General Instructions:

* Follow the instructions given in each section.
* Do not write anything on the question paper, except your roll no.
* Make sure that you attempt the questions in order.

**Section - A**

**(Q 1 to 10: Each question carries 1 mark)**

Q.1 Which option of the "nice" command is used to run a command with a specific priority value?

1. **-n**
2. -p
3. -c
4. -f

Q. 2. What is the purpose of the "elif" keyword in a Linux shell script?

1. To specify a nested if-else statement
2. **To specify an alternative condition to the original if statement**
3. To terminate the if-else statement
4. To specify a for loop

Q.3. What is the "dig" command used for in Linux?

1. To display the contents of a directory
2. To search for files on the system
3. **To query DNS servers for information about domain names and IP addresses**
4. To check the status of network interfaces

Q.4. Navish used cal command on terminal/shell. Which command should he use?

1. a calculator will be opened on shell
2. date and time will be displayed
3. **calendar of current month will be displayed**
4. None

Q.5. All processes have a parent process

1. False
2. **True**
3. Can’t be said
4. None

Q.6. Routing is performed by which of the following layers?

1. Transport Layer
2. Data Link Layer
3. Network Layer
4. **Session Layer**

**min**

Q.7. Which of the following command is used to print the route that a packet takes to reach the host? Host -google.com

1. ping google.com
2. **traceroute google.com**
3. ifconfig google.com
4. dig google.com

Q.8. Which of the following option is used to enforce it works in IPv6?

1. ping -4
2. ping -a
3. **ping -6**
4. ping -2

Q.9. What is used to specify the end of if block in script?

1. **fi**
2. }
3. Else
4. None

Q.10. What is the parent process of all the processes?

1. bash
2. **systemd**
3. ps
4. None

**Section - B**

**(Q 11 to 15: Each question carries 2 marks)**

Q.11. To check the nice value of a process called “apt”, what command will be used?

1. **ps -el | grep apt**
2. ps apt | grep
3. ps apt -el | grep
4. ps -tee | grep apt

Q.12. To set negative priority of ‘-10’ of a process called “top”, which command will be used?

1. **nice - -10 top**
2. nice -ne 10 top
3. nice 10 -ne top
4. none of the above

Q.13. How many kernels and shells are available in the UNIX environment?

1. There can be only one shell and one kernel.
2. **There can be multiple shells available, but there is only one kernel.**
3. There can be only one shell and multiple kernels.
4. There can be multiple shells and multiple kernels.

Q.14What will be printed on the screen when we run the following script? #! /bin/bash Name=Rohit Echo ‘$Name’

1. Rohit
2. **‘$Name’**
3. “Rohit”
4. Name

Q.15. The first line in a shell script is #! /bin/rm , What will happen if we run this script file?

1. Error will occur
2. **The file will be deleted**
3. Content of file will be displayed
4. None

**Section – C**

**(Q 16 to 19: Each question carries 5 marks)**

Q.16. Sometimes, you want to change the priority of a shell script, either lowering its priority. How can you change the priority of a shell script?

Q.17. Write a shell script program to check if a number is greater than 20 or not.

Q.18. Explain Conditional Statements in the shell programming.

Q.19. What is the cal command used for and what are various options that

can be used?