

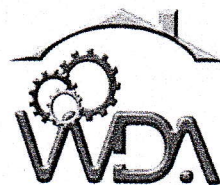
CEL – Networking

T010

Thursday, 22/11/2018

08:30 – 11:30 AM

WORKFORCE DEVELOPMENT AUTHORITY



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**ADVANCED LEVEL NATIONAL EXAMINATIONS, 2018,
TECHNICAL AND PROFESSIONAL STUDIES**

EXAM TITLE: NETWORKING

OPTION: Computer Electronics (CEL)

DURATION: 3 hours

INSTRUCTIONS:

The paper is composed of **three (3) main Sections** as follows:

Section I: Twenty (20) compulsory questions. 55 marks

Section II: Attempt any three (3) out of five questions. 30 marks

Section III: Attempt any one (1) out of three questions. 15 marks

Note:

Every candidate is required to carefully comply with the above instructions. Penalty measures will be applied on their strict consideration.

Section I. Twenty (20) Compulsory questions

55 marks

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01. What is topology? Give the distinction between Physical and Logical Topology. **(3 marks)**
02. Define the following networking terms: Workstation, DHCP, Ethernet, NIC and NOS. **(5 marks)**
03. What is the difference between wired LAN and Wireless LAN? **(3 marks)**
04. What is a firewall and what is the importance of it? **(3 marks)**
05. What do you mean by data communication? **(2 marks)**
06. Compare analog and digital signals? **(2 marks)**
07. What are the advantages of fiber optics cable? **(3 marks)**
08. What is the difference between baseband and broadband? **(3 marks)**
09. What do you mean by Simple Mail Transfer Protocol? **(2 marks)**
10. What is World Wide Web? *It is used to transfer Email* **(2 marks)**
11. What is backbone network? *On the network* **(2 marks)**
12. What are proxy servers and how do they protect computer networks? **(3 marks)**
13. What is tracert? **(2 marks)**
14. What are the functions of a network administrator? **(3 marks)**
15. Suppose that you need to connect two computers for file sharing. Is it possible to do this without using a hub or router? If yes, how can you do this? **(3 marks)**
16. What is the equivalent layer or layers of the TCP/IP Application layer in terms of OSI reference model? **(3 marks)**
17. What is OSI and what role does it play in computer networks? **(3 marks)**
18. After explaining what encryption is, give its importance on a network. **(3 marks)**

19. When troubleshooting computer network problems, what common hardware-related problems can occur? **(3 marks)**
20. How does dynamic host configuration protocol aid in network administration? **(2 marks)**

Section II. Choose and answer any three (3) questions. 30 marks

21. Establish the relationship and the difference between EIGRP and IGRP. **(10 marks)**
22. Give and explain the various elements that make up a network. **(10 marks)**
23. Explain different types of computer networks. **(10 marks)**
24. Give the difference between Static routing and dynamic routing. **(10 marks)**
25. Explain the basic characteristics of the TCP protocol. **(10 marks)**

Section III. Choose and answer any one (1) question. 15 marks

26. a) What are proxy servers and how do they protect computer networks?
b) Why do you use a Proxy?
c) How to Setup a Proxy Internet Explorer? **(15 marks)**
27. List the required LAN installation equipment. **(15 marks)**
28. What is the point to point and multipoint connection in networking? **(15 marks)**