



T060

Friday, 23/7/2021

08:30 – 11:30 AM

Names:

Index number

TVET NATIONAL EXAMINATIONS, RTOF LEVEL 5, 2020-2021

QUESTIONS and ANSWERS BOOKLET

OPTION / TRADE : NETWORKING

SUBJECT : NETWORK AND SYSTEM ADMINISTRATION

ACADEMIC YEAR: 2020-2021

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TVET NATIONAL EXAMINATION, RTQF LEVEL 5, 2020-2021

INSTRUCTIONS TO CANDIDATES: PART I (Answer Booklet)

1. A candidate should fill in the actual names and the index number on the cover of this questions and answer booklet on the provided place (Black Box).
2. It is illegal for a candidate to write any of his/her names, index number or a school name inside the answer booklet.
3. A candidate should check if all pages of the answer booklet are complete. No candidate should remove or tear any pages or part of it from the answer booklet.
4. A candidate should answer in the language in which the examination is set. (See page **(ii)**)
5. A candidate should sign on the sitting plan when submitting the answer booklet. He/she has also to check if the answer booklet is well sealed.
6. No extra paper is allowed in the examinations room. If a candidate is caught with it his/her results will be nullified.
7. No candidate is allowed to write answers not related to the subject being sat for, otherwise it will be considered as a cheating case.
8. Write your answers on the 12 lined pages (From page 1 of 12 to page 12 of 12).
9. Use the last non-lined pages as draft.
10. Results for any candidate who is caught in examination malpractices are nullified. The cheating can be recognized during examinations administration, marking exercise or even thereafter.

TVET NATIONAL EXAMINATION, RTQF LEVEL 5, 2020-2021

OPTION/TRADE: NETWORKING

Subject: Network and System Administration

DURATION: 3 hours

INSTRUCTIONS TO CANDIDATES: PART II (Question paper)

The paper is composed of two (2) main Sections as follows:

Section I: Attempt all the Twelve (12) questions (60 marks)

Section II: Attempt any Four (4) questions out of Six (6) (40 marks)

Allowed materials:

- Ruler and square
- Calculator

Note:

Every candidate is required to carefully comply with the provided assessment instructions.

Section I: Attempt all the Twelve (12) questions**(60 marks)**

01. Give and explain windows server startup types. **(5 marks)**
02. Differentiate Server from window server. **(5 marks)**
03. (a) What is sever Roles in window server?
- (b) Give and explain three Windows Server Roles services **(5 marks)**
04. Choosing the right backup method is one of the most important decisions you need to make when protecting your business-critical data. Mention any five(5) common backup media solution. **(5 marks)**
05. Copy and Match the following disaster risks with their corresponding definitions by writing the right Letter (A, B, H, ...) in the column of Answers. **(5 marks)**

| Answers | Disaster Risks | Definitions |
|---------|-----------------------|--|
| | 1. External Risk | A. Are risks that affect only local facilities |
| | 2. Civil | B. Are those related to the use of shared infrastructure, such as networks, file servers, and software applications that could impact multiple departments. |
| | 3. Data Systems Risks | C. These disasters include acts of terrorism, sabotage, virus attacks, operations mistakes, crimes, and so on. |
| | 4. Structural | D. Are the failures within specific departments |
| | 5. Facility Risks | E. Are those that cannot be associated with a failure within the enterprise. |
| | | F. Are those related to design flaws, defective material, or poor-quality construction or repairs. |
| | | G. Are related to the location of the business facilities. Such risks include labor disputes ending in strikes, communal riots, local political instability. |

06. As a systems administrator, how would you categorize data systems risks based on relative weights? **(5 marks)**
07. Choose the correct answer(s): **(5 marks)**
1. What are the three main security services do IPSec VPN provide? (Select three.)
- A) Peer Authentication
 - B) Data Confidentiality
 - C) Remote login
 - D) Data Integrity

2. Which two WAN encapsulations can be configured on an asynchronous serial connection? (choose two)

- A) ATM
- B) HDLC
- C) PPP
- D) SDLC

08. Provide TCP/IP properties used in external DSL installation. (5 marks)

09. Identify possible problems that need to be verified and troubleshoot during a DSL Network installation. (5 marks)

10. Choose the correct answer(s): (5 marks)

1. The purpose of backup is:

- a) To restore a computer to an operational state following a disaster
- b) To restore small numbers of files after they have been accidentally deleted
- c) To restore one among many versions of the same file for multiple backup environment
- d) All of the mentioned

2. Which of the following backup technique is most space efficient?

- a) Full backup
- b) Incremental backup
- c) Differential backup
- d) All of the mentioned

3. In simple terms, Disaster Recovery Plan is:

- a) A plan used when the main computer systems fails
- b) Prepared to deal with natural disasters only
- c) For backup data only
- d) Plan for business continuity only

4. Which of the following techniques can be used for optimizing backed up data space?

- a) Encryption and Deduplication
- b) Compression and Deduplication
- c) Authentication and Deduplication
- d) Deduplication only

5. Which of the following can be used for reducing recovery time?

- a) Automatic failover
- b) By taking backup on a faster device
- c) Taking multiple backups – one in same location, another at different location
- d) All of the mentioned

11. Network technology is a mechanism by which two or more computer systems are connected together to communicate, share information and resources between each other. From this point of view, make a distinction between an intranet and extranet.

(5 marks)

12. Choose the correct answer(s):

(5 marks)

1. _____ allows you to connect and login to a remote computer.

- A) Telnet
- B) FTP
- C) HTTP
- D) None of the mentioned

2. Which of the following are true in regards to WAN technologies? (Select three.)

- A) A router is typically considered a DCE device.
- B) A router is typically considered a DTE device.
- C) A modem is used to connect to an analog line.
- D) A CSU/DSU is used to connect to an analog line.
- E) A CSU/DSU is used to connect to a digital line.
- F) A modem is used to connect to a digital line.

3. The correct syntax to be written in the web browser to Telnet to www.sanfoundry.com is?

- A) telnet//www.sanfoundry.com
- B) telnet:www.sanfoundry.com
- C) telnet://www.sanfoundry.com
- D) telnet www.sanfoundry.com

- 13.** Describe the following terms: **(10 marks)**
- a) Floppy disks
 - b) Magneto optical and floptical disks
 - c) Optical disks
 - d) Hard drives and disks
 - e) Magnetic tapes
- 14.** You want to change the IP address of your computer server statically. List required steps needed to Assign IP address statically. **(10 marks)**
- 15.** The Rwanda Technical Teacher Training Centre (RTTI) is seeking a disaster recovery specialist to prepare for them a disaster recovery plan. The disaster recovery plan should provide detailed procedures to restore the system or system components. As an IT disaster recovery analyst, identify the IT service damage recovery procedures in a simple step-by-step format. **(10 marks)**
- 16.** Mention and explain different types of backup. **(10 marks)**
- 17.** Discuss the following WAN protocols and technologies. **(10 marks)**
- A) HDLC
 - B) SDLC
 - C) PPP
 - D) LAPB
 - E) Frame-Relay
- 18.** Information can be exchanged in different ways accross the network. As a student of level five networking, how would you classify the different types of network applications by their functions? **(10 marks)**

