

Amateur Radio Examination Foundation Level [E40436F]

Candidate:

Date of Birth:

Exam Centre:

Date: Wed,

This paper consists of 26 questions. **Time allowed:** 55 minutes

Candidate Declaration <i>I confirm that this is all my own work and that I have followed the rules of the examination.</i>	Candidate's Signature
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INSTRUCTIONS TO CANDIDATES

You should have 3 items.

1. This Examination Paper
2. An Optical Mark Sheet
3. Reference Data for use in the Foundation Level Examination

You will need a pen to sign this form and complete the Optical Mark Sheet, an HB Pencil and an eraser.
You may use a silent, non-programmable calculator.

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

Your answers should initially be marked in pencil on the Optical Mark Sheet or the examination paper itself. Errors should be corrected using your eraser. When you are satisfied that your answers are final, you should **INK IN** the answer box on the Optical Mark Sheet using a black pen.

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 correct and mark the answer box for each question accordingly.

If you decide answer 'C' is correct, show this by shading in the box marked 'C' using an HB pencil .	A <input type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/> D <input type="checkbox"/>
If you change your mind before inking-in, rub out the shading and shade in the box for your new choice.	A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>

When you are satisfied with your answer, shade in the whole box with **black ink**. Do **NOT** make any mark outside the box. **Once you have inked-in the Optical Mark Sheet, no changes can be made.**

The Reference Data booklet contains the Schedule to the Licence, the Band Plans, the Frequency to Wavelength Conversion Chart and the Frequency Allocation Table, which may be used to help answer any question.

The Optical Mark Sheet is designed to be machine marked and will provide your result for this Examination.

It must be completed during the time allowed for the Examination.

This paper, the Optical Mark Sheet and Reference Data Booklet must be handed in at the end of the 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 examination questions.

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

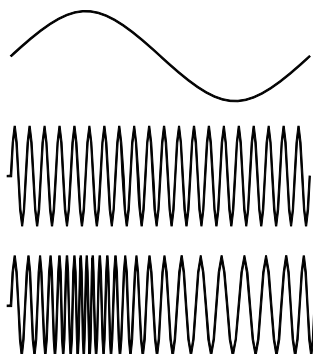
You may not leave the exam room without permission and may not re-enter the room unless you have been escorted by an Invigilator at all times.

You must only use black ink for your final answers on the Optical Mark Sheet, and any calculations may be done on the reverse of the Examination 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 – 432.0MHz
- 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

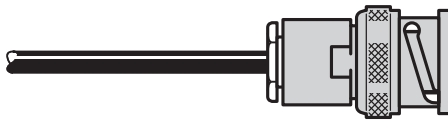
- 11** The bottom waveform in the diagram shows the



- 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

Candidate Declaration

*I declare that the responses on this Answer Sheet
are all my own work.*

Candidate's Signature

Candidate:

Exam: Amateur Radio Examination Foundation Level

Centre:

Date:



1.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
2.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
3.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
4.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
5.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
6.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
7.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
8.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
9.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
10.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
11.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
12.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
13.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
14.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
15.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
16.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
17.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
18.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
19.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
20.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
21.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
22.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
23.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
24.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
25.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>
26.	A	<input type="checkbox"/>	B	<input type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>

