

TVET NATIONAL EXAMINATIONS, LEVEL 5, 2022-2023

INSTRUCTIONS TO CANDIDATES (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.
2. It is illegal for a candidate to write any of names, Index number or school name inside the answer booklet.
3. No candidate should remove or tear any pages or part of it in the answer booklet.
4. A candidate should answer in the language in which the examination is set.
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 16 lined pages (From page 7 to page 22).
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.

- N.B:** 1) After results publication, there is no remarking and no candidate is given his/her answer booklet for review. This answer booklet is a property of NESAS.
- 2) Claims are only received online within 30 days after results publication. A link will be provided after results publication.

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OPTION/TRADE: NETWORKING

SUBJECT/EXAM: NETWORK AND SYSTEM ADMINISTRATION

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES (QUESTION PAPER)

This Exam paper is composed of Three Sections (A, B, and C). Follow the instructions given below, and answer the indicated questions for a total of 100 marks

Section A: Fourteen (14) questions, all **Compulsory 55 marks**

Section B: Among the five (5) questions, attempt any three (3) 30 marks

Section C: Among the two (2) questions, attempt any one (1) 15 marks

Allowed materials:

- **Blue** or black **pen**
- **Mathematical set**

Note:

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

SECTION A: Attempt all questions

(55 marks)

01. Read the below statements and answer by **True(T)** or **False(F)**. **(3marks)**

- a) Windows Server is a group of operating systems designed by Netware that supports enterprise-level management, data storage, applications, and communications.
- b) The Window Server Standard edition is designed for small-to-medium-sized organizations.
- c) Server roles are related sets of software components that allow servers to perform a specific function for users and other computers on networks.

02. List any five (5) benefits of backup software. **(5marks)**

03. Where does WAN operate on OSI model? **(3marks)**

04. Identify any three (3) data migration requirements for windows server. **(3marks)**

05. Enumerate any five (5) types of devices that are specific to WAN environments. **(5marks)**

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- 06.** What do you understand by the following terms: **(3marks)**
- a) Remote site,
 - b) Network applications,
 - c) Network Analysis.
- 07.** Remote Desktop Software is a tool that uses Virtual Network Computing (VNC) to allow one computer to remotely access and control another computer over a network connection. List any four (4) software's tools used for remote desktop. **(4marks)**
- 08.** WAN technologies are either circuit-switched or packet-switched. Explain both terms. **(4marks)**
- 09.** State and explain any five (5) factors to consider while Selecting the Backup Devices and Media. **(5marks)**
- 10.** Explain DHCP Server and give two (2) of its benefits. **(5marks)**
- 11.** Identify the advantages and disadvantages of using a USB stick for Backup. **(4marks)**

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12. Point-to-point lines are usually leased from a service provider. **(5marks)**

What are any three (3) advantages and disadvantages of Leased lines?

13. Identify the four (4) steps for securing files and folders on windows server. **(4marks)**

14. Explain any five (5) services provided by the server role (ADDS). **(5marks)**

Section B: Attempt any three (3) questions **(30 marks)**

15. Identify Data migration requirements for windows server. **(10marks)**

16. Differentiate Windows Server Standard Edition from Windows Server Essentials Edition. **(10marks)**

17. Discuss the steps for troubleshooting WAN networks. **(10marks)**

18. Describe any two (2) types of VPN connection. **(10marks)**

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19. a) What should be considered while choosing WAN Technologies? **(3marks)**
- b) Describe any two (2) WAN technologies currently in use in Rwanda. **(7marks)**

Section C: Attempt only one (1) question

(15 marks)

20. Provide a WAN network diagram that connects three different LANs using frame-relay switch and label each element. **(15marks)**
21. Discuss on windows server built-in monitoring tools. **(15marks)**

END OF ASSESSMENT