



1. If an Intermediate licensee visits the home of a Full licensee and is transmitting using a power of 200W then the Intermediate Licensee

1B1-2025-Int'd-2120

- A is operating illegally.
- B may use the call sign of the Full licensee but do not need to be supervised.
- C may use their own call sign but be supervised by the Full licensee.
- D must use the call sign of and be supervised by the Full licensee.

2. As a service to the community, amateurs are permitted to pass messages on behalf of

1C2-2025-Int'd-2323

- A User Services.
- B a security guard on a building site.
- C an RSPCA officer.
- D The Automobile Association.

3. Who may require the amateur to reduce the level of any emissions causing undue interference?

1D1-2025-Int'd-1187

- A A Police officer.
- B The person suffering from the interference.
- C An officer authorised by the Local Authority.
- D A person authorised by Ofcom.

4. A link used for the remote control of a transceiver

1E1-2025-Int'd-8108

- A can be freely used by other amateurs.
- B can be encrypted by a recognised protocol.
- C must use a terrestrial communication link.
- D must be adequately secure to prevent other use.

5. What are the average and peak powers above which a full EMF compliance check needs to be carried out?

1G1-2025-Int'd-7988

- A Average 5W EIRP, Peak 50W EIRP.
- B Average 10W EIRP, Peak 100W EIRP.
- C Average 5W ERP, Peak 50W ERP.
- D Average 10W ERP, Peak 100W ERP.



6. On which band is there a limit specified on the maximum effective radiated power?

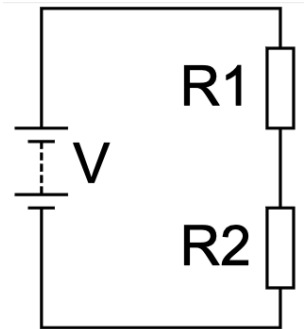
1H1-2025-Int'd-2310

- A 438.0-440.0MHz.
- B 10.100-10.150MHz.
- C 1.850-2.000MHz.
- D 0.1357-0.1378MHz.

7. In the circuit shown R1 is  $200\Omega$  and R2 is  $600\Omega$ . A voltage of 4V is measured across the  $200\Omega$  resistor, what is the supply voltage V of the battery?

2c1-2025-Int'd-2220

- A 16V.
- B 8V.
- C 12V.
- D 4V.



8. The voltage measured across the terminals of a battery drops when current flows because of the

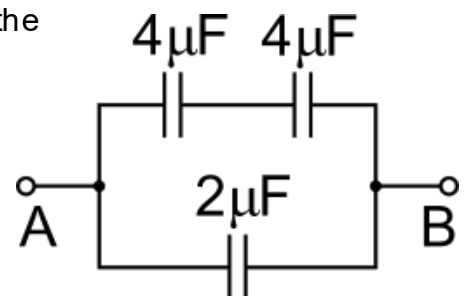
2C3-2025-Int'd-89

- A internal resistance of the battery.
- B heating effect of the current.
- C PN boundaries in the battery.
- D effect of connecting the probes of the meter.

9. What is the capacitance between points A and B in the circuit shown?

2D2-2025-Int'd-7424

- A  $1.6\mu\text{F}$ .
- B  $2.5\mu\text{F}$ .
- C  $4\mu\text{F}$ .
- D  $10\mu\text{F}$ .





Candidate: INTERMEDIATE, Mock TWO

Exam: Amateur Radio Exam Intermediate Level - **Syllabus V1.6b**

Centre: RSGB (RSGB – ONLINE REMOTE INV)

Date: Tuesday, 17 April 2026

10. Three inductors, each having an inductance of 6mH, are connected in series, with no mutual coupling. The combined value of inductance is

2D5-2025-Int'd-111

- A 18mH.
- B 2mH.
- C 12mH.
- D 6mH.

11. The period of a 200Hz signal is

2E2-2025-Int'd-115

- A 50ms.
- B 20ms.
- C 200ms.
- D 5ms.

12. The reactance of an inductor is given by

2E5-2025-Int'd-2303

- A  $I_{Peak}/V_{Peak}$  Henries.
- B  $V_{rms}/I_{rms}$  Ohms.
- C  $I_{rms}/V_{rms}$  Ohms.
- D  $V_{Peak}/I_{Peak}$  Henries.

13. A long perfectly matched open wire feeder is carrying a signal of wavelength 10m. At a particular instant in time the voltage at a point on the feeder reaches its peak. What is the voltage at the same instant in time 2.5 m further along the feeder?

2E8-2025-Int'd-7383

- A Varying.
- B The positive peak.
- C The negative peak.
- D Zero.

14. The minimum sampling rate of an analogue signal to fully capture this signal is known as the

2F1-2025-Int'd-7390

- A Fourier rate.
- B Nyquist rate.
- C Digital rate.
- D Frequency rate.



15. A mains transformer has a primary coil of 1000 turns, and a secondary coil of 60 turns. Which ONE of the following statements about the transformer is true?

2G1-2025-Int'd-939

- A It should be used with a 13A fuse.
- B It should be used with a 3A fuse.
- C It is a step down transformer.
- D It is a step up transformer.

16. A series resonant circuit

2H2-2025-Int'd-1237

- A consists of a resistor and inductor.
- B has a minimum impedance at a particular frequency.
- C consists of a resistor and capacitor.
- D has a high impedance at a particular frequency.

17. In a variable capacitance diode the capacitance depends on the

2I2-2025-Int'd-1753

- A frequency.
- B forward current.
- C reverse voltage.
- D reverse current.

18. A transistor used to generate audio or radio frequencies is operating as

2I5-2025-Int'd-1757

- A a detector.
- B a filter.
- C a tuner.
- D an oscillator.

19. The designer of a mains power supply has a choice of using either a half wave, a full wave, or a bridge rectifier. Which would require a higher value reservoir capacitor for the same degree of smoothing?

2J2-2025-Int'd-338

- A All require the same value reservoir capacitor.
- B The half wave rectifier.
- C The full wave rectifier.
- D The bridge rectifier.



20. A particular feature of an integrated circuit linear power supply is that

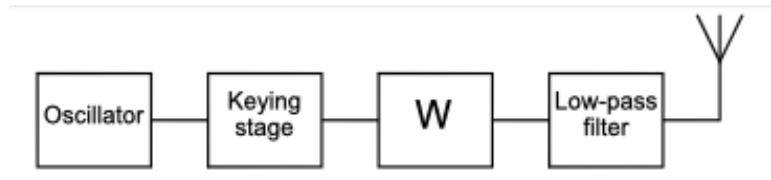
2J4-2025-Int'd-7462

- A most of the control functions are contained within a single device containing several transistors.
- B the voltage stabilisation functions are carried out using a number of individual transistors and other components.
- C the mains supply is rectified and converted to 20kHz or higher frequency pulses.
- D a transformer made of a ferrite material is used to save space, weight and simplify smoothing.

21. The block diagram shows a simple Morse (CW) transmitter. What is the name of block W?

3B1-2025-Int'd-1248

- A Modulator.
- B Power amplifier.
- C AF amplifier.
- D Sideband filter.



22. Sideband filters are of a type called

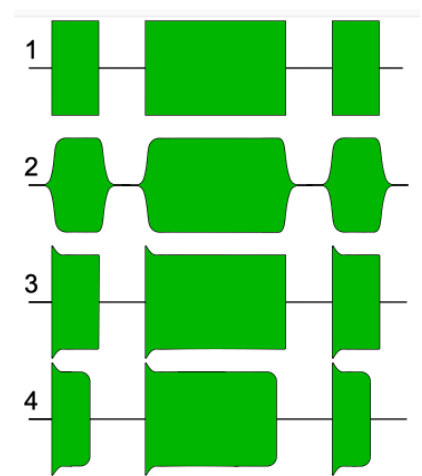
3E2-2025-Int'd-7556

- A band stop filters.
- B band pass filters.
- C high pass filters.
- D low pass filters.

23. The drawings show the transmitted waveform of a CW transmitter sending the letter R. Which waveform will result in the minimum transmitted bandwidth?

3G4-2025-Int'd-1680

- A waveform 4.
- B waveform 1.
- C waveform 3.
- D waveform 2.





Candidate: INTERMEDIATE, Mock TWO  
Exam: Amateur Radio Exam Intermediate Level - **Syllabus V1.6b**  
Centre: RSGB (RSGB – ONLINE REMOTE INV)  
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24. If the receiver is tuned to a very strong RF signal then it can result in

3H3-2025-Int'd-7560

- A instability in the local oscillator.
- B distorted audio from the receiver.
- C damage to the AGC circuit.
- D muting in the audio amplifier of the receiver.

25. The intermediate frequency can be the

3I2-2025-Int'd-1007

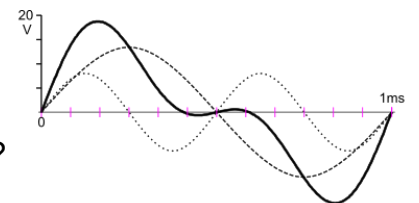
- A difference between the RF and the local oscillator frequencies.
- B sum of the RF and the audio frequencies.
- C difference between the audio and the local oscillator frequencies.
- D sum of the audio and the local oscillator frequencies.

26. The S-meter in a receiver normally relies on a signal derived from the

3L1-2025-Int'd-3634

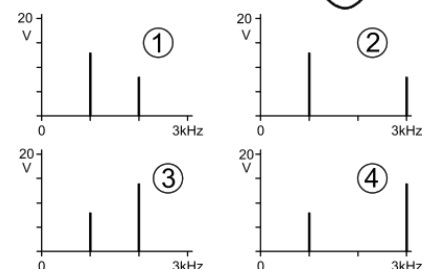
- A AGC voltage from the detector
- B front end RF amplifier.
- C strength of the audio signal.
- D biasing of the first mixer.

27. A sine wave and a harmonic are shown at the top of the drawing. Below are four representations in the frequency domain. Which one corresponds to the waveform shown?



3M2-2025-Int'd-7569

- A 1.
- B 2.
- C 3.
- D 4.



28. One advantage of using twin feeder over coaxial feeder is that it

4A2-2025-Int'd-1700

- A has a lower loss than coaxial feeder.
- B has an earth lead for safety.
- C has a higher loss than coaxial feeder.
- D is screened to prevent radiation.



29. An isotropic radiator is

4C4-2025-Int'd-7023

- A real and has measurable dimensions.
- B a theoretical point source of equal radiation in all directions.
- C said to have a gain of 2.15 dB compared to a dipole.
- D used only in the troposphere.

30. A three element triband Yagi antenna will have

4D2-2025-Int'd-589

- A three parasitic elements and an RF driven dipole.
- B harmonically related feedpoint impedances.
- C twelve parallel tuned circuits.
- D an automatic ATU at the feedpoint.

31. The single most important reason for using a PL259 plug and SO239 socket to connect an antenna feeder to a transceiver is to

4G1-2025-Int'd-7026

- A minimise the chance of accidental disconnection.
- B contain the RF signal within the connection.
- C ensure electrical contact is only made via soldered joints.
- D match 75Ω feeder to the 50Ω output of the transceiver.

32. The direction of propagation of an electromagnetic wave is

5A3-2025-Int'd-1709

- A at right-angles to both electric and magnetic fields.
- B at right angles to the electric field only.
- C parallel to electric field.
- D parallel to the magnetic field.

33. Which one of the following affects the propagation of high frequency (HF) radio waves?

5B2-2025-Int'd-1127

- A The average barometric pressure at any point along the path in question.
- B The maximum barometric pressure at any point along the path in question.
- C The state of the sun-spot cycle.
- D The maximum height of any mountain ranges over which they travel.



Candidate: INTERMEDIATE, Mock TWO

Exam: Amateur Radio Exam Intermediate Level - **Syllabus V1.6b**

Centre: RSGB (RSGB – ONLINE REMOTE INV)

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34. The greatest range of a radio wave by means of a single hop via the E layer is approximately

5B5-2025-Int'd-634

- A 2,000km.
- B 5,000km.
- C 15,000km.
- D 10,000km.

35. The immunity of a receiving device can be improved by

6A2-2025-Int'd-7028

- A screening the transmitter.
- B filtering power, signal and control leads.
- C transmitting on a lower frequency.
- D transmitting on lower power.

36. Interference to an amateur receiver from a vacuum cleaner would take the form of a

6B2-2025-Int'd-1066

- A rough sounding continuous noise.
- B 50Hz hum.
- C low pitched musical tone.
- D high pitched musical tone.

37. Fitting a choke or balun on a feeder can be used to attenuate

6D2-2025-Int'd-7031

- A common mode currents.
- B differential mode currents.
- C direct currents.
- D balanced currents.

38. Which one of the following constitutes a good RF earth?

6E2-2025-Int'd-1058

- A A connection to an earth stake.
- B A connection to the domestic water pipe.
- C A connection to the mains earth.
- D A connection to the domestic gas pipe.



39. Amateur radio contests generally require

7A5-2025-Int'd-1100

- A membership of the RSGB.
- B production of QSL cards confirming all contacts.
- C operation from remote locations.
- D the correct exchange of specified information.

40. A computer sound card can be used for

7F2-2025-Int'd-1092

- A adjusting your HF receiver filters.
- B only receiving amateur radio signals.
- C controlling the transmitted frequency.
- D sending and receiving data signals via amateur radio.

41. The fuse in a 13A plug (when purchased) is rated at 13A. Which ONE of the following is a correct statement?

8A4-2025-Int'd-1118

- A The 13A fuse maintains a constant current of 13A to the equipment.
- B The 13A fuse should be replaced by one that is rated just above the current drawn by the equipment.
- C The house fuses are adequate protection and the 13A fuse can be replaced by aluminium foil if it blows.
- D As the 13A fuse is the one specified for the plug it should not be changed.

42. It is most advisable, when using a drill to

8B3-2025-Int'd-1458

- A place the item being drilled on a flat surface.
- B ensure the item being drilled is securely fixed.
- C keep one hand on the item being drilled to prevent the drill slipping.
- D keep one hand in your pocket.



Candidate: INTERMEDIATE, Mock TWO

Exam: Amateur Radio Exam Intermediate Level - **Syllabus V1.6b**

Centre: RSGB (RSGB – ONLINE REMOTE INV)

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43. When transmitting from a vehicle in a stationary or slow moving queue it is a requirement to consider

8D1-2025-Int'd-8059

- A reflections off adjacent vehicles.
- B the increased risk of interference.
- C the proximity of the general public.
- D the adequacy of the power supply.

44. To measure potential difference (voltage) using a general purpose multi-meter the probes should be connected in

9A2-2025-Int'd-962

- A parallel (across) the component under test whilst in the circuit.
- B series with the component under test whilst isolated from any other component.
- C series with the component under test whilst in the circuit.
- D parallel with the component under test whilst isolated from any other component.

45. A gain of 6 dB is a power multiplication of

9B1-2025-Int'd-2336

- A eight times.
- B four times.
- C ten times.
- D two times.

46. When soldering electronic components

9E2-2025-Int'd-2006

- A solder containing resin-based flux should not be used, as it is corrosive.
- B solder containing flux should be used to prevent oxidation of the joints.
- C solder should be carried to a joint on the tip of the iron.
- D the iron should be unplugged before making each joint.



## Answers INTERMEDIATE MOCK PAPER 2

Question	Answer	Question	Answer
1	D	24	B
2	A	25	A
3	D	26	A
4	D	27	A
5	B	28	A
6	D	29	B
7	A	30	C
8	A	31	B
9	C	32	A
10	A	33	C
11	D	34	A
12	B	35	B
13	D	36	A
14	B	37	A
15	C	38	A
16	B	39	D
17	C	40	D
18	D	41	B
19	B	42	B
20	A	43	C
21	B	44	A
22	B	45	B
23	D	46	B