

NRIC No./FIN

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National ITE Certificate National ITE Certificate in Technology

NETWORK ESSENTIALS
(IT2103FPR / IT2103FP / IT2103TT)

THEORY PAPER

1 HOUR

SAMPLE A

INSTRUCTIONS TO CANDIDATES

- 1 Do **not** open this question paper until you are told to do so.
- 2 Write your **NRIC No./FIN** clearly at the top right-hand corner on the required pages of this question paper.
- 3 Indicate your answers on the optical answer sheet provided.
- 4 Return this question paper at the end of the exam.



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*This question paper consists of 6 printed pages.
(excluding cover page)*

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Answer **all** the questions. 30 marks (1 mark per question).

Choose the correct answer and shade your choice on the separate optical answer sheet.

- 1 Which one of the following is NOT recommended in the guideline for hostname naming conventions?
 - (A) Contain spaces.
 - (B) Start with a letter.
 - (C) Ends with a letter or digit.
 - (D) Be less than 64 characters in length.

- 2 Each end device on a network must be configured with an
 - (A) IP address.
 - (B) Key address.
 - (C) User address.
 - (D) Device address.

- 3 The purpose of a subnet mask is to determine
 - (A) a private address.
 - (B) a specific network.
 - (C) the network portion of an address.
 - (D) the 32 binary number of an IP address.

- 4 One of the most widely used LAN technologies is
 - (A) Ethernet.
 - (B) Extranet.
 - (C) Internet.
 - (D) Intranet.

- 5 A network specialist has configured a router with the IP address 172.16.2.1/23 on Ethernet0. Which one of the following can be applied as a valid host ID on the LAN interface attached to the router?
 - (A) 172.16.1.100.
 - (B) 172.16.1.198.
 - (C) 172.16.2.2.
 - (D) 172.16.3.255.

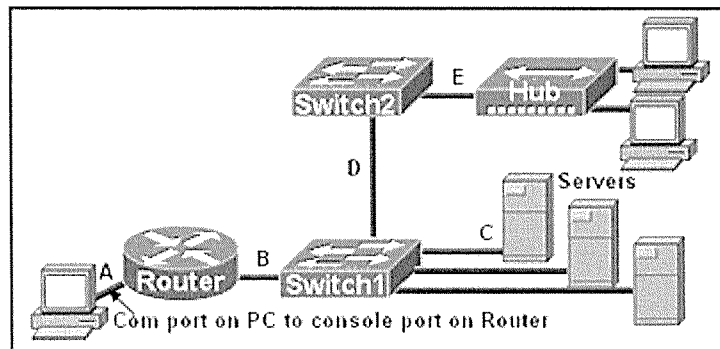
- 6 A user enters **http://www.ite.com/web1.htm** in the address line of a browser. Which one of the following statements is true?
 - (A) The "web1.htm" is the specific server name.
 - (B) The retrieved web page will be displayed in URL code.
 - (C) The "http" portion indicates the protocol that is being used.
 - (D) The "www.ite.com" is the name of the web page file that is called.

- 7 There are three layers in the OSI reference model when it is compared to the Application layer of the TCP/IP reference model. They are Application,
- (A) Data link and Physical.
 - (B) Transport and Network.
 - (C) Presentation and Session.
 - (D) Transport and Presentation.
- 8 A host has an empty ARP cache. The next step a host will take to find the destination MAC address of a remote host is to send an ARP request as a
- (A) unicast to the server.
 - (B) unicast to the destination.
 - (C) broadcast to all hosts in the Internet.
 - (D) broadcast to all hosts in the local network.
- 9 Beside connecting the PC to the network media, a NIC
- (A) checks the formatting of user data before it is transmitted.
 - (B) acknowledges and retransmits application data that was not received properly.
 - (C) discards frames when the destination IP address does not match the local host.
 - (D) passes frames to the next OSI layers when destination MAC address matches the local host.
- 10 Which one of the following network devices is recognized as a default gateway to the local network?
- (A) Hub.
 - (B) Router.
 - (C) Switch.
 - (D) Network printer.
- 11 Router# **reload**
Proceed with reload? [confirm]
- *Apr 19 50:45:28.159: %SYS-5-RELOAD: reload requested by console. Reload reason: Reload command.

Fig 121

- An administrator made several changes to the configuration of some routers. The reload command was finally used as shown in Fig 121. What was the result of this configuration?
- (A) The changes were lost and the configuration file in RAM would be loaded.
 - (B) The changes saved to the configuration file in RAM would be reloaded.
 - (C) The changes saved to the configuration file in NVRAM would be reloaded.
 - (D) The changes were lost and the configuration file in NVRAM would be loaded.
- 12 Which one of the following cable is **NOT** a copper media cable?
- (A) Optical fiber.
 - (B) Coaxial cable.
 - (C) Shielded-twisted pair.
 - (D) Unshielded-twisted pair.

- 13 Which one of the cabling uses the Cat 5e Cabling Standards?
- (A) Coaxial cable.
 - (B) Optical fiber.
 - (C) Shielded twisted pair cable.
 - (D) Unshielded twisted pair cable.
- 14 Which one of the following is **NOT** a wireless medium?
- (A) RJ45.
 - (B) Wi-Fi.
 - (C) Wi Max.
 - (D) Bluetooth.



15

Fig 133

The cable connections between the devices labeled A, B, C, D and E of a network are shown in Fig 133. What are the correct cables to be used?

- (A) A= straight-through, B= rollover, C= straight-through, D= crossover, E= crossover.
 - (B) A= rollover, B= straight-through, C= straight-through, D= crossover, E= straight-through.
 - (C) A= rollover, B= straight-through, C= straight-through, D= crossover, E= crossover.
 - (D) A= straight-through, B= crossover, C= rollover, D= straight-through, E= straight-through.
- 16 Which of the following describe a TCP protocol?
- (A) Stateful.
 - (B) Unreliable.
 - (C) Connectionless.
 - (D) No flow control.
- 17 The routing table entries of a router when configured manually provides
- (A) static routing.
 - (B) subnet masking.
 - (C) dynamic routing.
 - (D) direct connection.

- 18 Which one of the following is a benefit of Cloud Computing?
- (A) Rapid Deployment.
 - (B) Licensing new software.
 - (C) Training new personnel.
 - (D) Investment in new infrastructure.
- 19 Which of the following terms is a representation of Local Area Networks (LAN) and Wide Area Networks (WAN) when they are connected together?
- (A) Internetworks.
 - (B) Storage Area Networks.
 - (C) Personal Area Networks.
 - (D) Metropolitan Area Networks.
- 20 What is added to the packet data unit (PDU) before a packet can travel through the networks and reach its destination?
- (A) IP header.
 - (B) Static Route.
 - (C) Routing table.
 - (D) Segment header.
- 21 A Server is hosting a video file across the network while providing mail server functionality to the users. Which feature must be used by the server without the video hosting using up all the available bandwidth?
- (A) Multiplexing.
 - (B) Flow Control.
 - (C) Port Numbers.
 - (D) Acknowledgement Numbers.



Fig 153

22

When the computers as shown in Fig 153 are set up in a Peer-to-Peer network, PC2 is configured as a

- (A) Monitor.
 - (B) Print server.
 - (C) Web server.
 - (D) KVM switch.
- 23 Wireless LAN is gaining in popularity because of its
- (A) mobility.
 - (B) security.
 - (C) high security.
 - (D) low initial investment in infrastructure.

- 24 Integrated routers provides the functions of a switch, router and wireless access point, and is commonly used by
- (A) banks.
 - (B) Internet Service Providers.
 - (C) home networks and small offices.
 - (D) large enterprises and governments.
- 25 A Technician has been tasked to secure the Wireless LAN, which one of the following security protocols will be the best defense against attack?
- (A) Pre Shared Key.
 - (B) Wi-fi Protected Access.
 - (C) Wired Equivalent Privacy.
 - (D) Open System Authentication.
- 26 A common industry practices in eliminating single point of failure on networking equipment is to
- (A) change server.
 - (B) implement redundancy.
 - (C) send for regular service.
 - (D) backup all data and records.
- 27 The network engineer needs to verify the type of physical connection installed on his router. Which of the following router command display the information he requires?
- (A) Show all.
 - (B) Show ip route.
 - (C) Show interface.
 - (D) Show configuration terminal.
- 28 Which of the following commands allow user to verify the physical address of the PC network adapter card?
- (A) Ipconfig
 - (B) Ipconfig/all
 - (C) Ipconfig/renew
 - (D) Ipconfig/release
- 29 What is the first step used by a help desk technician to help the customer resolve the problem?
- (A) Define the problem.
 - (B) Analyze Network conditions.
 - (C) Using remote desktop tool to fix problem.
 - (D) Dispatched on-site technician to perform repairs immediately.
- 30 Which one of the following is a necessary skill in successful help desk communication?
- (A) Responsible to open a trouble ticket.
 - (B) Not required to diagnose any problem.
 - (C) Not necessary to log the call as it wastes time.
 - (D) Giving instruction without hearing out customer complains.

*** End ***

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