

# PC SERVICING AND TROUBLESHOOTING (305)

## REGIONAL – 2017

*TOTAL POINTS* \_\_\_\_\_ (500 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 sixty (60) minutes testing time

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*Workplace Skills Assessment Program* competition.

**Identify the letter of the choice that best completes the statement or answers the question.**

1. Which of the following configurations would be set after installing a new modem card?
  - a. Proxy server settings
  - b. Workgroup name
  - c. COM port number
  - d. Expansion port
  
2. Which of the following devices would need to be configured to block specific ports and protocols from entering the network?
  - a. Bridge
  - b. Firewall
  - c. Port replicator
  - d. Gateway
  
3. Which of the following is the *appropriate* interface to connect an optical mouse and keyboard to a computer?
  - a. IEEE 1394
  - b. USB
  - c. Serial
  - d. eSATA
  
4. Which of the following memory features allows for the protection against random inconsistencies in the transfer of the data?
  - a. Low latency
  - b. Dual channel
  - c. ECC
  - d. Single channel
  
5. Which of the following memory types is *most* commonly found in Pentium 4 class and newer desktop PCs?
  - a. SIMM
  - b. RAMBUS
  - c. SODIMM
  - d. DIMM
  
6. A workstation would *most* likely be connected to an office network using which of the following cable types?
  - a. eSATA
  - b. Bluetooth
  - c. SCSI
  - d. Ethernet

7. Which of the following terms *best* describes the software or hardware used to manage virtual machines?
  - a. Hypervisor
  - b. Cloud Server Manager
  - c. Supervisor
  - d. Virtual Disk Manager
  
8. Which of the following safety devices would be employed to prevent static discharge between a computer and a technician?
  - a. Non-Magnetic screwdriver
  - b. Voltmeter
  - c. Electrical tape
  - d. ESD mat
  
9. To configure two drives for *maximum* performance, which of the following RAID types should be used?
  - a. RAID 0
  - b. RAID 1
  - c. RAID 5
  - d. RAID 10
  
10. A technician is tasked with selecting components to build a computer that will be used for computer-aided drafting and computer aided modeling. Which of the following components is the *best* choice?
  - a. Triple channel memory
  - b. Hi-end MIDI sound card
  - c. TV tuner
  - d. Dedicated graphics card
  
11. Which of the following wireless protocols is limited to operating in the 5 GHz range **ONLY**?
  - a. 802.11a
  - b. 802.11b
  - c. 802.11g
  - d. 802.11n
  
12. Which of the following printing technologies uses piezoelectric pressure pads to produce small bubbles that are moved to the paper?
  - a. Impact
  - b. Thermal
  - c. Laser
  - d. Inkjet

13. When installing a printer in Windows, which of the following is the purpose of the Additional Drivers button on the Sharing tab in the printer's properties?
  - a. To add additional drivers to emulate a different printer
  - b. To add additional drivers for other printers on the computer
  - c. To add additional drivers for other operating systems
  - d. To add additional drivers for different printing mode
  
14. Which of the following Control Panel utilities will allow a technician to change a firewall setting?
  - a. System and security
  - b. Administrator tools
  - c. Accessibility options
  - d. Regional and language options
  
15. Which of the following will help protect against brownouts?
  - a. Power supply
  - b. Anti-static strap
  - c. Surge suppressor
  - d. Battery backup
  
16. ECC memory with parity is primarily used in which of the following computers?
  - a. Tablet
  - b. Desktop
  - c. Server
  - d. Laptop
  
17. Which of the following protocols would an email client use?
  - a. HTTP
  - b. SNMP
  - c. SMTP
  - d. SFTP
  
18. Which of the following standards would be used on a wireless router to support speeds up to 150 Mbps?
  - a. 802.11a
  - b. 802.11b
  - c. 802.11g
  - d. 802.11n
  
19. Which of the following should a technician check *first* before upgrading the RAM in a laptop?
  - a. The speed of the FSB
  - b. The motherboard specifications
  - c. The BIOS manufacturer
  - d. The operating system version

20. A printer is *not* pulling paper out of the paper tray. Which of the following is the *most* possible cause of the problem?
- Pickup rollers
  - DC Power problem
  - Faulty Drum cleaning blade
  - Room temperature in room too cold
21. A technician is *not* able to boot to Windows OS. A "Non bootable device found" message appears on the screen when the computer restarts. Which of the following is the *most* possible cause of the error message?
- MBR is corrupt on the HDD.
  - HDD is set to Cable Select.
  - The operating system is corrupt.
  - A bootable HDD is not recognized in the BIOS.
22. Which of the following keys, when pressed while clicking "restart," will display boot options on a Windows 10 PC?
- Shift
  - f8
  - esc
  - f2
23. Which of the following is the *correct* pin out for T568B?
- Orange/white, orange, green/white, blue, blue/white, green, brown/white, brown
  - Blue, blue/white, orange/white, orange, brown/white, brown, green/white, green
  - Green/white, green, orange/white, blue, blue/white, orange, brown/white, brown
  - Orange/white, orange, brown/white, brown, green/white, green, blue, blue/white
24. Which of the following lists the *correct* non-overlapping channels in 2.4 GHz?
- 1, 6, 11
  - 2, 4, 6, 8, 10
  - 3, 6, 9
  - 5, 11
25. A home user working outside an office reports that their laptop is no longer connecting to the Internet. Which of the following would a technician recommend to check *first*?
- Windows Firewall settings
  - DHCP settings
  - Disable HomeGroup
  - Wireless on/off switch
26. A technician installed a new docking station for a user, and they have lost the ability to connect to the network. Which of the following is the *most* likely reason?
- DHCP is disabled
  - The network is down
  - Device drivers are not loaded
  - The product is not compatible

27. Which of the following expansion ports is typically brown in color?
- PCI
  - PCI-X
  - PCIe
  - AGP
28. Which of the following connector types uses a single RCA style connector?
- DVI
  - VGA
  - RGB
  - Composite video
29. Which of the following Windows 8.1 versions comes with AppLocker built in?
- Enterprise
  - Home
  - Professional
  - RT
30. Which of the following laptop displays would provide the *best* viewing angle?
- Active matrix
  - TFT LCD
  - IPS
  - Plasma
31. When setting up for a projector presentation, which of the following laptop function keys usually needs to be toggled?
- Contrast
  - Brightness
  - Display
  - Bluetooth
32. A user, Ann, states that her laser printer has a smudge that repeats itself every couple inches down the center of each page. Which of the following components *most* likely needs replacing?
- Rollers
  - Fuser
  - Toner drum
  - Pickup assembly
33. A laptop's wireless card shows up in the Device Manager, but the signal strength is always one bar. This is caused by which of the following?
- The signal is disabled in the wireless utility
  - Disconnected or broken antenna
  - Disconnected or broken inverter
  - The wireless switch is turned off

34. Which of the following cables is prone to electromagnetic interference?
- STP
  - PVC
  - Plenum
  - UTP
35. RG-59 is a designation for which of the following cable types?
- Plenum
  - Fiber optic
  - Twisted pair
  - Coaxial
36. Which of the following ports is used by default for DNS traffic?
- 25
  - 53
  - 143
  - 3389
37. A technician wants to know if a PC has an embedded wireless card. Which of the following tools should be used?
- Device Manager
  - Component Services
  - Services
  - System Configuration
38. Which of the following ports is used for SMTP traffic by default?
- 110
  - 25
  - 143
  - 443
39. Which of the following is the *first* thing a technician should do before putting their hand inside a computer case?
- Acquire the appropriate tools that are going to be used.
  - Touch the case to discharge static.
  - Remove loose jewelry.
  - Refer to manufacturer documentation.
40. Which of the following socket types is for an Intel CPU?
- F
  - 940
  - AM3
  - 1156

41. Which of the following cable types is *most* often found in new phone wiring?
- RG-6
  - CAT3
  - Cat5E
  - Multi-mode
42. A technician notices multiple disk errors in the Event Viewer. Which of the following tools would *best* diagnose this issue?
- CHKDSK
  - FDISK
  - BOOTREC
  - DISKPART
43. The term SFF refers to which of the following?
- CPU speed
  - Memory size
  - Motherboard size
  - HDD size
44. A threaded coaxial connector used to connect to a TV tuner is *most* often referred to as which of the following?
- F-connector
  - RJ-11 connector
  - IEEE 1394 connector
  - RJ-45 connector
45. The **MAXIMUM** transfer rate of modern eSATA is which of the following?
- 1.54 Mbps.
  - 2.0 Gbps.
  - 6.0 Gbps.
  - 480 Mbps.
46. A technician installs a new high-end gaming video card into a computer but is not seeing any video. Which of the following power connectors did the technician *most* likely forget to install?
- 4/8-pin 12v
  - 6 or 8-pin PCIe
  - 20-pin main
  - 24-pin main
47. Which of the following should a technician do *first* after receiving a call from a customer asking for assistance?
- Confirm the user and the associated issue.
  - Confirm the hardware make, model, and serial number.
  - Escalate the call to a supervisor.
  - Assign the appropriate status for the problem.



48. Which of the following laptop hardware components requires a re-soldering process in order to replace properly?
- Mini PCIe wireless card
  - Heat sink
  - DC jack
  - Li-Ion battery
49. Which of the following BIOS boot methods allows a system to boot from a remote server?
- PXE
  - DVD
  - USB
  - SATA
50. Ann gets motion sickness symptoms when using her new computer monitor. Which of the following can a technician adjust to help Ann?
- Privacy filter
  - Refresh rate
  - Use a digital signal
  - Brightness