

REGULATIONS

Additional Material – Answers.

Schedule 1

1. What are emission modes?

The International Telecommunication Union uses an internationally agreed system for classifying radio frequency signals. Wikipedia

2. What are the four components of an emission mode?

Each type of radio emission is classified according to its bandwidth, method of modulation, nature of the modulating signal, and type of information transmitted on the carrier signal.

3. C3F, J3E and R3E are examples of emission modes used by operators. What do these mean?

(a) C3F (AM or vestigial sideband carrier, analogue information, Television) or

(b) J3E; (AM or SSB, analogue information, Telephony) or

(c) R3E. (AM or SSB, analogue information, Telephony)

Distress and Urgency

4. What is the purpose of a distress call?

Distress signals are used to show that you need help and require immediate assistance. The signals are internationally recognised and must only be used if you are in distress.

5. What is the purpose of an urgency call?

The urgency call should be used when the distress call cannot be justified but there is an urgent message to transmit concerning the safety of the vessel or the safety of a person (for example, mechanical breakdown, medical emergency or a man overboard)

6. Complete the following table.

Call Type	Telegraphy	Telephony
Distress	SOS	Mayday
Urgency	XXX	Pan Pan

7. How many times should the distress or urgency signal be transmitted?

Three times e.g. Mayday, Mayday, Mayday or Pan Pan, Pan Pan, Pan Pan

8. You hear a distress call on the radio. What action should you take?

Monitor the frequency. If no response is heard, notify the authorities. Continue to monitor. If no response is heard, you should reply to the distress call.

9. The distress call is now on a frequency outside the amateur band. No other station has answered or reacted to the call. Your radio can transmit on this frequency. Outside of all other actions you performed, can you transmit a response to the station calling.

Yes

On Air

10. Before transmitting on a frequency, what actions should you take?

Listen

Transmit, "Is this frequency in use."

Listen

11. Making a call in the HF band, how many times should you announce your call sign?

Three times on HF bands and once on VHF and UHF

12. If calling a specific station, which station call sign is said first?

Station called then your station call sign.

13. Making a general call, what two letter code is used?

CQ

14. Making a call for contacts outside your country, what two by two letter code is used?

CQ DX

15. How often should you announce your call sign during a conversation on air?

Every 10 minutes

Q Codes

16. What are Q codes and why are they used?

The Q-code is a standardised collection of three-letter codes that each start with the letter "Q". It is an operating signal initially developed for commercial radiotelegraph communication and later adopted by other radio services, especially amateur radio.

17. What is the meaning of the following Q codes?

QTH - What is your location? My location is (H=home)

QSL - Can you acknowledge receipt? I am acknowledging receipt (L=letter)

QSY- Shall I change frequency? Change to another frequency.

QRX I will be right back. Please QRX one

QRK - What is the readability of my signals? The readability of your signals is ...

QRN - Are you troubled by static? I am troubled by static (N=noise)

QRM - Are you being interfered with? I am being interfered with (M= manmade)

18. What is the meaning of the following abbreviations?

K - Acknowledge

DE – This is.

PSE Please

UR - Your

MSG - Message

Phonetic Alphabet

19. Spell the following words phonetically.

Antenna - Alpha November Tango Echo November November Alpha

Transmitter – Tango Romeo Alpha November Mike India Tango Tango Echo Romeo

Ratio – Romeo Alpha Tango India Oscar

Quick – Quebec Uniform India Charlie Kilo

Signal Report

20. What are the three sections of a signal report.

Readability Signal Strength Tone

21. What is the number for the first section based on?

A readability scale of 1 - 5

22. Where is the number for the second section obtained?

The signal strength read from the meter on the radio.

23. A signal of what voltage at the receiver will produce a signal strength reading of S9?

50 micro volts

Repeater Operations

24. Where are the details of Australian repeaters found?

Australian Repeater Directory available online.

25. What is the offset?

Off set is the difference between the transmit and receive frequencies for a repeater.

Usually, 600 kHz for VHF and 5 MHz for UHF

26. What frequency is your radio set on receive for a repeater?

The radio receive frequency is the repeaters transmit frequency.

27. If a repeater requires CTCSS and your radio is not fitted with CTCSS, will you be able to work that repeater?

No. The repeater will ignore your transmissions.

