



# BCS Level 3 IT Solutions Technician EPA Knowledge Unit Hardware

## Specimen Paper

Record your surname / last / family name and initials on the answer sheet.

**Specimen paper only 20 multiple-choice questions** – 1 mark awarded to each question. Mark only one answer to each question. There are no trick questions.

A number of possible answers are given for each question, indicated by either **A. B. C. or D.** Your answers should be clearly indicated on the answer sheet.

Pass mark is 13/20

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**This knowledge unit is regulated by the following United Kingdom Regulator – NSAR.**

- 1 In the principles of solution architecture what is the **final** step in the process?
- A Identify the contract constraints of the solution.
  - B Delivering the solution into production.
  - C Design the structure of the solution.
  - D Agree a budget for the solution.
- 2 What **SHOULD** be the first step when creating a solution?
- A Establish a clear definition of the business problem.
  - B Identify any constraints that may affect the solution.
  - C Design the structure and the behaviour of the solution.
  - D Implement the solution and communicate to stakeholders.
- 3 What type of random access memory (RAM) is **PRIMARILY** used in laptops?
- A DIMM.
  - B NVRAM.
  - C SODIMM.
  - D EPROM.
- 4 What type of connector is shown in the image below?



- A BNC.
- B RJ11.
- C F-Connector.
- D RJ45.

- 5** Which copper cable class is being described below?
- uses RJ45 jacks;
  - data transfer rate up to 10 GB/s;
  - uses frequency of 250 MHz;
  - reduced cross-talk.
- A** Cat4.  
**B** Cat5.  
**C** Cat5e.  
**D** Cat6.
- 6** Which of the following is a two strand fibre cable that supports speeds up to 100 MB/s?
- A** 100 BaseFX.  
**B** 1000 BaseLX.  
**C** 1000 BaseSX.  
**D** 100 BaseTX.
- 7** Which of the following is an advantage of a standard computer build?
- A** All workstations will have the most up-to-date patches.  
**B** It ensures the best quality components are used.  
**C** Components will be interchangeable between workstations.  
**D** Workstations can be easily customised for specific tasks.
- 8** Which of the following mobile connection technologies has the shortest range?
- A** 4G.  
**B** NFC.  
**C** 3G.  
**D** Bluetooth.
- 9** What security threat is the sending of unsolicited messages over Bluetooth to Bluetooth-enabled devices?
- A** Bluebar.  
**B** Bluebugging.  
**C** Bluesnarfing.  
**D** Bluejacking.

- 10 Which of the following is an advantage of an IPSec VPN?
- A VPN tunnel is torn down once transfer of data is finished.
  - B Public keys are not exchanged between nodes.
  - C Can only connect one IP address on each end of the tunnel.
  - D Uses WEP to encrypt traffic between nodes on the VPN.
- 11 What must be configured to use a virtual private network (VPN) remote access?
- A Domain name.
  - B Hostname.
  - C Server name.
  - D Internet service provider.
- 12 Which of the following statements about a storage area network (SAN) is TRUE?
- A It is a local network of a single device.
  - B It is a local network of multiple devices.
  - C It is a global network of multiple devices.
  - D It is a personal network of multiple devices.
- 13 What process allows a redundant array of independent disks (RAID) to write and read identical data to pairs of drives?
- A Striping with parity.
  - B Striping with double parity.
  - C Striping and mirroring.
  - D Mirroring.
- 14 What type of fire extinguisher **SHOULD** be used to extinguish electrical equipment fires?
- A Water.
  - B Carbon dioxide (CO<sub>2</sub>).
  - C Foam.
  - D Wet chemical.

- 15 When working on a computer, what safety precaution can be taken to prevent damaging the components?
- A Wear an electrostatic wrist band.
  - B Make sure another person is present.
  - C Use a room with an air-conditioning system.
  - D Ensure a fire extinguisher is close by.
- 16 Which troubleshooting tool will resolve a name of an IP address?
- A Telnet.
  - B Cipher.
  - C Nslookup.
  - D Stc /scannow.
- 17 What **SHOULD** be carried out first during the initial configuration of a server?
- A Apply a corporate desktop background.
  - B Setup network monitoring.
  - C Configure remote access.
  - D Set an administrative password that complies with IT security policy.
- 18 What governs the initial stages of the startup process, ensuring that the operating system is correctly loaded into memory?
- A System clock.
  - B BIOS.
  - C NIC.
  - D Bus.
- 19 What is tested when performing stress testing of the CPU?
- A Cores.
  - B Capacitors.
  - C Power supply.
  - D Transistors.

- 20** Which mobile device management software function would be performed if a handset was confirmed stolen?
- A** Data encryption.
  - B** Phone tracking.
  - C** Remote wipe.
  - D** Software updates.

**End of Paper**