture of Linux.	5
OR		Diagram	1 mark
		Explanation	4 marks
	iv.	Shell types in Linux 1 mark for each type	5 (1 mark *5)
Q.3	i.	Background Processing.	2
	ii.	Explain the command with example: 2 marks for each	8 (2 marks * 4)
OR	iii.	System startup process in Linux	2 marks
		Example	2 marks
		Shut-down process in Linux	2 marks

		Example.	2 marks	
Q.4	i.	Definition of super user in Linux.		4
	ii.	Definition of sed Purpose of sed Example.	2 marks 2 marks 2 marks	6
OR	iii.	Usage and options of commands 2 marks for each		6 (2 marks * 3)
Q.5	i.	Definition of shell script Process to write a shell script.	2 marks 2 marks	4
	ii.	shell script to print the first 10 elements of Fibonacci series. I/P Logic O/P		6 1 mark 4 marks 1 mark
	OR	iii.		6
		Conditional control statements in Linux Explanation Example		4 marks 2 marks
Q.6		Attempt any two:		
	i.	Domain name system in Linux		5
	ii.	Distributed file system in Linux		5
	iii.	Role of system administrator in Linux		5

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