**INFORMATION TECHNOLOGY CONCEPTS**

**(391)**

**OPEN EVENT—**

REGIONAL – 2020

DO NOT WRITE ON TEST BOOKLET

Multiple Choice & True/False (50 @ 2 points each)

***TOTAL POINTS \_\_\_\_\_\_\_\_ (100 points)***

**Failure to adhere to any of the following rules will result in disqualification:**

1. **Contestant must hand in this test booklet and all printouts. Failure to do so will result in disqualification.**
2. **No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests or facsimile (handwritten, photocopied, or keyed) are allowed in the testing area.**
3. **Electronic devices will be monitored according to ACT standards.**

No more than ten (10) minutes orientation

No more than ninety (90) minutes testing time

No more than ten (10) minutes wrap-up

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*Workplace Skills Assessment Program* competition.

**Choose the *best* answer to the following questions.**

1. Which WLAN IEEE standard has a top speed of 54Mbps using the frequency of 2.4GHz?
   1. 802.11A
   2. 802.11B
   3. 802.11G
   4. 802.11N

1. What is an Operating System?

* 1. The programs that manage the systems hardware resources

* 1. The Internet Service Provider

* 1. Software that supports the computer's basic functions

* 1. The software that developers use to compile computer languages

1. How many pins do IDE connectors have?
   1. 25
   2. 50
   3. 100
   4. 40

1. What is the standard size motherboard for desktop computers?

* 1. ATX

* 1. ITX

* 1. BTX

* 1. FTX

1. A Blu-Ray Disc can store up to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of data.

* 1. 20GB

* 1. 35GB

* 1. 12GB

* 1. 50GB

1. Which of the following protocols uses both TCP and UDP?
   1. FTP
   2. DNS
   3. POP3
   4. SMTP
2. Which url would lead to a banking secure site?
   1. <http://www.bankingonline.com/secure>
   2. <https://www.bankingonline.com>
   3. http.s://[www.bankingonline.com](http://www.bankingonline.com)
   4. <http://secure.www.bankingonline.com>

1. The OSI (Open Systems Interconnection) Model contains how many layers?

* 1. 1

* 1. 7

* 1. 3

* 1. 11

1. You connect your laptop to a public network at the local coffee shop. Which online task is **NOT** recommended to do when connected to an unfamiliar public network?
   1. Checking online banking information
   2. Sending out a Tweet
   3. Streaming a Twitch Channel
   4. Uploading a YouTube Video

1. What software application is used to create logos for businesses?

* 1. Microsoft Word

* 1. Google Sheets

* 1. Adobe Illustrator

* 1. Discord

1. How many volts could fry most PC integrated circuits?

* 1. 200

* 1. 30

* 1. 1000

* 1. 200

1. In SQL, which command(s) allow you to remove an index or domain index from the database?
   1. ALTER INDEX
   2. DROP INDEX
   3. REMOVE INDEX
   4. DELETE INDEX
2. What type of extinguisher should be used to put out a computer fire?
   1. Class B Extinguisher
   2. Class A Extinguisher
   3. Class C Extinguisher
   4. Class K Extinguisher

1. Where do users enter data into a Microsoft Excel Spreadsheet?

* 1. Tab

* 1. Cell

* 1. Box

* 1. Square

1. What is the main purpose of a computer firewall?

* 1. Security

* 1. Authentication

* 1. Hardware Monitoring

* 1. Internet Connection

1. Which device is **not** considered a secondary storage device?

* 1. Solid State Drive

* 1. Hard Disk Drive

* 1. M.2

* 1. RAM

1. What programming language is used to create web pages and web sites?

* 1. C++

* 1. HTML

* 1. Python

* 1. Swift

1. Which OS is **not** an Android Operating system?

* 1. Cookie

* 1. Ice Cream sandwich

* 1. KitKat

* 1. Oreo

1. Binary is also known as Base \_\_\_\_\_\_\_\_\_\_\_\_\_?
   1. 2
   2. 8
   3. 16
   4. 32
2. What type of network is used to combine multiple local area networks in a larger geographical area?
   1. PAN
   2. LAN
   3. WAN
   4. CAN
3. If you want to remove the executable permission from a user and assign a read permission to others for a file called “letter”, what command would you use?
   1. Chmod go + r, u + x letter
   2. Chmod u - x, go + r letter
   3. Chmod go + x, u - x letter
   4. Chmod g - x, uo + r letter

1. Which of the following is **not** an operating system?

* 1. Linux

* 1. Windows

* 1. Mac

* 1. C

1. What program is an example of a Voice over Internet Protocol, also known as a VOIP?

* 1. Microsoft Excel

* 1. Google Docs

* 1. Skype

* 1. Adobe Photoshop

1. What is it called when you are in the second phase of software testing, this is where a sample is introduced to the intended audience?
   1. Pilot Testing
   2. Alpha Testing
   3. System Testing
   4. Beta Testing

1. CPU, also known as the Central Processing Unit, is usuallly made up of what type of material?

* 1. Silver

* 1. Aluminium

* 1. Copper

* 1. Silicon

1. You are asked to set a trunk port on a 2960 switch, what command will you use?
   1. Trunk on
   2. Trunk all
   3. Switchport trunk on
   4. Switchport mode trunk
2. During the fusing process, toner is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:
   1. High pressure sprayed onto the paper
   2. Electronically bonded to the paper
   3. Melted into the paper
   4. Glued to the paper

1. The CPU has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ components to allow it to function correctly?

* 1. 1

* 1. 2

* 1. 3

* 1. 4

1. What is the maximum frequency range for an IEEE 802.11a standard?
   1. 2.4Gbps
   2. 5Gbps
   3. 2.4GHz
   4. 5GHz
2. The IP address 171.10.200.254 is considered what class of IP address?
   1. Class A
   2. Class B
   3. Class C
   4. Class D
3. In Linux Command line, which option when using the rm command is used to remove a directory, including all of its subdirectories within the directory?
   1. -b
   2. -o
   3. -r
   4. -p
4. You have a laser printer that needs servicing because of a printing problem. After you service a laser printer, you notice that the printer is still printing dirty prints. Which of the following would correct the problem?
   1. Reset the printer
   2. Clean the developer tank
   3. Clean the laser diode
   4. Run several blank pages
5. What type of connectors do Solid State Drives (SSD) use?
   1. USB
   2. SATA
   3. IDE
   4. PCIE
6. Hexadecimal 3C is \_\_\_\_\_\_\_\_\_\_\_\_\_ in decimal?
   1. 35
   2. 60
   3. 90
   4. 10
7. What is the maximum frequency range for an IEEE 802.11a standard?
   1. 2.4Gbps
   2. 5Gbps
   3. 2.4GHz
   4. 5GHz
8. What is the maximum distance of 802.11g?
   1. 50 feet
   2. 175 feet
   3. 250 feet
   4. 150 feet
9. For the IP address 200.10.5.68/28, what could the subnetwork address for that host be?
   1. 200.10.5.64
   2. 200.10.5.56
   3. 200.10.5.32
   4. 200.10.5.0
10. What is the component in the CPU that selects, interprets, and sees the execution of the programs?
    1. Memory
    2. Registers
    3. Control Unit
    4. ALU
11. You are asked to insert VLAN membership information into Ethernet frames. What command will you use to configure the switch port using the IEEE standards?
    1. Switch(config)# switchport trunk encapsulation isl
    2. Switch(config)# switchport trunk encapsulation dot1q
    3. Switch(config-if)# switchport trunk encapsulation isl
    4. Switch(config-if)# switchport trunk encapsulation dot1q
12. Which of the following devices can be used to connect a computer to the Internet through a telephone line?
    1. Modem
    2. Router
    3. Server
    4. Switch
13. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a business which allows customers to access the Internet through its own network.
    1. ISP
    2. IP
    3. IBP
    4. IC3
14. What command can you run in a windows computer to see what Direct X you are using?
    1. dirxrun
    2. dxdiag
    3. diagdx
    4. rundirx
15. What computer programming language is considered a dynamic language?
    1. C++
    2. Java
    3. Python
    4. Assembly
16. You notice that your computer is running slow, what software can you run to see what resources are being used?
    1. Device Manager
    2. Task Manager
    3. Disc Manager
    4. Disc Check
17. You have been asked to write a memo for work, what application will you use?
    1. Microsoft Publisher
    2. Microsoft PowerPoint
    3. Microsoft Excel
    4. Microsoft Word
18. According to the OSI model, encryption and decryption of data is performed in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ layer.
    1. Application
    2. Session
    3. Transport
    4. Presentation
19. If a computer does not have the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, it will not have the ability to “boot”.
    1. Assembly
    2. Operating System
    3. Drivers
    4. Compiler
20. The data packet that travels between a browser and a web server, that tracks information about the users behavior is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
    1. Pie
    2. Adware
    3. Spyware
    4. Cookie
21. The binary number 11100011 is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in decimal?
    1. 220
    2. 191
    3. 227
    4. 230
22. There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ used by the IPV6 address?
    1. 32 bits
    2. 64 bits
    3. 128 bits
    4. 256 bits