1 Which, of the items listed below, is NOT a type of Amateur licence?
   A. Intermediate.
   B. Foundation.
   C. Beginner.
   D. Full.

2 When transmitting, you must give your call sign
   A. when establishing contact and at least every 5 minutes.
   B. when establishing contact and as frequently as is practicable.
   C. during CQ calls and at the beginning and end of the contact
   D. at the beginning and end of the contact.

3 You are talking to M3ABC by amateur radio and friends enter his room. You may also address remarks to these friends
   A. if they are family members.
   B. if M3ABC gives permission.
   C. if they are also amateurs.
   D. but only on the calling channel.

4 When must you carry out tests on your station to ensure that it is not causing undue interference to other radio users?
   A. If you receive a complaint from a neighbour.
   B. From time to time.
   C. Every week.
   D. When the warranty expires on your transceiver.

5 On which one of the frequencies below may a Foundation licensee transmit?
   A. 1.825MHz.
   B. 7.5MHz.
   C. 15MHz.
   D. 21.5MHz.
6 Which part of an amateur band is not permitted within 100km of Charing Cross, London?
1G2
A. 1.810-1.830MHz.
B. 51.00-52.00MHz.
C. 431.0-432.0MHz.
D. 438.0-440.0MHz.

7 Which of the following is a good conductor of an electric current?
2A1, 2A2, 2B1, 2C1, 2C2, 2C3, 2C4
A. Rubber.
B. Plastic.
C. Glass.
D. Aluminium.

8 The frequency 50MHz is
2E1, 2E2, 2E7, 2J1
A. LF.
B. HF.
C. VHF.
D. UHF.

9 An Analogue to Digital converter ADC
2F1, 2F2
A. Represents a digital signal in analogue format.
B. Samples an analogue signal and creates a digital representation of it.
C. Modulates the audio input.
D. Is an optional component in a software defined radio.

10 When radio frequencies are mixed with audio frequencies, the new frequencies that are generated are called
3A1, 3A2, 3A3, 3A4
A. Fundamentals
B. Harmonics
C. Sidebands
D. Carriers

11 The RF power amplifier
23B1, 3C1, 3E1, 3F1, 3F3, 3G1
A. takes the signal from the microphone and amplifies it to a suitable level.
B. amplifies the modulated signal to suitable level to feed the antenna.
C. converts the mains supply to a suitable voltage to be used by the transmitter.
D. ensures the transmitter is radiating on the correct frequency.
12. In a Software Defined Radio, demodulation is carried out by a
   A. product detector.
   B. frequency discriminator
   C. balanced modulator.
   D. mathematical process.

13. Loss in feeders increases with the
   A. transmit power.
   B. length of the feeder cable.
   C. lower transmit frequencies.
   D. higher gain antennas.

14. The gain of an antenna is measured in
   A. Watts.
   B. Volts.
   C. Amps.
   D. Decibels.

15. An amateur changes the frequency band he/she is operating on but does not check if the antenna is still matched. This might cause
   A. * damage to the transmitter.
   B. distortion of the transmitted signal.
   C. antenna overloading.
   D. Interference to be caused on other bands.

16. The lowest layer of the ionosphere is at a height of about
   A. 800km.
   B. 700m.
   C. 70km.
   D. 10km.
17 Snow, ice and rain have the most detrimental effect on which frequency range?
   5C1, 5C2, 
   5C3
   A. LF.  
   B. HF.  
   C. VHF.  
   D. UHF.

18 Electromagnetic compatibility (EMC) means
   6A1, 6A2, 
   6A3, 6A4
   A. The antenna is properly matched to the transmitter.  
   B. the avoidance of interference between electronic equipment.  
   C. ensuring electronic equipment generates small electromagnetic fields.  
   D. a microphone will work correctly when connected to a transmitter.

19 When installing a transceiver in a motor vehicle care must be taken to ensure
   6B1, 6C1, 
   6D1, 6D4, 
   6E1, 6E2, 
   6F1, 6F2, 
   6F3
   A. The antenna is mounted as far away from the fuel filler as possible.  
   B. The system will not interfere with vehicle electrical and management systems.  
   C. You insure the equipment against theft.  
   D. The transceivers controls cannot be changed whilst the car is moving.

20 Advice on dealing with EMC and interference is available from
   6G1, 6G2, 
   6G3
   A. the local council.  
   B. the Police.  
   C. the Radio Society of Great Britain.  
   D. the Citizens Advice Bureaux.

21 The correct phonetic spelling of ‘SIGNAL’ is
   7A1, 7A2, 
   7A3, 7A4, 
   7A5, 7A6
   A. SIERRA ITALY GOLF NOVEMBER APPLE LIMA.  
   B. SIERRA ITALY GOLF NORWAY ALPHA LIMA.  
   C. SIERRA INDIA GOLF NOVEMBER ALPHA LIMA.  
   D. SUGAR INDIA GOLF NOVEMBER ALPHA LIMA.

22 A badly setup transmitter operating on 50.1 MHz is also radiating on 150.3MHz. Which service might be affected?
   7B1, 7B2, 
   7C1
   A. Broadcast Radio.  
   B. Aeronautical mobile.  
   C. Radio Astronomy.  
   D. Maritime Mobile.
23
7D1, 7E2, 7F1, 7F2, 7G1

You are having a contact (QSO) with another amateur and he reports your signal as '5 and 5'. This means that he is reading your transmission as

A. excellent audio and very strong signal strength.
B. average audio and a very strong signal strength.
C. excellent audio with an average signal strength.
D. average audio with an average signal strength.

24
8A1, 8A2, 8A3, 8A4, 8A5, 8A6, 8A7, 8A8

A Residual Current Circuit Breaker with Overcurrent Protection (RCBO) will stop mains power in a circuit

A. only when there is a current leakage to earth above its leakage threshold.
B. only when there is an excessive current in the circuit above the current threshold.
C. when there is both earth leakage and excessive current above the device threshold.
D. when there is either earth leakage or excessive current above the device threshold.

25
8B1, 8B2, 8B7, 8C1, 8C2, 8C3

Soldering workstations

A. require an emergency cut off switch in case the soldering tip comes into contact with the skin.
B. should be well ventilated to avoid inhaling fumes.
C. must be on an anti-static surface.
D. must be earthed.

26
8D1, 8D2, 8D3, 8D4, 8E1, 8F1, 8F2, 8F3, 8F4, 8F5

Using excessive volume when wearing headphones can result in

A. complaints from neighbours about the noise.
B. damage to your transmitter.
C. overloading your receiver.
D. damage to your hearing.
### Answer key

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