

**BCS Level 3 IT Solutions Technician EPA Knowledge Unit Core IT Knowledge  
Answer Key and Rationale**

<b>Question</b>	<b>Answer</b>	<b>Explanation / Rationale</b>	<b>Syllabus Sections</b>
<b>1</b>	<b>B</b>	Computer networks have centralised management.	1.1
<b>2</b>	<b>D</b>	The Presentation layer handles the different encoding scheme on systems. This includes conversion between ASCII and EBCDIC, two different ways of encoding text. Other graphics encoding schemes are also managed by the Presentation layer for example GIF, JPEG. The Session layer is used to initialise and tear down communication. The Data Link layer embeds data into Ethernet frames for local transmission. The Application layer relies on the Presentation layer to correctly convert between coding schemes.	1.2
<b>3</b>	<b>A</b>	The Internet layer sends data through the shortest route if more than one route is available.	1.3
<b>4</b>	<b>C</b>	A mail exchanger record (MX record) is a type of resource record in the Domain Name System that specifies a mail server responsible for accepting email messages on behalf of a recipient's domain, and a preference value used to prioritise mail delivery if multiple mail servers are available.	1.4
<b>5</b>	<b>D</b>	Dynamic Host Configuration Protocol's (DHCP) main purpose is to automatically assign IP addresses. Telnet is an application that allows insecure command line connection, such as Linux systems or network devices. PING is used to check a remote IP address is accessible and Netstat displays the current network connections and network statistics.	1.5
<b>6</b>	<b>B</b>	A Local Area Network (LAN) is a network over a small geographical area, typically one building or site.	1.6
<b>7</b>	<b>A</b>	OSPF and RIP are two well-known routing protocols. TCP and UDP by contrast are Transport layer protocols.	1.7
<b>8</b>	<b>C</b>	As the subnet mask is a 16-bit mask, the first two octets represent the network address and the second two represent the host address.	1.8
<b>9</b>	<b>D</b>	The windows RDP port is a well-known port number throughout the industry.	1.10
<b>10</b>	<b>B</b>	Routers are small electronic devices that connect two or more networks together via either wired or wireless connections and is a Layer 3 network gateway device.	2.1
<b>11</b>	<b>A</b>	An application is used to provide a specific task for an end user.	3.1

Question	Answer	Explanation / Rationale	Syllabus Sections
12	C	A hard disk is the only medium that can reliably store data. Floppy disks are hardly ever used and are unreliable.	4.1
13	D	The main purpose of an operating system is to manage resources.	5.1
14	B	Mobile platforms can easily be lost or stolen so more security measures are required.	5.3
15	C	The Git application contract changes in source code during software development.	9.1
16	A	Software as a service (SaaS) allows users to connect to and use cloud-based apps over the Internet. Common examples are email, calendaring and office tools. SaaS provides a complete software solution that is purchased on a pay-as-you-go basis from a cloud service provider. Apps are rented by an organisation and users connect to it over the Internet, usually with a web browser. All the underlying infrastructure, middleware, application software and application data are located in the service provider's data centre (such as Microsoft Office 365).	6.2
17	D	A computer program could pretend to be a known individual to an organisation.	7.2
18	C	1000 MB equals 1 GB.	8.2
19	B	Relational databases use more than one table to store and retrieve information.	10.1
20	A	Service level agreements are common contract contractual documents which will include response times to customer requests.	11.1