



Report on multiple-choice Question Paper

Paper: 7730-001 Novice Radio Amateurs Examination

Examination date: 5 June 2000

Syllabus Topic or Objective	Number of items	Comments on performance of candidates
1 Receivers and receiving techniques	5	The questions in this section were generally well answered. Only 40% of candidates knew the convention of using upper sideband for s.s.b. transmissions on the 28MHz band.
2 Components, applications and units	3	The main purpose of a transformer again caused problems, 31% of the candidates thinking that it was used for converting a.c. to d.c.
3 Measurements	4	<p>Nearly half the candidates continue to have difficulty with calculations involving voltage, current and power. 46% of the candidates were unable to determine the current to the final stage of a transmitter, given the applied voltage and the d.c. input power.</p> <p>In a question on a dummy load, 31% of candidates chose to use a wirewound rather than a carbon resistor, perhaps not realising that a wirewound resistor is likely to be inductive.</p>
4 Propagation and antennas	5	Most candidates did not recognise coaxial cable as being an unbalanced feeder and instead chose open wire feeder. The other four questions on propagation and antennas were very well answered.
5 Transmitters and transmitting techniques	10	<p>Candidates performed well in nearly all the questions in this section.</p> <p>In a question that asked which control would be used to vary the depth of modulation of a transmitter, over a quarter of the candidates chose to use an r.f. attenuator rather than the microphone gain control to adjust the level.</p> <p>When asked the meaning of the letters <i>e.m.c.</i>, 30% of the candidates thought they stood for <i>electromagnetic communication</i> rather than <i>electromagnetic compatibility</i>.</p>
6 Operating techniques	6	Half the candidates were unsure of where to obtain up-to-date information about repeaters. Candidates should have chosen to refer to the current RSGB Yearbook, but 36% said they would ask the local office of the Radiocommunications Agency.
7 Station layout	1	The question on station layout was well done by nearly all candidates.

continued overleaf

Syllabus Topic or Objective	Number of items	Comments on performance of candidates
<p>continued</p> <p>8 Construction</p> <p>9 Safety</p> <p>10 Licensing conditions</p>	<p>1</p> <p>2</p> <p>8</p>	<p>In a question on the construction of an oscillator, the correct answer was that the components and connecting wires should be mounted so they will not move or vibrate. 43% of the candidates thought that only polarised capacitors should be used in the construction of an oscillator.</p> <p>Both questions on safety were generally well answered. However, there were 28 candidates who did not know the colour of the live wire in a 13A plug.</p> <p>All the questions on the licensing conditions were very well answered.</p>
<p>General comments on the paper</p>	<p>Candidates were generally well prepared for the examination, but the above report gives areas of weakness of the less able candidates. In particular, some candidates were lacking in their knowledge of the purpose of a transformer and in simple calculations involving voltage, current and power.</p> <p>The paper was moderated from the results of 141 candidates of whom 113 (80.1%) were successful.</p> <p>The next examination in this subject is scheduled to be held on Monday, 11 September 2000. The City and Guilds examination fee is £12.80.</p> <p>Examination reports for the Novice Radio Amateurs Examination and the Radio Amateurs Examination are normally available on the Internet two to three weeks after each examination at</p> <p style="text-align: center;">http://www.g4dmp.co.uk/</p>	