BCS Level 4 Award in Network and Digital Communications Theory
QAN 603/0703/1

Specimen Paper

Version 5.0
July 2020
Change History

Any changes made to the specimen paper shall be clearly documented with a change history log. This shall include the latest version number, date of the amendment and changes made. The purpose is to identify quickly what changes have been made.

<table>
<thead>
<tr>
<th>Version Number</th>
<th>Changes Made</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 1.0 September 2017</td>
<td>Document created.</td>
</tr>
<tr>
<td>Version 2.0 February 2018</td>
<td>Updates to questions.</td>
</tr>
<tr>
<td>Version 3.0 September 2018</td>
<td>Edit to title and formatting changes.</td>
</tr>
<tr>
<td>Version 4.0 July 2019</td>
<td>Major changes to questions to match Syllabus question weightings.</td>
</tr>
<tr>
<td>Version 4.1 August 2019</td>
<td>Minor tweak to question 4</td>
</tr>
<tr>
<td>Version 5.0 July 2020</td>
<td>Major changes to questions to match updated syllabus (V3.0). Paper size reduced to 20 questions. Title page, change history table and related syllabus section added.</td>
</tr>
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</table>

Related Syllabus

This specimen paper and answer key are related to the following syllabus:

BCS Level 4 Award in Network and Digital Communications Theory Syllabus V3.0 March 2020
Specimen Paper

Record your surname/ last/ family name and initials on the Answer Sheet.

Specimen paper only. 10 multiple-choice questions – 1 mark awarded to each question. Mark only one answer for 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.

This is a specimen examination paper only.

Copying of this paper is expressly forbidden without the direct approval of BCS, The Chartered Institute for IT.

This qualification is regulated by Ofqual (in England).
1 Media Access Control (MAC) is part of which OSI layer?
A Network.
B Physical.
C Data Link.
D Transport.

2 Which of the following standards covers Ethernet protocols?
A 802.3
B 802.11
C 802.1
D 802.6

3 When securely transferring data over a network, which of the following protocols would be MOST appropriate?
A SMTP.
B SNMP.
C FTP.
D HTTPS.

4 When an interconnection device receives a frame of 62 octets what is likely to happen next?
A The device drops the frame.
B The device forwards the frame.
C The device returns the frame to sender.
D The device adds 8 octets and re-transmits it.

5 Which of the following error control techniques COULD give a false-positive result?
A Checksum.
B CRC.
C Parity.
D Redundancy.
6  In which of the following scenarios would it be preferable to use static routing?
A  Where redundancy is a priority.
B  Routing to a stub network.
C  In a large constantly changing network.
D  Routing across a WAN.

7  Which of the following is a disadvantage of using the OSPF protocol?
A  Hierarchical protocol.
B  Processor intensive.
C  Uses multicasting.
D  Single copy of routing information.

8  Why does contention in a network cause a slow response for users?
A  Networks are limited to a specific number of connections.
B  Causes data packets to be dropped.
C  Causes data to be corrupted.
D  Data has to be retransmitted.

9  Which of the following describes the effect of contention on network performance?
A  Increases speed of connections.
B  Increases data integrity.
C  Causes data loss.
D  Latency is increased.

10 By limiting the use of file-sharing applications and prioritising VoIP traffic, what are a network team implementing?
A  Route-based traffic shaping.
B  Application-based traffic shaping.
C  Presentation-based traffic shaping.
D  Frame-based traffic shaping.

-End of Paper-