



Report on multiple-choice Question Paper

Paper: 7730-001 Novice Radio Amateurs Examination

Examination series: June 1998

| Syllabus Topic or Objective | Number of items | Comments on performance of candidates |
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| 1 Receivers and receiving techniques | 5 | Questions in this section were very well answered. Some candidates did not realise that a c.w. signal would sound like a series of clicks if the mode switch of a receiver was set to the a.m. position. |
| 2 Components, applications and units | 3 | All three questions were well answered. |
| 3 Measurements | 4 | The questions on meters and on the dummy load were very well answered, but many candidates were unable to calculate the current in the final stage of a transmitter when the supply voltage was 10V and the d.c. input power was 2W. |
| 4 Propagation and antennas | 5 | In a question that asked which band would be most suitable for communicating with stations 500km away during daylight hours, of the options available, many candidates chose to use 28MHz rather than 3.5MHz. |
| 5 Transmitters and transmitting techniques | 10 | <p>28% of the candidates said they would use an s.w.r. meter to check for second and third harmonics of 1.960MHz rather than a general coverage receiver.</p> <p>A question on calculating the frequency of the lower sideband of a 1.960MHz transmitter, modulated with a 3000Hz tone, caused considerable difficulty, only 23% of the candidates selecting 1.957MHz.</p> <p>In a question that asked what type of oscillator would be used in a low power transmitter covering the 3.560MHz to 3.585MHz band, a third of the candidates answered a Beat Frequency Oscillator rather than a Variable Frequency Oscillator.</p> |
| 6 Operating techniques | 6 | All questions on operating techniques were very well answered. |
| 7 Station layout | 1 | Very well answered. |
| 8 Construction | 1 | A question asked which pairs of metals may be most easily soldered together. Most candidates did not know that, of the choices available, tin and zinc would be the easiest to solder. |

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| <p>continued</p> <p>9 Safety</p> <p>10 Licensing conditions</p> | <p>2</p> <p>8</p> | <p>The question on the procedure in the event of an electric shock was well answered. In a question about indicator lamps, many candidates did not know that a neon would be more reliable than a filament lamp to show that the power was switched on.</p> <p>All questions on the licensing conditions were very well answered with the exception of one about the station log. 35% of the candidates thought that it was not necessary to enter the transmitter power in the log. It <i>is</i> a requirement to enter the power in the log and this has been so since the Novice Licence was first introduced. The correct answer to this question is that the exact frequency need not be entered.</p> |
| <p>General comments on the paper</p> | <p>Candidates were generally well prepared for the examination and obtained high marks. In scoring the paper, account was taken of two questions that were outside the scope of the present syllabus. No candidates were penalised if they did not answer the questions correctly.</p> <p>Of the 142 candidates who took the examination, 120 (84.5%) of them were successful.</p> | |