

BCS Level 4 Award in Voice and Data Solutions  
Answer Key and Rationale – QAN 603/3257/8

Question	Answer	Explanation / Rationale	Syllabus Sections
1	B	PSTN stands for public switched telephone network.	1.1
2	A	The routing table stores the best possible routes, while link state or topological databases may store other information as well.	3.6
3	C	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.	2.2
4	B	This means the operator knows the location of the number and can call the extension back directly. Note that a handset can have multiple DDI numbers. However, local DDI number and CLI must be used for 999 and 112 access. Calls made by a VOIP handset will always be handled by the Local Resiliency Forum, even if the PSTN access is at another location. All service providers must do a mandatory 999 and 112 system test with the emergency operator services before a system goes live.	1.5
5	C	Choppy voice in VOIP is caused by insufficient bandwidth. This could be caused by bandwidth hungry applications running on Link. By using QOS this gives priority to voice calls.	1.8
6	D	Dynamic routing is related to routing protocols so both RIP and OSPF perform best path determination and enter the path data into the route table as soon as they have worked it out. You would expect the default route would be the best path and, if it fails, then the routers will reconverge on the best alternative route; therefore, it always does it.	3.5
7	D	OSPF, RIP are two well-known routing protocols. TCP and UDP by contrast are Transport layer protocols.	3.5
8	A	There is no conflict when several domain names are routed to the same IP address. The other options are all purposes of name resolution.	2.1
9	B	The frontend server connects the system trunks.	1.3
10	D	The Primary zone can be edited because it is the source of data for other zones. AD and reverse zones can also be edited.	2.3
11	A	Callers will notice round-trip voice delays on 250 ms or more. ITU-T G.114 recommends a maximum of a 150 ms one-way latency.	1.6
12	B	If a VOIP handset has lost its configuration incoming calls can be lost. This is quite common if there has been a glitch on the network. The handset should be unplugged for 30 seconds, if this does not fix the problem then read the user guide to reset handset.	1.8
13	A	Application servers support multimedia IP communications including unified voice, video, text chat and presence.	3.1
14	D	Online conferencing uses voice, video, messaging, whiteboard or scratchpad, and user applications.	3.8
15	B	TCP Port 139 and UDP 138 network ports are used to replicate contents of the SYSVOL folder.	3.4

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<b>16</b>	D	PSTN usage records consists of listing all the call permissions. However, they must be associated with voice policies and routes to take effect.	1.4
<b>17</b>	A	Bellmann-Ford is an algorithm used by distance vector routing protocols to calculate the best route between networks.	3.7
<b>18</b>	B	Hunt groups distribute inbound calls to a group of extensions. Call-flow distribution can be simultaneous ring, round robin or linear distribution.	1.2
<b>19</b>	B	The default ports for SIP is 5060, and SIP TLS (encrypted) is 5061.	3.2
<b>20</b>	C	A MAN is a campus or small area environment that is larger than a LAN but smaller than a WAN.	3.3