

- 1.** A holder of a Foundation Licence is NOT permitted to
- 1A3.4182.1  
N149587
- A.** erect an HF antenna
  - B.** modify and operate a CB for use on the 10m band
  - C.** use a dummy load to test a transmitter
  - D.** operate on the Isle of Man.
- 2.** The licence requires you to give your Callsign when
- 1A5.4224.1  
N149587
- A.** changing from CW to FM but on the same carrier frequency
  - B.** wishing your contacts '73' and leaving the group
  - C.** speaking for the first time to a person who has already joined the group
  - D.** first speaking after a pause of about 10 minutes.
- 3.** Which one of the following things may you do as a Foundation Licence holder?
- 1C1.4250.1  
N149587
- A.** Broadcast CDs over the air to your friends
  - B.** Send messages in a secret code
  - C.** Talk to amateurs in other countries
  - D.** Broadcast news about school activities.
- 4.** Licensees are required by the terms of the Licence to carry out test from time to time to ensure that
- 1D1.4303.1  
N149587
- A.** their antenna is securely fastened
  - B.** the VSWR of their transceiver is less than 3:1
  - C.** their station is not causing undue interference
  - D.** the shack earth is in good condition.
- 5.** The maximum transmit power allowed at the antenna feed point in the frequency range 432.0-440.0MHz is
- 1G1.4349.3  
N149587
- A.** 10W
  - B.** 10W erp
  - C.** 100W
  - D.** 1W erp.

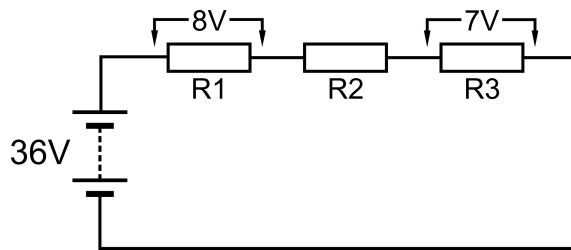
6. What is the radiated power level above which an EMF (electromagnetic field) assessment must be carried out?

1G2.8013.2  
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- A. 10W erp
- B. 10W eirp
- C. 1W eirp
- D. 1W erp.

7. What is the voltage across R2 in the circuit shown?

2C2.7717.3  
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- A. 21A
- B. 20A
- C. 20V
- D. 21V.

8. The unit of frequency is the

2E1.4494.1  
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- A. hertz
- B. amp
- C. watt
- D. volt.

9. A diagram of the electronics of a handheld radio has a device labelled 'DAC'. It is likely that this device

2F2.7720.2  
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- A. takes the digital signal from the radio's memory and amplifies it to a suitable level for headphones
- B. processes the data stream into regular samples suitable for storing in the radio's memory
- C. catalogues the data signals and produces a display of the frequency the radio is tuned to
- D. takes a digital signal from the radio's memory and turns it into an analogue signal.

**10.** When an audio frequency is mixed with a radio frequency, which one of the following is produced?

3A3.4589.1  
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- A. Carrier wave
- B. A direct current
- C. Harmonics
- D. Sidebands.

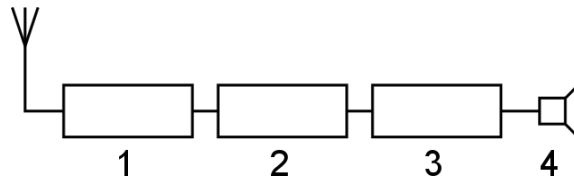
**11.** A poorly designed frequency generator stage in a transmitter may

3C1.4634.1  
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- A. risk damaging the antenna
- B. damage the power supply
- C. cause the transmitter to radiate outside the amateur bands
- D. risk damage to the audio stage or the microphone.

**12.** In the block diagram of a radio receiver shown, what is the function of the box marked '1'?

3H2.4687.1  
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- A. Tuning and RF amplifier
- B. Detection
- C. Antenna
- D. Audio amplifier.

**13.** The device used to correctly connect a dipole antenna to coaxial feeder is called

4B1.4724.1  
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- A. a dummy load
- B. a balun
- C. an SWR meter
- D. a yagi.

**14.** An antenna will

4C1.4731.1  
N149587

- A. pick up radio signals and convert them into electrical signals
- B. provide an RF earth
- C. work equally well at all frequencies
- D. reflect radio waves away from the transmitter.

**15.** Damage to an antenna will be most evident inside the station on the

4E2.4807.1  
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- A.** transmitter frequency display
- B.** transmitter output meter
- C.** standing wave ratio meter
- D.** power supply voltmeter.

**16.** The ionosphere is located at heights above the ground between

5B1.4849.1  
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- A.** 7m and 40m
- B.** 7km and 40km
- C.** 70ft and 400ft
- D.** 70km and 400km.

**17.** A radio amateur wishes to receive from a greater range on VHF and UHF. Which option is likely to be most successful?

5C3.4892.1  
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- A.** Place the antenna on the ground in the garden
- B.** Use UHF for greatest range
- C.** Increase the antenna height to above surrounding roofs
- D.** Double the receiving station's transmitter power.

**18.** A radio amateur is operating on 145.5MHz. Which of the items in the 'shack' is most likely to suffer interference?

6A4.4910.1  
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- A.** An HF receiver on 14.1MHz
- B.** An electric digital clock
- C.** A computer
- D.** A VHF receiver on 144.25MHz.

**19.** Clicks and a buzz on a mobile receiver in a vehicle can be due to

6F3.4974.1  
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- A.** locating the antenna in an exposed location on the roof
- B.** the use of battery power rather than mains power
- C.** battery charging and vehicle ignition systems
- D.** the lack of an actual earth lead to divert the electrical noise.

- 20.** The Station Log will be of assistance in tracing the cause of an interference problem experienced by a neighbour, because
- 6G2.4986.1  
N149587
- A.** the licence requires you to keep a Log of your transmissions
  - B.** the station you contacted might be the source of the interference
  - C.** it will be useful to compare the times of the interference with the times of transmission
  - D.** the local authority will want a copy of your Log in order to deal with the complaint.
- 21.** When calling CQ on a VHF FM calling channel, a radio amateur should
- 7A2.5007.1  
N149587
- A.** say "CQ" 2 or 3 times and give the call sign, then listen for a reply
  - B.** say "CQ" about 20 times and listen for a reply
  - C.** say "CQ" a number of times and give the call sign when a contact is established
  - D.** give the call sign 2 or 3 times and say "CQ" when somebody replies.
- 22.** According to the Band Plan what is the 2 metre band FM calling frequency?
- 7B1.5050.1  
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- A.** 145.500MHz
  - B.** 144.500MHz
  - C.** 144.300MHz
  - D.** 144.700MHz.
- 23.** When choosing a digital voice (DV) radio, you should remember
- 7F1.5084.1  
N149587
- A.** to get a radio on the same frequency as used by your nearest or chosen repeater
  - B.** that the radio will switch to the data protocol used by the repeater contacted
  - C.** to register your callsign with the RSGB or local repeater group
  - D.** that there are several different digital protocols in use and choose the right one for your local area.
- 24.** When checking mains equipment, it is necessary to
- 8A6.5126.1  
N149587
- A.** use only non magnetic tools
  - B.** disconnect the unit from the mains supply
  - C.** remove the earth wire from the mains plug
  - D.** remove the earth wire from the equipment.

**25.** When using a ladder to erect a new antenna you should

8C2.5179.1  
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- A.** only use a wooden ladder
- B.** ensure that you are the only person in the area
- C.** set the ladder at the correct angle (1up to 4 out)
- D.** set the ladder at the correct angle (4 up to 1 out).

**26.** The ICNIRP is of interest to amateurs because it

8D2.5206.1  
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- A.** produces guidance on the safe levels of RF exposure
- B.** co-ordinates the launch of amateur and other satellites
- C.** produces the International version of the Amateur Band Plans
- D.** oversees the preparation of the International Radio Regulations.