

EXAMINATION FOR THE AMATEUR RADIO OPERATORS' CERTIFICATE OF PROFICIENCY ISSUED
BY THE DIRECTOR GENERAL OF TELECOMMUNICATIONS OF SRI LANKA – (1998)
(ADVANCED CLASS)

Licensing Conditions, Operating Practices and Procedures

Two hours

Index No.

Answer **all** questions on this paper itself.
Pick out the correct answer and **underline it**.

1. An RF choke is connected between Antenna and Earth. The purpose of this choke is to
 - (a) help to gain more gain on the receiver.
 - (b) prevent excessive power been radiated.
 - (c) provide a dc path to prevent high voltage static build up.
 - (d) reject some interference

2. An amateur station is located about half a kilometer from the boundary of an airport . The antenna system should be erected so that
 - (a) it does not exceed 15 meters from the ground.
 - (b) it cannot be seen from the air.
 - (c) it does not exceed 15 meters from roof of it building , housing the station.
 - (d) it is within the building housing the station.
 - (e)

3. When using voice which of the following transmission will required the least bandwidth?
 - (a) SSB
 - (b) FM
 - (c) PM
 - (d) AM

4. A small ferrite bead is sometimes put on a transistor lead. Its purpose is to
 - (a) space the transistor above the printed circuit board.
 - (b) give a matching to 50 Ohm.
 - (c) screen the lead.
 - (d) prevent parasitic oscillation.

5. Test to ensure that no interference is caused by your transmission should be carried out at least
 - (a) every six months.
 - (b) every three months.
 - (c) every year
 - (d) from time to time.

6. A frequency synthesizer can generate unwanted radiation unless
 - (a) the control circuits are well screened.
 - (b) the digital circuits are in a plastic enclosure.
 - (c) the output is shorted to ground.
 - (d) none of these.

7. When conducting a QSO on VHF using F3E, the length of an over should be
 - (a) any length of time without further identification.
 - (b) no longer than two minutes.
 - (c) no longer than 15 minutes.
 - (d) any length of time with identification at least every 5 minutes.

8. The station can be closed down at any time
(a) a radio user experiencing interference.
(b) a demand from a person acting under authority of the licensing authority.
(c) a demand from a neighbor experiencing interference to his TV reception.
(d) a demand from a Radio Amateur operating on the same frequency band.
9. The suffix when operating from a Yacht is
(a) /AM (b) /MM (c) /M (d) /P
10. Providing prior authority had been obtained to operate from a different address the suffix to be used should be
(a) /P (b) /A (c) /T (d) /C
11. What does the term 73 means?
(a) Love and kisses (b) Wife (c) Keep out (d) Kind Regards
12. What does the term 88 means?
(a) Love and kisses (b) Wife (c) Keep out (d) Kind Regards
13. What does the term XYL means?
(a) Love and kisses (b) Wife (c) Keep out (d) Kind Regards
14. What type of messages are permitted to communicated by Radio Amateurs?
(a) S.O.S (b) May Day
(c) Messages of technical nature (d) Messages of relating of third party
15. What frequency is used as a “tone burst” in most Amateur repeaters?
(a) 1850 Hz (b) 1700 Hz (c) 1750 Hz (d) 1725 Hz
16. Which of the following represents a fairly good signal strength using RST code?
(a) R5 (b) S2 (c) S8 (d) S5
17. J3E stands for
(a) Single Side Band Suppressed Carrier
(b) Frequency Modulation
(c) Television Broadcasting
(d) Amplitude Modulation
18. F3E stands for
(a) Single Side Band Suppressed Carrier
(b) Frequency Modulation
(c) Television Broadcasting
(d) Amplitude Modulation
19. A3E stands for
(a) Single Side Band Suppressed Carrier
(b) Frequency Modulation
(c) Television Broadcasting
(d) Amplitude Modulation
20. The Q code for ‘standby’ is
(a) QRX (b) QRS (c) QRL (d) QRN
21. The Q code for ‘send slowly’ is
(a) QRX (b) QRS (c) QRL (d) QRN

22. The Q code for 'I am busy' is
 (a) QRX (b) QRS (c) QRL (d) QRN
23. The Q code for 'I am affected by static' is
 (a) QRX (b) QRS (c) QRL (d) QRN
24. The call sign 4S5XX is issued for
 (a) Novice A class (b) Novice B class (c) General class (d) Advance class
25. An audio amplifier is experiencing break-through from a 2-meter amateur transmission . Which type of the capacitor s will you use for RF decoupling?
 (a) 100 microfarad electrolytic (b) 100 pF ceramic
 (c) 0.5 pF silver mica (d) 10 microfarad tantalum
26. Which of the following bands are shared with other services?
 (a) 3.5 – 3.9 MHz (b) 7.0 – 7.1 MHz (c) 14.0 – 14.350 MHz (d) 21 – 21.450 MHz
27. The final frequency of a transmitter is obtained by mixing the vfo signal with that of a crystal oscillator. A severe drift occurs in the transmission. This may be due to
 (a) the crystal oscillator. (b) the VFO. (c) the final stage. (d) the mixer.
28. The minimum equipment for checking harmonics of a radiated signal in an Amateur station should be
 (a) an absorption wave meter. (b) a frequency counter.
 (c) a spectrum analyzer, (d) a grid dip meter.
29. When the carrier of a FM transmitter is over deviated
 (a) only one side band is generated (b) only two side bands are generated.
 (c) no side bands are generated. (d) excessive number of side bands are generated.
30. To minimise the coupling to other antenna in the vicinity the transmitting antenna should be
 (a) placed above the other antenna. (b) placed below the other antenna.
 (c) placed as far as possible from the other antenna. (d) vertically polarized.
31. Slow Scan Television means a system of Telecommunication for the transmission of transient images fixed or moving images using
 (a) low frequency bands. (b) broad bandwidths. (c) UHF bands. (d) narrow bandwidths.
32. Spurious emissions include
 (a) results of the modulation process of transmission.
 (b) emission of the immediate vicinity.
 (c) harmonic emissions, parasitic emissions , and intermodulation products.
 (d) any emissions, radiation or induction which endangers the radio navigation service.
33. An operation method in which transmission is made possible simultaneously in both direction
 (a) Duplex operation (b) Simplex operation
 (b) SSB operation (d) Facsimile transmission
34. In the International Radio Telephone Service the Distress message is
 (a) Pan Pan Pan (b) Security Security Security
 (c) Prudence Prudence Prudence (d) Mayday Mayday Mayday
35. In the International Radio Telephone Service the Urgency message is
 (a) Pan Pan Pan (b) Security Security Security
 (c) Prudence Prudence Prudence (d) Mayday Mayday Mayday

36. In the International Radio Telephone Service the Safety message is
 (a) Pan Pan Pan (b) Security Security Security
 (c) Prudence Prudence Prudence (d) Mayday Mayday Mayday
37. Abbreviation AR means
 (a) all received. (b) all right. (c) advice received. (d) end of transmission.
38. Abbreviation VA means
 (a) end of work. (b) vacated (c) variation (d) word after
39. Abbreviation BK means
 (a) all between. (b) beginning.
 (c) breakdown in transmission. (d) interrupt a transmission which is in progress.
40. Modulation is permitted by recordings, which are
 (a) music which are not copyright.
 (b) from an amateur station not involved in an QSO.
 (c) containing a constant or steadily varying audio frequency tones.
 (d) containing the call signs of the called station and the calling station.
41. A visiting radio amateur call sign JA1VOG is permitted to operate from Sri Lanka during his stay here, what will be the call sign designated to him?
 (a) 4S7/JA1VOG (b) JA1VOG/4S7 (c) JA1VOG/4S7/R (d) JA1VOG/R
42. On frequency bands below 30 MHz, the P.E.P of spurious emissions shall not exceed
 (a) 10 micro watt (b) 01 mW (c) 25 micro watt (d) 25 mW
43. On frequency bands above 30 MHz, the P.E.P of spurious emissions shall not exceed
 (a) 10 micro watt (b) 01 mW (c) 25 micro watt (d) 25 mW
44. Phone patched traffic is defined as
 (a) telephone messages transmitted over amateur radio.
 (b) telephone conversations recorded and relayed over amateur radio.
 (c) tapping telephone traffic.
 (d) messages transmitted and received by the interconnection of amateur radio equipment to a public or a private telephone network.
45. An amateur mobile station is defined as
 (a) an amateur station shifted from time to time different locations.
 (b) a walkie talkie radio system
 (c) an amateur station installed in a vehicle, ship or aircraft.
 (d) an amateur station located in a temporary location.
46. In which of the bands is it permitted to use fast scan television?
 (a) 423 – 440 MHz (b) 144 – 146 MHz (c) 28 – 29.7 MHz 70.025 – 70.5 MHz
47. The maximum power supplied to the antenna on VHF for advanced class operator should be
 (a) 100 Watts. (b) 50 Watts (c) 25 Watts (d) 10 Watts
48. The maximum power supplied to the antenna on HF for advanced class license holders
 (a) 1000 Watts. (b) 500 Watts (c) 250 Watts (d) 100 Watts
49. SSB suppressed carrier is denoted
 (a) A3E (b) F3E (c) R3E (d) J3E

50. Double side band full carrier is denoted

(a) A3E

(b) F3E

(c) R3E

(d) J3E