

Foundation Amateur Radio Question Paper



This paper consists of 26 questions
Duration 45 minutes

INSTRUCTIONS TO CANDIDATES

- You should have 2 items.
1. This question paper
 2. A booklet including
 - (a) The Schedule to the Foundation Amateur Licence
 - (b) A Frequency to Wavelength conversion chart
 - (c) A Frequency Allocation Table
 - (d) 14MHz and 144MHz Amateur Radio Band Plans

All questions have equal marks and all questions should be attempted.

Each question has 4 possible answers, identified 'A' 'B' 'C' and 'D'. Only one answer is correct, the others are wrong. You should decide which of the 4 answers is the correct one and mark the answer box for each question accordingly.

If you decide answer 'C' is correct, show this by ticking in the box marked 'C'. **Take care to ensure your tick does NOT cover two boxes.**

A [] A [✓]
B [] B []
C [✓] C [■]
D [] D []

If you then change your mind, shade out the tick and tick the box for your new choice.

The Booklet may be used to help answer any question.

You may also use a calculator.

This paper will contain your answers and must be handed in at the end of the exam.

Surname:	
First Names:	
Date of Birth:	
Candidate Number:	
Examination Centre:	
Date of Examination:	

Notice to candidates

You must not talk to or distract any other candidate in the exam room.

You are not allowed any assistance with the exam questions and the invigilator is not permitted to discuss exam questions.

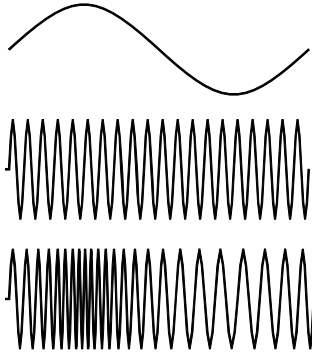
If you need other assistance, please raise your hand and talk quietly to an invigilator when approached.

You may not leave the exam room without permission and may not re-enter the room unless you have been escorted by an invigilator at all times.

You must use a blue or black pen for your answers and any calculations may be done on the reverse of the question paper.

- 1** The holder of M6XYZ is
- A a Full licence holder
 - B a Scottish Intermediate licensee
 - C a Foundation licence holder in England
 - D a pirate station.
- 2** When operating from home the Foundation licence holder must identify herself
- A once a day
 - B once an hour
 - C every 15 minutes
 - D at the beginning and end of each transmission.
- 3** Which transmission is regarded as 'broadcasting'?
- 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?
- 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** On which one of the following bands do radio amateurs have Primary status?
- A 50.00 – 51.00MHz
 - B 51.00 – 52.00MHz
 - C 430.0 – 431.0MHz
 - D 431.0 – 431.0MHz
- 6** What power in a Foundation Licence holder permitted to use on the 0-137MHz band?
- A 1W
 - B 1W erp
 - C 10W
 - D 10W erp
- 7** A 12V mobile transceiver consumes 10W on receive and 100W on transmit. Which of the following fuses is appropriate?
- A 100mA
 - B 1A
 - C 10A
 - D 100A
- 8** In a piece of wire the electrons move backwards and forwards when it is connected to
- A an AC supply
 - B a battery
 - C an LED
 - D a filament lamp
- 9** Which of the following frequency ranges is considered sufficient to convey speech?
- A 30 – 300Hz
 - B 300Hz – 3kHz
 - C 3kHz – 30kHz
 - D 30kHz – 300kHz
- 10** What is the frequency of a wave if its wavelength is 15 metres?
- A 10MHz
 - B 15MHz
 - C 20MHz
 - D 25MHz

11 The bottom waveform in the diagram shows the



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

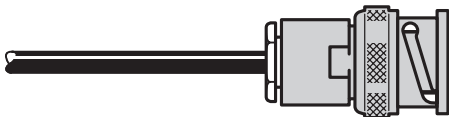
12 Too much audio gain will cause a transmitter to

- A [] stop working
- B [] increase the SWR
- C [] interfere with other bands
- D [] interfere with adjacent frequencies.

13 Which one of the following would NOT be found in a radio receiver?

- A [] RF power amplifier.
- B [] Audio amplifier.
- C [] Detector (demodulator).
- D [] Tuning and RF amplifier.

14 The connector shown is a



- A [] PL259 plug
- B [] BNC plug
- C [] jack plug
- D [] USB plug.

15 A vertical half wave dipole will radiate

- A [] equally to all points on the horizon
- 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.

16 When adjusting an Antenna tuning Unit (ATU or AMU) you should always

- A [] adjust for a minimum standing wave ratio
- B [] adjust for a maximum standing wave ratio
- C [] turn off the transmitter
- D [] ensure the antenna is cut for the right wavelength.

17 The best place for a VHF antenna is

- 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 HF propagation is not affected by the

- A [] sun
- B [] time of day
- C [] day of the week
- D [] frequency used.

19 A radio amateur's transmission is LEAST likely to cause interference to

- A [] other amateurs
- B [] other radio users
- C [] an electric drill
- D [] An electronic security alarm.

- 20** Which of the following would NOT help to reduce interference to local TV receivers?
- 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.
- 21** Fitting external chokes and filters to TV sets can
- A [] increase the chance of interference
 - B [] reduce the chances of interference
 - C [] stop a transmitter generating interference
 - D [] increase the strength of the TV signal.
- 22** Once you have contacted another station on a VHF FM calling channel you should
- 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 calling channel is clear
 - D [] change frequency to a suitable clear channel.
- 23** What frequency should you use for SSB calling on the 2m band?
- A [] 144.050MHz
 - B [] 144.300MHz
 - C [] 144.500MHz
 - D [] 144.600MHz
- 24** When calling CQ another station replies in an offensive manner. You should
- A [] reply in an equally offensive manner
 - B [] advise the station that they will be reported to the police
 - C [] complain, on-air, about the offensive station
 - D [] ignore the offensive station and make no reference to having heard it.
- 25** Which mains supply and earthing practice can cause problems for radio amateurs?
- A [] PME
 - B [] PEP
 - C [] PMP
 - D [] PMR
- 26** The mains power switch to the radio shack should be
- A [] hidden away to prevent tampering
 - B [] hidden away to prevent use by non-licensed persons
 - C [] switched off at all times
 - D [] in a clearly marked position.

Answers

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