
TECH LEVEL IT

Communication Technologies
Report on the Examination

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Although one centre achieved a 100% pass rate, there is still some concern about the number of students not passing. Overall, 4% of all students achieved a Distinction, 14% a Merit and 44% a Pass. It is recommended that centres review the mark scheme to assess the range and depth of answers required for future series.

Centres should ensure that continuation sheets are available should students run out of space or require additional space for planning, particularly in Section B. Any extra sheets used should be attached to the answer booklet.

Whilst Section A demands single word or short answer recall of a breadth of knowledge across all Assessment Outcomes of the specification, Section B requires analysis and development of responses related to very specific themes. On this occasion, the required analysis and development of Section B responses by students was insufficient in three of the four high-value components.

The most successfully answered question this series was a multiple-choice question (Question 2 relating to wired transmission media), closely followed by student responses to Question 16 (simplex, half-duplex, full-duplex) with most students making good use of the diagram facility. Students are reminded that diagrams can be used to explain any question, if appropriate, for example with annotation. Students were also familiar with SIM card functionality (Question 3), point-to-point communication (Question 7.1) and broadband speed measures (Question 8). Students also provided secure technical descriptions of a touch screen, crosstalk and interference, hotspots and tethering, wireless technology and network topology.

Students struggled with Question 14.2 (parallel data transmission) and 15.2 (modem data transmission) and were not much clearer on Question 10 and Question 13, relating to, respectively, network bandwidth consumption v capacity, and listing devices connected to a LAN.

Most homes have old routers in the attic waiting for the day they will be used again which never comes; acquiring these for practical use in the classroom can be a cost-free way of familiarising students with a range of communication technology terms and concepts.

Question 10 required students to 'explain' using 'examples' but explanations provided were insufficient and appropriate examples not always provided; see exemplar answers provided in the mark scheme.

Question 21.2 (the OSI and TCP/IP models), a clear part of the unit content, was only passed by around a fifth of students.

For Question 6 (mobile telecommunications), students tended to provide insufficient detail, referring, for example, to 4G being "fastest" and 1G being "very slow", "basic", "old" when what was needed was some indication of an understanding of the progression of development in communication technologies, from voice calls only, to text, to mobile broadband, to VOIP (see suggested content provided in mark scheme).