Exam: Amateur Radio Examination Foundation Level [E48158F]

Centre: RSGB (RSGB TEST)

Date: Mon, 01 Nov 2021 09:00 GMT

1. When MUST you tell Ofcom of a change of your main station address?

1A4.4183.3 N144838

- A. Immediately on moving
- B. After 1 month
 - C. After 5 working days
 - **D.** After 10 working days.
- 2. How often MUST you identify your station, by giving your callsign, whilst in contact with another station for a period of 25 minutes?

1A5.4217.1 N144838

- A. At the beginning and end of the contact
- **B.** At the beginning and end of each "over"
- C. At the beginning and after five minutes
- **D.** As often as is practicable.
- The operator of a station contacted declines to give a call sign even when asked more than once; what action should be taken?

1C1.4254.1 N144838

- A. Report the incident to the police
- B. Repeat the question
- C. Break off the contact
- **D.** Record the contact.
- 4. In which country are you NOT permitted to operate using your Foundation Licence?

1F1.4317.1 N144838

- A. Scotland
- B. France
- C. Jersey
- D. Wales.
- **5.** What is the status of UK amateur radio on 3.7MHz?

1G1.7522.2 N144838

- A. Primary
- B. Secondary shared
- C. Secondary
- D. Primary shared.

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

1G2.8013.1 N144838

- A. 1 Watt e.i.r.p.
- B. 1 Watt e.r.p.
- C. 10 Watts e.i.r.p.
- **D.** 10 Watts e.r.p.
- 7. Which one of the following is an electrical insulator?

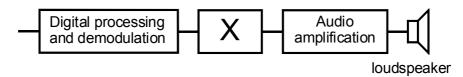
2A1.4373.1 N144838

- A. Copper
- B. Gold
- C. Silver
- D. Ceramic.
- 8. What wavelength corresponds to the 14MHz band?
- 2E7.4554.1
- A. 50 metres
- N144838

N144838

- B. 20 metres
- C. 0.6 metres
- **D.** 40 metres.
- 9. 2F2.7382.6

The block diagram shows part of a radio receiver which uses digital processing to demodulate the radio signals. What is the function of the box marked 'X'?



- **A.** Digital to analogue converter
- **B.** Analogue to digital converter
- C. Frequency demodulator stage
- **D.** Amplitude demodulator stage.
- 10. Modulation is the process of

3A1.4571.1 N144838

- A. ensuring the transmitter is on the same frequency as the distant receiver
- **B.** adding the data or voice to be transmitted to the radio frequency carrier
- **C.** extracting the transmitted data from the radio frequency carrier
- **D.** ensuring the transmitter is on the same frequency as the local receiver.

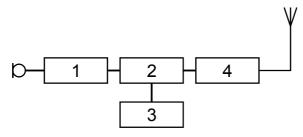
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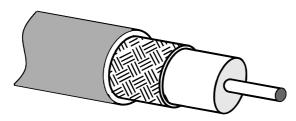
11. What is the function of the box marked '3' on the transmitter block diagram?

3B1.4627.1 N144838



- A. Modulator
- B. Audio amplifier
- C. RF power amplifier
- D. Oscillator.
- 12. In a software defined radio (SDR) receiver the required signal is selected using
- 3M1.4709.1 N144838
- A. A low pass filter
- B. An anti-alias filter
- C. A filter defined in software
- **D.** A diode detector.
- **13.** The cable shown in the drawing is normally used for

4A1.4716.1 N144838



- A. carrying mains power
- **B.** outdoor lighting
- C. radio frequency signals
- **D.** low voltage DC devices.
- **14.** 10W e.i.r.p. is the same radiated power as
- 4C4.8014.1 N144838
- **A.** 6.1W e.r.p. **B.** 6.1W pep
- **C.** 10W e.r.p.
- **D.** 10W pep

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15. Which type of cable is fitted to a PL259 plug?

4G1.4823.3 N144838

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- A. Two core AC mains
- **B.** 300Ω ribbon
 - C. Three core AC mains
 - **D.** 50Ω coaxial.

16. The layers of conductive gases between 70 and 400km in height are known as

5B1.4853.1 the

A. troposphere

B. solarsphere

C. ionosphere

D. mesosphere.

17. Which action will be most effective in extending the range for transmitting and

receiving VHF or UHF signals?

5C3.7730.2 N144838

A. Increasing the height of the antenna

B. Using UHF rather than VHF

C. Using an indoor antenna

D. Increasing the transmitter power.

18. Which item is most likely to be affected by a local radio transmission?

6A4.4909.1 N144838 A. An electric bell

B. An electronic calculator

C. A domestic radio receiver

D. An electric fire.

19. Amateur transmissions might be picked up by

6C1.4932.1 N144838 **A.** only wiring that does not have an earth lead

B. only wiring which is longer than 2 metres

C. earth leads only

D. any wiring in the neighbour's house.

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20.

It is proving difficult to determine how an amateur transmission is interfering with a neighbour's television. The amateur should try seeking help from the

6G1.5000.3 N144838

- A. Radio Society of Great Britain
- B. British Telecommunications
- C. planning department of the local council
- D. Radio Licensing Centre.

21. UTC is used for logging purposes because

7A5.5031.1 N144838

- A. it saves having to remember whether it is GMT or British summer time
- **B.** it is specified in the amateur licence for official purposes
- C. it is used worldwide to avoid confusion of different time zones
- **D.** it allows the shack clock to be left on the same setting, summer or winter.

22. To make a contact through a repeater you can hear on 145.600MHz you should transmit on

7C1.5071.1 N144838

- A. 145.000MHz
- **B.** 144.000MHz
- C. 146.200MHz
- **D.** 145.600MHz.

Getting an amateur friend to comment on your transmitted audio signal when you are using a new microphone is necessary because

7D1.5079.1 N144838

- A. the transmit frequency might need adjusting
- **B.** the microphone could be tuned to the wrong frequency
- C. not all microphones are suitably fused
- **D.** the microphone gain on the transmitter may need to be re-adjusted.

24. A fuse is formed from

8A4.6271.3 N144838

- A. a coil of wire
- B. a metal strip designed to melt at a specific current
- **C.** a junction of two different types of silicon material
- **D.** two metal plates separated by an insulator.

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25. Protective goggles should be worn when drilling in order to

8B1.5150.1 N144838 A. hold glasses (if worn) securely

B. allow closer inspection of the work

C. prevent swarf entering your eyes

D. allow greater drill speeds.

26.

At an open day hosted by your radio club who is responsible for the safety of

those attending?

8F5.5248.1 N144838

A. Everybody present

B. The RSGB

C. Ofcom

D. The police.