Examination report – June 2013 series

2730-012 Communication systems and digital networks 2

Section 1 – Areas of good performance
Syllabus reference: 1.7, 1.11, 1.16 Data formats, switching methods, redundancy. All parts answered reasonably well, although a slight weakness prevailed with the main difference between a datagram and a virtual circuit packet switched network. Syllabus reference: 2.5, 2.7 – OSI model. Again most candidates answered this area well. Syllabus reference: 3.17 – IP classes. Answered quite well by most candidates. Syllabus reference: 3.11, 3.12 – TCP/IP. These parts were answered reasonably well. Syllabus reference: 4.17 – HDLC. Answered well by approximately 50% of candidates, others lacked knowledge in this area. Syllabus reference: 4.15 – Data flow methods This part was answered reasonably well, although some candidates showed a particular weakness by explaining 'switching methods'. Syllabus reference: 5.19, 5.25, 5.28 – Subnetting, distance vector routing. Again these parts were answered reasonably well, although some candidates showed a weakness when describing the method used by a router to update its routing table when using the distance vector protocol. Syllabus reference: 5.4, 5.6 – STA, switching methods. These parts were generally answered well.
Section 2 – Areas for development
Syllabus reference: 3.17 – IP classes. When explaining how each of the classes A, B and C are identified in the Internet Protocol (IP) addressing scheme, most candidates simply answered by stating that each class had a different subnet mask. Also, very few candidates identified the correct purpose of class D. Syllabus reference: 3.8, 3.21 – IP addressing/TCP. In both of these parts there was a distinct lack of knowledge as very few candidates appeared to understand the concept of subnetting, or the structure of TCP. Syllabus reference: 4.8, 4.13 – Transmission impairments, interface standards. For stating how the transmission impairments attenuation, delay distortion and noise can be overcome, many candidates simply explained the impairments instead of how they could be overcome. Also, poor answers were given for stating standards for data communications interfaces, showing a lack of knowledge in this area.

Syllabus reference: 4.17 – Bit stuffing (HDLC). Poor, vague answers were given not very accurately. Syllabus reference: 4.10 – Data encoding. In both cases a distinct lack of knowledge prevailed with incorrect answers. Syllabus reference: 5.11 – Routing protocols. Whilst some candidates answered this part well, most answered incorrectly.
Section 3 – Tips
Always read the question carefully, especially where a description or explanation is required. Ensure that answers do not simply repeat the question wording only.
Section 4 – Additional comments
Where diagrams are required, they need to be made clear.