

1. According to the Telecommunications Order 2001, any person who establishes, installs, maintains, provides or operates a radio-communication service or any radio-communication equipment in any place or on board any vessel, aircraft or in any vehicle in Brunei Darussalam without a licence shall be guilty of an offence. Which of the statement below is CORRECT?
 - A. Any person guilty of an offence shall be liable on conviction to a fine not exceeding \$10,000, imprisonment for a term not exceeding 3 years or both.
 - B. Any person guilty of an offence shall be liable on conviction to a fine not exceeding \$50,000, imprisonment for a term not exceeding 3 years or both.
 - C. Any person guilty of an offence shall be liable on conviction to a fine not exceeding \$10,000, imprisonment for a term not exceeding 1 year or both.
 - D. No fine applies.

2. If you purchase amateur radio equipment from outside the country, what is the right thing to do upon arrival at the custom's control post?
 - A. Declare the equipment and pay import duty to the Royal Customs and Excise officials.
 - B. Bring in the said equipment without notifying any agencies.
 - C. Do not declare the equipment to the Royal Customs and Excise officials.
 - D. Bring the equipment directly to AITI officials.

3. How soon you can operate or transmit Amateur Radio after your Amateur Radio Examination?
 - A. As soon as AITI grants you an Amateur Apparatus Licence.
 - B. Immediately without any Amateur Apparatus Licence.
 - C. 30 days after the examination date.
 - D. Once you pass your examination.

4. Which of the following is NOT an offence against the Telecommunications Order, 2001:
 - A. Operating another operator's radio equipment where both users are licenced.
 - B. Selling radio equipment without a licence.
 - C. Operating an unapproved radio equipment on an unlicensed band.
 - D. Operating an approved radio equipment with an expired operating licence.

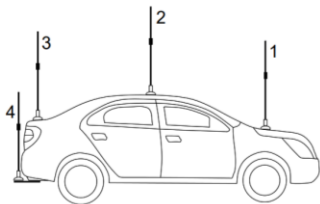
5. Which of the conversation below should be avoided when using an amateur radio?
- A. Religion, Business, Politics, Racial and Ethnic Slurs.
 - B. Hobbies, Education, and Entertainment.
 - C. Sport, Personal details and Socializing
 - D. Weather, Location and Q-Codes.
6. Prior to transmitting a message, a licensed Amateur Radio operator should always:
- A. Check earthing.
 - B. Listen to check whether the frequency is clear.
 - C. Check antennas.
 - D. Check power supplies.
7. Define radio communications?
- A. The art of talking to another station.
 - B. The art of communication by means of telephones.
 - C. All communication by means of radio waves.
 - D. All communication by radio telephone.
8. What information or details are required to be recorded in logbook for Amateur Radio operators when transmitting?
- A. Duration of conversation time, station callsign which with you are communicating with, frequency band and emission.
 - B. Duration of conversation time, station which with you are communicating with, frequency band, emission and power output, signal report, QSL.
 - C. Date, frequency band and emission, power output, conversation time, signal report, statement.
 - D. Date, frequency band and emission, power output, station callsign which you are communicating with, start and end of conversation time, signal report, QSL.
9. What is the Amateur Apparatus Licence fee for a repeater station?
- A. BND 20 per unit.
 - B. BND 25 annually per equipment.
 - C. BND 100 annually per equipment.
 - D. No fee is required.

10. The correct International phonetic code for the callsign V85NATO is:
- A. Victor Eighty-Five November Apple Tango Omega.
 - B. Victory Eighty-Five November Alpha Tango Oscar.
 - C. Vicky Eighty-Five Norway Alpha Thailand Orange.
 - D. Victor Eighty-Five November Alpha Tango Oscar.
11. You installed a 144MHz transceiver for marine operation on your boat to operate as an Amateur Radio mobile station. Under which of the following conditions is operating permitted?
- A. Anywhere, provided the boat remains in Brunei Darussalam waters.
 - B. On inland waterways and river but not in docks, estuaries or harbours.
 - C. Not permitted at all.
 - D. Only with special permission from AITI.
12. A station 'Callsign' is sent for the purpose of identification at the start of transmission and end of transmission. It should...
- A. Be mentioned once after the first 60 minutes.
 - B. Be mentioned once after the first 15 minutes.
 - C. Be repeated every 15 minutes.
 - D. Be repeated every 60 minutes.
13. If an Amateur Radio licensee intends to renew their licence, they must:
- A. Renew through AITI Online Services.
 - B. Apply at AITI Counter Service.
 - C. Disconnect their Amateur Radio equipment and bring to AITI office.
 - D. Inform their Amateur Radio association.
14. For Amateur Radio special events such as Jamboree On The Air, AITI allocates call sign with the following prefix:
- A. V84S.
 - B. V85S.
 - C. V88S.
 - D. V89S.

15. If an amateur radio licensee is absent overseas, the base station may be used by:
- A. Any member of the immediate family to maintain contact with only the licensee.
 - B. The immediate family to communicate with any amateur radio licensee.
 - C. Another amateur radio licensee with consent of the owner.
 - D. None of the above.
16. How many types of Amateur Radio licence issued by Authority for Info-communications Technology Industry of Negara Brunei Darussalam (AITI).
- A. One – Standard Class Licence.
 - B. Two – Standard and Advanced Class Licences.
 - C. Three – Standard, Advanced and Temporary Class Licences.
 - D. Four - Standard, Advanced, Foreign and Temporary Class Licences.
17. In what Region and Zone is Brunei Darussalam located according to the International Telecommunication Union (ITU) for Radio Amateur operations?
- A. Region 38, Zone 2.
 - B. Region 28, Zone 3.
 - C. Region 3, Zone 38.
 - D. Region 3, Zone 28.
18. Which of the following statement is correct:
- A. An amateur radio station may only be used to communicate with another private network radio station.
 - B. An amateur radio station may only be used to communicate with another broadcasting station.
 - C. An amateur radio station may only be used to communicate with an illegal radio station.
 - D. An amateur radio station may only be used to communicate with another amateur radio station.
19. What is the activity known as fox hunting?
- A. Using receivers and direction-finding techniques attempt to locate a hidden transmitter.
 - B. Transmitting equipment and direction-finding techniques attempt to locate a hidden receiver.
 - C. Helping the government track radio-transmitter collars attached to animals.
 - D. Assemble stations using generators and portable antennas to test their emergency communications skills.

20. If an Amateur Radio licensee changes his/her residential address or car registration number (where the radio equipment is placed), he/she should notify:
- A. Royal Brunei Police Force.
 - B. Post Office.
 - C. The local Radio Club.
 - D. Authority for Info-communications Technology Industry of Negara Brunei Darussalam (AITI).
21. When using a repeater to communicate, which of the following do you need to know about the repeater?
- A. The owner of the repeater.
 - B. Its power level and location.
 - C. Whether or not it has Ams patch.
 - D. Its input frequency and offset.
22. Brunei Darussalam mains power supply is?
- A. 230V D.C.
 - B. 230V 60Hz.
 - C. 240V 100Hz.
 - D. 240V 50Hz.
23. Which one of the following would NOT be found in a radio receiver?
- A. Audio amplifier.
 - B. RF power amplifier.
 - C. Detector (demodulator).
 - D. Tuning and RF amplifier.
24. What is the most serious risk when working with equipment that uses high voltages?
- A. High Voltage equipment is complicated and hard to repair.
 - B. There is a risk of receiving a fatal electric shock.
 - C. Spare parts are harder to obtain.
 - D. Equipment is likely to develop a fault.
25. The only general call allowed from an amateur station is:
- A. A new bulletin,
 - B. A CQ call.
 - C. On VHF.
 - D. A third-party call.

26. Which is the BEST location to place a mobile antenna?



- A. Location 1.
- B. Location 2.
- C. Location 3.
- D. Location 4.

27. What is the 'Q' code for "Is my transmission being interfered with"?

- A. QRM.
- B. QRN.
- C. QTH.
- D. QSA.

28. When calling another station, the station replies in an offensive manner. You should

- A. Reply and accept the contact, as if nothing offensive was said.
- B. Ignore the offensive station and make no reference to having heard it.
- C. Advise the station that they will be reported to the police
- D. Complain, on-air, about the offensive station.

29. Amateur Radio operators are authorised to use:

- A. Bands authorised for amateur and Citizen Band use only.
- B. Any frequency that is not being used.
- C. Bands authorised for amateur use.
- D. All frequencies allocated, including marine and aeronautical.

30. When calling a station, it is good practice to:

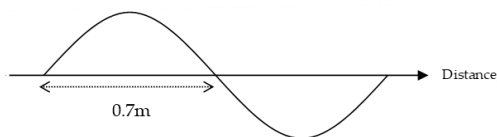
- A. Put your callsign first.
- B. Use your callsign only.
- C. Use the callsign of other station only.
- D. Put the callsign of the station being called first.

[END OF SECTION A MULTIPLE-CHOICE QUESTIONS]

1. What does a variable resistor or potentiometer do?
 - A. Its resistance changes when AC is applied to it.
 - B. It transforms a variable voltage into a constant voltage.
 - C. To create an open circuit when there is too much current in a circuit.
 - D. Its resistance changes when its slide or contact is moved.
2. What is the advantage of a quarter-wave vertical ground-plane antenna for DX working on 21MHz?
 - A. Small size.
 - B. All-round radiation.
 - C. Low radiation angle.
 - D. Good matching to the feeder.
3. How do you test an ammeter connected to a circuit?
 - A. In quadrature with the circuit.
 - B. In series with the circuit.
 - C. In parallel with the circuit.
 - D. A phase with the circuit.
4. The output from the transmitter should be connected to the antenna by:
 - A. Coaxial cable.
 - B. Waterproof mains cable.
 - C. Screened audio cable.
 - D. Fuse wire.
5. A transformer is used to balance a transmission line of 4.0 Ohm with a 2020 Ohm antenna. What is the ratio required for the transformer to do this?
 - A. 1 : 505
 - B. 1 : 8080
 - C. 1 : 1010
 - D. 1 : 2020
6. The frequency of a Variable Frequency Oscillator (VFO) is determined by:
 - A. The supply voltage.
 - B. The type of transistor used.
 - C. The particular circuit used.
 - D. The inductance and capacitance of the tuned circuit.

7. Define the function of Low-pass filter and High-pass filter respectively?
- A. Restrict high frequency and restrict low frequency.
 - B. Restrict low frequency and restrict high frequency.
 - C. Channeling high frequency and channeling low frequency.
 - D. None of the above.
8. Which components can amplify a small signal using low voltages?
- A. PNP transistor.
 - B. Transformer.
 - C. Mega Cell Battery.
 - D. Resistor.
9. Define which antenna comprises of a center-fed driven element for transmitting or receiving radio frequency energy?
- A. Omni-directional Antenna.
 - B. Half wavelength dipole.
 - C. Yagi Antenna.
 - D. Straight wire antenna.
10. Groundwaves are defined as:
- A. Radio waves that reflect off the ionosphere.
 - B. Radio waves traveling along the Earth's surface.
 - C. Radio waves that are absorb by the ground.
 - D. None of the above.
11. Over driving a power amplifier will:
- A. Give a high SWR.
 - B. Give minimum distortion on receive.
 - C. Generate excessive harmonics.
 - D. Minimize power output.
12. A 50 hertz current in a wire means that:
- A. A cycle is completed 50 times in each second.
 - B. A potential difference of 50 volts exists across the wire.
 - C. the current flowing in the wire is 50 amperes.
 - D. the power dissipated in the wire is 50 watts.

13. What is the frequency of the signal shown below at speed 3×10^8 m/s, if both half-cycle are of equal length?

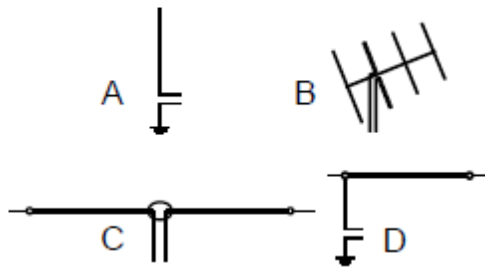


- A. 300 MHz.
 - B. 214 MHz.
 - C. 21 Hz.
 - D. 429 MHz.
14. Which of the following sets of components are used to make RF filters?
- A. Diodes and resistors.
 - B. LEDs and capacitors.
 - C. Inductor capacitors.
 - D. Zener diodes and inductors.
15. Why is it necessary for a 'Directional High-Gain' antenna to be placed higher than the surrounding buildings?
- A. To prevent it from collapsing.
 - B. To avoid the antenna from damaging nearby buildings with its RF power.
 - C. For the antenna to receive greater universal wave and low wave.
 - D. To avoid the antenna from directing its excess RF power to the people in nearby buildings.
16. Loss in feeder increases with:
- A. Transmit power.
 - B. Length of the feeder cable.
 - C. Lower transmit frequencies.
 - D. Higher gain antennas.
17. What kind of amateur station simultaneously retransmits the signals of other stations on a different channel?
- A. Telecommand station.
 - B. Space station.
 - C. Repeater station.
 - D. Relay station.

18. To measure current in a series circuit, the multi-meter test probes should be connected?
- A. In parallel with the relevant circuit.
 - E. In parallel with the component under test with the battery disconnected.
 - B. In series with the relevant components in the circuit.
 - C. In series with the component under test with the battery disconnected.
19. The purpose of the demodulator in a radio receiver is to?
- A. Remove the carrier leaving just the two sidebands.
 - B. Ensure the levels applied to the mixer are of constant amplitude.
 - C. Ensure the local oscillator is on the correct frequency.
 - D. Recover the audio signal from the intermediate frequency.
20. Repeaters utilize different transmit and receiver frequencies because:
- A. If they use a single frequency the listener would receive signals both from the sender and the repeater, which could cause interference and distortion.
 - B. Users would be unable to check that the repeater was operating correctly by listening on its output frequency.
 - C. The licence does not allow repeaters to transmit and receive in the same band.
 - D. If they use a single frequency their transmit would overload their receiver and make it impossible to hear any caller.
21. The purpose of a 2-meter repeater is to:
- A. Provide amateur operation without the use of callsigns.
 - B. Provide communication for emergency purposes.
 - C. Make possible VHF contacts over longer distance.
 - D. Experiment with frequency shift techniques.
22. When using voice, which of the following modes of transmissions required the least bandwidth?
- A. Single sideband.
 - B. Phase modulation.
 - C. Amplitude modulation.
 - D. frequency modulation.
23. The sensitivity of a receiver can be degraded by:
- A. Strong RF signals on a nearby frequency.
 - B. good RF filtering.
 - C. incorrect adjustment of the volume control.
 - D. Removing all crystals.

24. To obtain high frequency stability in a transmitter, the VFO should be:
- A. Run from a non-regulated AC supply
 - B. Powered from a regulated DC supply.
 - C. Able to change frequency with temperature.
 - D. In a plastic box.
25. The resonant frequency of a tuned circuit can be checked by:
- A. An Ohm-Meter.
 - B. Digital Frequency Meter.
 - C. DIP Oscillator.
 - D. DC Voltmeter.
26. What is the Amateur Radio station called that transmits communications for the purpose of observation of propagation and reception?
- A. A repeater.
 - B. An auxiliary station.
 - C. Radio control station.
 - D. A beacon.
27. How can amateur station equipment best be protected from lightning damage?
- A. Use heavy insulation on the wiring.
 - B. Never turn off the equipment.
 - C. Disconnect the ground system from all radios.
 - D. Disconnect all equipment from the power lines and antenna cables.
28. The purpose of using three wires in the mains power cord and plug on amateur radio equipment is to:
- A. Make it inconvenient to use.
 - B. Prevent the chassis from becoming live in case of an internal short to the chassis.
 - C. prevent the plug from being reversed in the wall outlet.
 - D. prevent short circuits.
29. The following should always be included as a standard protection device in any power supply:
- A. A saturating transformer.
 - B. A fuse in the mains lead.
 - C. A Zener diode bridge limiter.
 - D. A fuse in the filter capacitor negative lead.

30. Which drawing shows a dipole antenna?



- A. Drawing A.
- B. Drawing B.
- C. Drawing C.
- D. Drawing D.

[END OF SECTION B MULTIPLE-CHOICE QUESTIONS]