

Syllabus 2019 – Mock Examination Paper

Foundation Mock paper 1

- 1** The holder of M6XYZ is
1A1, 1A2,
1A3, 1A4
- A. a Full licence holder.
 - B. a Scottish Intermediate licensee.
 - C. a Foundation licence holder in England.
 - D. a pirate station.
- 2** Your CQ call on two metres is answered immediately, and you change frequency to a 'working' channel where you hold a 20 minute conversation and then close down. To comply with your licence, you must have given your callsign
1A5
- A. whenever asked.
 - B. three times.
 - C. four times.
 - D. as frequently as practicable.
- 3** Which transmission is regarded as 'transmitting for general reception'?
1B1, 1C1,
1C2, 1C3
- A. Being overheard by other amateurs you are not talking to.
 - B. Talking to a group of more than six amateurs.
 - C. Talking to anybody who happens to be listening.
 - D. Talking in a language other than English.
- 4** Who may require you to stop transmitting until a fault in your transmitter has been fixed?
1D1, 1D2,
1F1
- A. The person suffering from interference.
 - B. A person authorised by Ofcom.
 - C. A person authorised by the local Council.
 - D. A member of the RSGB staff.
- 5** What power is a Foundation Licence holder permitted to use on the 0.137MHz band?
1G1
- A. 1W.
 - B. 1W erp.
 - C. 10W.
 - D. 10W erp.

6 On which one of the following bands do radio amateurs have Primary status?

1G2

- A. 50·00 – 51·00MHz.
- B. 51·00 – 52·00MHz.
- C. 430·0 – 431·0MHz.
- D. 431·0 – 432·0MHz.

7 A 12V mobile transceiver consumes 10W on receive and 100W on transmit. The highest current drawn will be

2A1, 2A2,
2B1, 2C1,
2C2, 2C3,
2C4

- A. 0.83A.
- B. 0.83Ω.
- C. 8.3A.
- D. 8.3Ω.

8 What is the significant difference between AC and DC?

2E1, 2E2,
2E7, 2J1

- A. Direct currents are always greater than alternating currents.
- B. Direct currents take a long time to change direction.
- C. Alternating currents are continually changing direction.
- D. Alternating currents have a fixed polarity.

9 Digital signals are

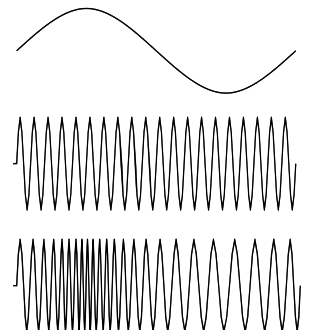
2F1, 2F2

- A. constantly changing in amplitude, frequency or both.
- B. a stream of finite values at a specific sampling interval.
- C. demodulated using a frequency discriminator.
- D. created by a digital to analogue converter.

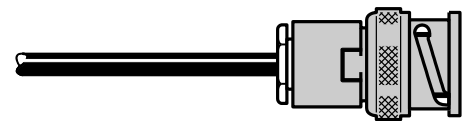
10 The bottom waveform in the diagram shows

3A1, 3A2,
3A3, 3A4

- A. An audio wave.
- B. A carrier wave.
- C. An amplitude modulated wave.
- D. A frequency modulated wave.



- 11** Too much audio gain is likely to cause a transmitter to
 23B1, 3C1, 3E1, 3F1, 3F3, 3G1
- A. stop working.
 - B. increase the SWR.
 - C. interfere with other bands.
 - D. interfere with adjacent frequencies.
- 12** A Software Defined Radio (SDR) receiver
 3H1, 3H2, 3K1, 3M1
- A. uses a balanced modulator to recover the original audio.
 - B. digitises incoming signals for processing in software.
 - C. does not require an antenna or coaxial feeder.
 - D. Is completely immune to interference.
- 13** Which one of the following would NOT be found in a radio receiver?
 4A1, 4A2, 4B1
- A. RF power amplifier.
 - B. Audio amplifier.
 - C. Detector (demodulator).
 - D. Tuning and RF amplifier.
- 14** A vertical half wave dipole will radiate
 4C1, 4C2, 4C3, 4C4, 4C5, 4D1
- A. equally in all horizontal directions.
 - B. a maximum signal in a vertical direction.
 - C. a minimum signal at right-angles to the antenna.
 - D. a maximum signal off the ends of the antenna.
- 15** The connector shown is a
 4E1, 4E2, 4F1, 4G1, 4H1
- A. PL259 plug.
 - B. BNC plug.
 - C. jack plug.
 - D. USB plug.



- 16** HF propagation is NOT affected by the
 5A1, 5A2, 5B1, 5B2
- A. sun.
 - B. time of day.
 - C. day of the week.
 - D. frequency used.

- 17** A VHF transmitting antenna should be located
5C1, 5C2, 5C3
- A. indoors, protected from the rain, wind and sun.
 - B. outdoors, as high as practicable to avoid obstructions.
 - C. close to the transmitter so you can easily adjust it to the correct length.
 - D. at ground level to minimise interference.
- 18** A radio amateur's transmission is LEAST likely to cause interference to
6A1, 6A2, 6A3, 6A4
- A. other amateurs.
 - B. other radio users.
 - C. an electric drill.
 - D. An electronic security alarm.
- 19** Which of the following would NOT help to reduce interference to local TV receivers?
6B1, 6C1, 6D1, 6D4, 6E1, 6E2, 6F1, 6F2, 6F3
- A. Increasing the distance between the antenna and the houses.
 - B. Lengthening the transmitter mains cable.
 - C. Increasing the height of the antenna.
 - D. Using balanced antennas for HF.
- 20** Your neighbour complains that your radio transmissions are interfering with his TV. You should
6G1, 6G2, 6G3
- A. tell him that it is not possible because you are working to the conditions of your licence.
 - B. offer to make a log of your transmission times and ask him to note the times of any interference for comparison.
 - C. ring the local authority and ask them for advice.
 - D. suggest that he buys a new TV.
- 21** Once you have contacted another station on a VHF FM calling channel you should
7A1, 7A2, 7A3, 7A4, 7A5, 7A6
- A. remain on the frequency until another station wishes to use it.
 - B. remain on the frequency as long as the contact takes.
 - C. ask if the frequency is clear.
 - D. change frequency to a suitable clear channel.

- 22** Band plans are used because
7B1, 7B2,
7C1
- A. using them is a condition of the licence.
 - B. they help prevent on-air abuse.
 - C. they enable efficient use of the band for different modes.
 - D. they are required for radio competitions.
- 23** Digital Voice (DV) radios
7D1, 7E2,
7F1, 7F2,
7G1
- A. may have the owners callsign embedded in the configuration.
 - B. can be used to contact all other types of amateur radios.
 - C. automatically check to see if a channel is in use.
 - D. cause more interference than SSB radios.
- 24** The mains power switch to the radio shack should be
8A1, 8A2,
8A3, 8A4,
8A5, 8A6,
8A7, 8A8
- A. out of reach to younger children for safety reasons.
 - B. key operated to prevent use by non-licensed persons.
 - C. switched off at all times.
 - D. in a clearly marked position.
- 25** When using a soldering iron you should
8B1, 8B2,
8B7, 8C1,
8C2, 8C3
- A. have a responsible person nearby to help.
 - B. wear glasses or eye protection.
 - C. ensure that tools are stored in a locked tool box.
 - D. ensure the circuit you are working on is earthed.
- 26** When working a portable field station, feeder cables must always be
8D1, 8D2,
8D3, 8D4,
8E1, 8F1,
8F2, 8F3,
8F4, 8F5
- A. as long as possible.
 - B. located away from overhead power cables.
 - C. run along the ground to the antenna mast.
 - D. as short as possible.

Answer key

1	2	3	4	5	6	7
C	D	C	B	B	A	C
8	9	10	11	12	13	14
C	B	D	D	B	A	A
15	16	17	18	19	20	21
B	C	B	C	B	B	D
22	23	24	25	26		
C	A	D	B	B		