

G 601.6

(2017-2018 Batch)

Reg. No.

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**St Aloysius College (Autonomous)
Mangaluru**

B.C.A. Semester VI – Degree Examination

August / September 2021

LINUX AND SHELL PROGRAMMING

Time: 3 hrs.

Max Marks: 100

PART – A

Answer any **TEN** of the following.

(10x2=20)

1. a) Define operating system.
- b) Explain process id.
- c) What is Swap Space?
- d) What is the GUI?
- e) What are file permissions in Linux?
- f) How to exit from vi editors?
- g) What is Linux Kernel?
- h) What is the use of 'grep' command?
- i) Differentiate the commands mv and cp.
- j) What is the purpose of * special character?
- k) What do you mean by chmod 755 f1.txt?
- l) What are Pathnames?

PART – B

Answer any **FOUR** of the following.

(4x5=20)

2. Linux is free and open source software. Explain.
3. Explain briefly different operation in Input mode.
4. What are the various applications of Linux OS?
5. What is the use of grep command? Explain with an example.
6. Explain the steps in installation and uninstallation Deb files.
7. Explain Searching and Substitution in Vim files.

PART – C

Answer any **ONE FULL** question from each unit.

(15x4=60)

UNIT – I

8. a) Explain the RPM and DEB distributions of Linux. (8)
- b) With a neat diagram, explain the components of Linux Kernel. (7)
9. a) Explain the opportunities in Linux and its Advantages (8)
- b) Write the steps involved in Booting from Hard Disk. (7)

UNIT – II

10. a) What do you mean by directory and ordinary files? Explain briefly. (8)
- b) Explain the commands used for communicating with others (7)

Contd...2

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- 11.a) With an example, explain access permission and its different types. (8)
- b) With an example, explain the hierarchical file system. (7)

UNIT - III

- 12.a) Explain Reading and writing of files in Vim editor. (8)
- b) Explain the different commands used for reading and writing files. (7)
- 13.a) Write a note on General Purpose buffer (8)
- b) What are the different special characters used in search strings?
Explain in detail. (7)

UNIT - IV

- 14.a) Explain briefly redirecting standard error (8)
- b) Describe various list of the control operator with example. (7)
- 15.a) What do you mean by a process? Explain process structure and
process identification. (8)
- b) What do you mean by User Created variables? Explain. (7)

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B.C.A. Semester VI – Degree Examination
August / September - 2021

MOBILE COMMUNICATION

Time: 3 hrs.

Max Marks: 100

PART – A

Answer any TEN of the following.

(10x2=20)

1. a) What are hidden terminals?
- b) What is TDMA?
- c) What is the use of polling?
- d) Expand: GPRS and GPS.
- e) What is HLR?
- f) What are the two variants of Wireless Networks?
- g) What is HIPERLAN?
- h) Define piconet?
- i) What is a Home network in a mobile IP network?
- j) What is DHCP?
- k) What is fast recovery?
- l) Why timeout freezing is used?

PART – B

Answer any FOUR of the following.

(4x5=20)

2. How is TDMA different from FDM? Explain.
3. Explain what happens during roaming.
4. What are ad-hoc networks in the context of wireless networks?
5. Explain any four requirements for location management in WATM.
6. Explain the concept of tunneling and encapsulation in a mobile IP network?
7. What is the use of transaction-oriented TCP? Explain.

PART – C

Answer any ONE FULL question from each unit.

(15x4=60)

UNIT – I

8. a) How is wireless network different from CSMA/CD? Explain. **(8)**
- b) Explain the classical Aloha scheme. **(7)**
9. a) Explain the GSM architecture with a neat diagram. **(8)**
- b) How does DVB work? Explain. **(7)**

UNIT – II

10. a) Briefly explain the system architecture of IEEE 802.11 WLAN **(8)**
- b) Explain infrastructure based network in the context of wireless network. **(7)**

Contd...2

- 11. a) Explain the Bluetooth piconet network architecture. (8)
- b) Explain any four requirements for location management in WATM. (7)

UNIT - III

- 12. a) Explain any 4 entities in the mobile IP network architecture? (8)
- b) Why is reverse tunneling needed in a mobile IP network? (7)
- 13. a) Explain the features of IPv6. (8)
- b) Write a note on routing. (7)

UNIT - IV

- 14. a) What is congestion control and how does TCP handle congestion? (8)
- b) What is the use of transaction-oriented TCP? Explain. (7)
- 15. a) Briefly explain the WAP architecture. (8)
- b) Explain the working of Wireless datagram protocol. (7)
