



T062

Thursday, 29/7/2021

08:30 – 11:30 AM

Names: _____
Index number: _____

TVET NATIONAL EXAMINATIONS, RTQF LEVEL 5, 2020-2021

QUESTIONS and ANSWERS BOOKLET

OPTION/ TRADE : **NETWORKING**

SUBJECT : LAN SETUP AND NETWORK MAINTENANCE

ACADEMIC YEAR: 2020-2021

Read carefully the instructions on page (i) 8; (ii)

MESA 2021 MESA 2021 MESA 2021 MESA 2021 MESA 2021 MESA 2021 MESA 2021 MESA 2021

[illegible]



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: LAN Setup and Network Maintenance

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)

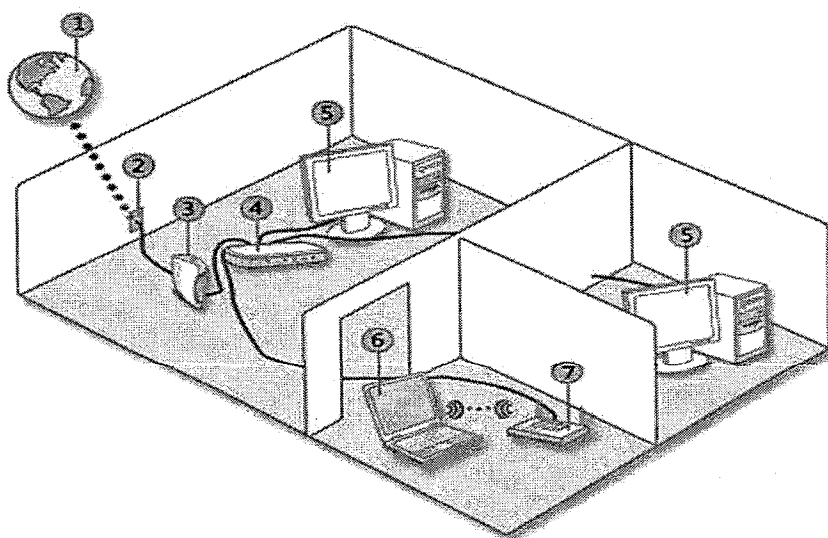
Allowed materials:

- Ruler and square
- Calculator

Note:

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

- 01.** Differentiate network maintenance from network troubleshoot. **(5 marks)**
- 02.** One way of securing a network is through the use of passwords. What can be considered as good passwords? **(5 marks)**
- 03. a)** What is operating system? **(2 marks)**
- b)** List three (3) functions of operating system. **(3 marks)**
- 04.** List five (5) tasks performed by firewalls. **(5 marks)**
- 05.** State five (5) examples of computer network devices. **(5 marks)**
- 06.** Name five (5) common types of network protocols. **(5 marks)**
- 07. a)** What is the maximum length allowed for a UTP cable? **(5 marks)**
- b)** What are the advantages of optic fibers? **(5 marks)**
- 08.** The ping command is configurable from normal executive and privileged EXEC mode, state and explain five (5) ping returns responses. **(5 marks)**
- 09.** Name the parts of the network below accordingly: **(5 marks)**



10. Differentiate NIC from MAC.

(5 marks)

11. a) Give at least three (3) purposes of Network Adapter/Network Interface card.

b) What are the two (2) types of Network Adapter/Network Interface card?

(5 marks)

12. What are the benefits of preventive maintenance?

(5 marks)

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

- 13. a)** What is VPN or Virtual Private Network? **(2 marks)**
- b)** Give at least four (4) reasons for using a VPN. **(4 marks)**
- c)** What are two (2) common types of VPN? **(4 marks)**
- 14.** Explain briefly the function of each of the following network protocols: **(10 marks)**
- a) HTTP
 - b) TCP
 - c) SMTP
 - d) DHCP
- 15.** Given the network address 192.168.10.0 using the subnet mask 255.255.255.192. **(10 marks)**
- a) How many subnets?
 - b) How many hosts per subnet?
 - c) What are the valid subnets?
 - d) What's the broadcast address for each subnet?
 - e) What are the valid hosts for each subnet?
- 16.** A physical topology defines the way in computers, printers and hosts are connected to a network. A logical topology describes how the hosts access the medium and communication on the network. Explain and draw diagram for 3 physical topologies on your choice. **(10 marks)**
- 17.** What are the functions of the following network hardware components? Indicate at which OSI reference model they refer to. **(10 marks)**
- a) Hub
 - b) Gateway
 - c) Switch
 - d) Bridge
 - e) Router
- 18.** Demonstrate the network maintenance procedures at the workplace. **(10 marks)**

Do not write anything on this page !

