01-7
An authorised officer from the Ministry of Business, Innovation & Employment can inspect a General Amateur Operator's Certificate of Competency:
a at any time
b during business hours
c at any time but not on public holidays
d at any time but not after 9 p.m.

02-1
As the holder of a General Amateur Operator Certificate of Competency, you may operate transmitters in your station:
a any number at one time
b only one at any time except in emergencies
c one at a time
d any number but must be on different bands

03-6
Repeater equipment and frequencies used by New Zealand radio amateurs are co-ordinated by:
a a panel of repeater trustees
b the Ministry of Business, Innovation & Employment
c representatives from affected radio clubs
d the NZART Frequency Management and Technical Advisory Group

04-2
The maximum output power permitted from an amateur station is:
a that needed to overcome interference from other stations on the frequency you use
b 400 watt mean power adjusted for antenna gain
c specified in the amateur radio General User Radio Licence
d the output rating of your final amplifier

05-2
Callsigns and General Amateur Operator Certificates of Competency are issued pursuant to the Regulations by the:
a local radio club tutors
b Minister of Communications
c Department of External Affairs
d Ministry of Business, Innovation & Employment Approved Radio Examiners

06-2
If you receive distress traffic and are unable to render assistance, you should:
a log the circumstances and close down
b continue with what you were doing
c maintain watch until you are certain that assistance is forthcoming
d take no action

07-3
A station using the callsign "VK3XYZ stroke ZL" is heard on your local VHF repeater. This is:
a the station of an overseas visitor
b a confused person, probably with a stolen transceiver
c an unauthorised callsign
d an illegal operator

08-5
In New Zealand, the "15 metre band" frequency limits are:
a 21.00 to 21.45 MHz
b 21.00 to 21.40 MHz
c 21.00 to 21.35 MHz
d 21.00 to 21.30 MHz

09-0
Operation on the 130 to 190 kHz band requires:
a a vertical half-wave dipole antenna
b special permission to operate in hours of darkness
c power output limited to a maximum of 5 watt e.i.r.p.
d receivers and computers with sound cards

10-2
In the classic model of the atom:
a the neutrons and the electrons orbit the nucleus
b the protons and the neutrons orbit the nucleus in opposite directions
c the electrons orbit the nucleus
d the protons orbit around the neutrons

11-0
The plastic coating around wire is:
a a conductor
b an inductor
c an insulator
d a magnet

12-9
The unit of resistance is the:
a ohm
b farad
c watt
d resistor

13-5
A current of 2 ampere flows through a 16 ohm resistance. The applied voltage is:
a 8 volt
b 32 volt
c 14 volt
d 18 volt

14-7
The ohm is the unit of:
a supply voltage
b electrical resistance
c electrical pressure
d current flow

15-8
Two resistors are connected in parallel. One is 75 ohm and the other is 50 ohm. The total resistance of this parallel circuit is:
a 10 ohm
b 70 ohm
c 30 ohm
d 40 ohm

16-9
The following resistor combination can most nearly replace a single 150 ohm resistor:
a three 47 ohm resistors in series
b four 47 ohm resistors in parallel
c five 33 ohm resistors in parallel
d five 33 ohm resistors in series

17-1
Two resistors are in parallel. Resistor A carries twice the current of resistor B, which means that:
a B has half the resistance of A
b A has half the resistance of B
c the voltage across A is twice that across B
d the voltage across B is twice that across B

18-0
A transmitter power amplifier requires 30 mA at 300 volt. The DC input power is:
a 300 watt
b 9000 watt
c 6 watt
d 9 watt

19-0
The following two quantities should be multiplied together to find power:
a resistance and capacitance
b voltage and inductance
c voltage and current
d inductance and capacitance

20-0
An "alternating current" is so called because:
a it reverses direction periodically
b its direction of travel can be altered by a switch
c its direction of travel is uncertain
d it travels through a circuit using alternate paths

21-4
The material separating the plates of a capacitor is the:
a semiconductor
b dielectric
c resistor
d lamination

22-5
An inductor and a capacitor are connected in series. At the resonant frequency, the resulting impedance is:
a totally reactive
b maximum
c minimum
d totally inductive

23-5
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 plug from being reversed in the wall outlet
c prevent short circuits
d prevent the chassis from becoming live in case of an internal short to the chassis

24-9
The following material is considered to be a semiconductor:
a copper
b sulphur
c silicon
d tantalum

25-0
A varactor diode acts like a variable:
a resistance
b capacitance
c voltage regulator
d inductance

26-8
This is usually found on the inside of a thermionic valve:
a argon
b air
c neon
d a vacuum

27-5
When measuring the current drawn by a receiver from a power supply, the current meter should be placed:
a in parallel with both receiver power supply leads
b in parallel with one of the receiver power leads
c in series with one of the receiver power leads
d in series with both receiver power leads

28-3
A transmitter power amplifier has a gain of 20 dB. The ratio of the output power to the input power is:
a 10
b 20
c 100
d 40

29-4
In an HF station, the "linear amplifier" is:
a an amplifier to remove distortion in signals from the transceiver
b an amplifier with all components arranged in-line
c a push-pull amplifier to cancel second harmonic distortion
d an optional amplifier to be switched in when higher power is required

30-7
In a frequency modulation receiver, this is located between the limiter and the audio frequency amplifier:
a the frequency discriminator
b the intermediate frequency amplifier
c the speaker and/or headphones
d the high frequency oscillator

31-7
In a single sideband and CW receiver, the output from this is connected to the product detector:
a the mixer
b the beat frequency oscillator
c the radio frequency amplifier
d the audio frequency amplifier

32-3
The figure in a receiver's specifications which indicates its sensitivity is the:
a signal plus noise to noise ratio
b bandwidth of the IF in kilohertz
c audio output in watts
d number of RF amplifiers

33-2
An RF amplifier ahead of the mixer stage in a superhet receiver:
a enables the receiver to tune a greater frequency range
b means no BFO stage is needed
c increases the sensitivity of the receiver
d makes it possible to receive SSB signals

34-6
A superhet receiver receives an incoming signal of 3540 kHz and the local oscillator produces a signal of 3995 kHz. The IF amplifier is tuned to:
a 3540 kHz
b 3995 kHz
c 7435 kHz
d 455 kHz

35-8
It is very important that the oscillators contained in a superhet receiver are:
a sensitive and selective
b stable and sensitive
c selective and spectrally pure
d stable and spectrally pure

36-5
Front-end selectivity is provided by resonant networks both before and after the RF stage in a superhet receiver. This whole section of the receiver is often referred to as the:
a preamble
b preselector
c preamplifier
d pass-selector

37-6
In a frequency modulation transmitter, the power amplifier output is fed to the:
a frequency multiplier
b microphone
c antenna
d modulator

38-4
In a single sideband transmitter, this is located between the balanced modulator and the mixer:
a radio frequency oscillator
b speech amplifier
c filter
d microphone

39-5
Several stations advise that your FM simplex transmission in the "two metre" band is distorted. The cause might be that:
a the transmitter modulation deviation is too high
b your antenna is too low
c the transmitter has become unsynchronised
d your transmitter frequency split is incorrect

40-3
Increased harmonic output may be produced in a transmitter by:
a overdriven amplifier stages
b a linear amplifier
c a low SWR
d resonant circuits

41-1
Parasitic oscillations are to be avoided because:
a they cause possible interference to other users of the radio frequency spectrum
b they do not radiate very far
c some cannot be adequately controlled
d they do not always follow your modulation

42-9
Electrolytic capacitors are used in power supplies because:
a they are tuned to operate at 50 Hz
b they can be obtained in larger values than other types
c they have very low losses compared to other types
d they radiate less RF noise than other types

43-2
A transformer is used in a power supply to:
a transform the incoming mains AC voltage to a DC voltage
b ensure that any RF radiation cannot get into the power supply
c transform the mains AC voltage to a more convenient AC voltage
d transform the mains AC waveform into a higher frequency waveform

44-8
Before calling CQ on the HF bands, you should:
a request that other operators clear the frequency
b request a signal report from any station listening
c listen first, then ask if the frequency is in use
d use a frequency where many stations are already calling

45-4
The standard frequency offset (split) for 2 metre repeaters in New Zealand is:
a plus 600 kHz below 147 MHz, minus 600 kHz on or above 147 MHz
b minus 5 MHz below 147 MHz, plus 5 MHz kHz on or above 147 MHz
c plus 5 MHz below 147 MHz, minus 5 MHz kHz on or above 147 MHz
d plus 600 kHz above 147 MHz, minus 600 kHz on or below 147 MHz

46-4
The "RIT" control on a transceiver:
a reduces interference on the transmission
b changes the frequency of the transmitter section without affecting the frequency of the receiver section
c changes the frequency of the receiver section without affecting the frequency of the transmitter section
d changes the transmitting and receiver frequencies by the same amount

47-2
The "Q signal" requesting the other station to send slower Morse code is:
a QRL
b QRN
c QRM
d QRS

48-7
An RF transmission line should be matched at the transmitter end to:
a prevent frequency drift
b transfer maximum power to the antenna
c overcome fading of the transmitted signal
d ensure that the radiated signal has the intended polarisation

49-5
An instrument to check whether RF power in the transmission line is transferred to the antenna is:
a an antenna tuner
b a standing wave ratio meter
c a dummy load
d a keying monitor

50-9
Radio wave polarisation is defined by the orientation of the radiated:
a electric field
b magnetic field
c inductive field
d capacitive field

51-6
The effect of adding a series inductance to an antenna is to:
a increase the resonant frequency
b have no change on the resonant frequency
c have little effect
d decrease the resonant frequency

52-2
This property of an antenna broadly defines the range of frequencies to which it will be effective:
a front-to-back ratio
b impedance
c bandwidth
d polarisation

53-5
The reflector and director(s) in a Yagi antenna are called:
a oscillators
b parasitic elements
c tuning stubs
d matching units

54-5
That portion of HF radiation which is directly affected by the surface of the earth is called:
a ground wave
b local field wave
c inverted wave
d ionospheric wave

55-8
VHF and UHF bands are frequently used for satellite communication because:
a the Doppler frequency change caused by satellite motion is much less than at HF
b satellites move too fast for HF waves to follow
c waves at these frequencies travel to and from the satellite relatively unaffected by the ionosphere
d the Doppler effect would cause HF waves to be shifted into the VHF and UHF bands

56-6
The skip distance of a sky wave will be greatest when the:
a ionosphere is most densely ionised
b signal given out is strongest
c angle of radiation is smallest
d polarisation is vertical

57-0
Electromagnetic compatibility is:
a two antennas facing each other
b more than one relay solenoid operating simultaneously
c the ability of equipment to function satisfactorily in its own environment, without introducing intolerable electromagnetic disturbances
d the inability of equipment to function satisfactorily together and produce tolerable electromagnetic disturbances

58-0
When the signal from a transmitter overloads the audio stages of a broadcast receiver, the transmitted signal:
a appears only when a broadcast station is received
b is distorted on voice peaks
c appears on only one frequency
d can be heard irrespective of where the receiver is tuned

59-0
A low-pass filter may be used in an amateur radio installation:
a to attenuate signals lower in frequency than the transmission
b to boost the output power of the lower frequency transmissions
c to attenuate signals higher in frequency than the transmission
d to boost the power of higher frequency transmissions

60-5
In digital communications, BPSK stands for:
a binary phase shift keying
b baseband polarity shift keying
c band pass selective keying
d burst pulse signal keying