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 (CO₂).
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.
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