01-9
The holder of a General Amateur Operator Certificate of Competency may:
a retransmit public broadcasts
b transmit in bands allocated to the Amateur Service
c repair radio equipment for profit
d transmit on public service frequencies

02-0
As the holder of a New Zealand General Amateur Operator Certificate of Competency, you may operate:
a within your local Postal District
b anywhere in the world
c only at your home address
d anywhere in New Zealand and in any other country that recognises the Certificate

03-8
A person may hold a General Amateur Operator Certificate of Competency after reaching this minimum age:
a 18 years
b 21 years
c there is no age limit
d the age for holding a motor vehicle driver's licence

04-4
Your amateur station is identified by transmitting your:
a full name and address
b "handle"
c first name and location
d callsign

05-5
A General Amateur Operator Certificate of Competency:
a expires after 12 months
b contains the unique callsign(s) to be used by that operator
c is transferable to any member of the family
d gives licence for the transmission of radio waves

06-7
Amateur radio operators may knowingly interfere with other radio communications or signals:
a when tuning up a transmitting system
b never
c when another station already occupies your proposed transmitting frequency
d if resulting interference is going to be inevitable

07-9
A General Amateur Operator Certificate of Competency:
a has a limited life-time
b does not confer on its holder a monopoly on the use of any frequency or band
c is transferable to your descendants
d provides a waiver over copyright

08-6
In New Zealand, the "10 metre band" frequency limits are:
a 28.00 to 28.55 MHz
b 28.00 to 28.65 MHz
c 28.00 to 29.70 MHz
d 28.00 to 29.75 MHz

09-8
When the Amateur Service is a secondary user of a band and another service is the primary user, this means:
a nothing at all, because all services have equal rights to operate
b amateurs may only use the band during declared emergencies
c the band may be used by amateurs provided harmful interference is not caused to other services
d you may increase transmitter power to overcome any interference

10-8
The term describing opposition to electron flow in a circuit is:
a current
b voltage
c power
d resistance

11-6
An electrical insulator:
a lets electricity flow through it in one direction
b lets electricity flow through it
c lets electricity flow through it when light shines on it
d does not let electricity flow through it

12-6
The unit for the potential difference between two points in a circuit is the:
a ampere
b ohm
c volt
d coulomb

13-1
A current of 10 mA is measured in a 500 ohm resistor. The voltage across the resistor will be:
a 50 volt
b 5 volt
c 500 volt
d 5000 volt

14-1
A circuit has a total resistance of 100 ohm and 50 volt is applied across it. The current flow will be:
a 500 mA
b 50 mA
c 2 ampere
d 20 ampere

15-0
The total resistance in a parallel circuit:
a depends upon the voltage drop across each branch
b could be equal to the resistance of one branch
c is always less than the smallest branch resistance
d depends upon the applied voltage

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

17-7
Two 33 ohm resistors are connected in series with a power supply. If the current flowing is 100 mA, the voltage across one of the resistors is:
a 3.3 volt
b 66 volt
c 33 volt
d 1 volt

18-5
A current of 500 milliamp passes through a 1000 ohm resistance. The power dissipated is:
a 250 watt
b 0.25 watt
c 2.5 watt
d 25 watt

19-1
The following two electrical units multiplied together give the unit "watt":
a volt and farad
b volt and ampere
c farad and henry
d ampere and henry

20-3
The current in an AC circuit completes a cycle in 0.1 second. So the frequency is:
a 1 Hz
b 1000 Hz
c 100 Hz
d 10 Hz

21-5
Three 15 picofarad capacitors are wired in parallel. The value of the combination is:
a 18 picofarad
b 12 picofarad
c 5 picofarad
d 45 picofarad

22-8
An inductor and a capacitor form a resonant circuit. If the value of the inductor is decreased by a factor of four, the resonant frequency will:
a increase by a factor of two
b increase by a factor of four
c decrease by a factor of two
d decrease by a factor of four

23-0
You can safely remove an unconscious person from contact with a high voltage source by:
a pulling an arm or a leg
b turning off the high voltage and then removing the person
c wrapping the person in a blanket and pulling to a safe area
d calling an electrician

24-5
A low-level signal is applied to a transistor circuit input and a higher-level signal is present at the output. This effect is known as:
a detection
b modulation
c amplification
d rectification

25-3
Bipolar transistors usually have:
a 4 connecting leads
b 1 connecting lead
c 3 connecting leads
d 2 connecting leads

26-0
In a tetrode valve, the electron flow is from the:
a cathode through the control grid then screen grid to the anode
b emitter through the control grid to the collector
c cathode through the screen grid then control grid to the anode
d source through the Faraday shield to the drain

27-6
An ammeter should not be connected directly across the terminals of a 12 volt car battery because:
a no current will flow because no other components are in the circuit
b the resulting high current will probably destroy the ammeter
c the battery voltage will be too low for a measurable current to flow
d the battery voltage will be too high for a measurable current to flow

28-7
Two amplifiers with gains of 10 dB and 40 dB are connected in cascade. The gain of the combination is:
a 8 dB
b 30 dB
c 50 dB
d 400 dB

29-5
In an HF station, the "low pass filter" must be rated to:
a carry the full power output from the station
b filter out higher-frequency modulation components for maximum intelligibility
c filter out high-amplitude sideband components
d emphasise low-speed Morse code output

30-4
In a frequency modulation receiver, this is located between the mixer and the intermediate frequency amplifier:
a the limiter
b the frequency discriminator
c a filter
d the radio frequency amplifier

31-9
In a single sideband and CW receiver, this is connected to the output of the audio frequency amplifier:
a the speaker and/or headphones
b the mixer
c the radio frequency amplifier
d the beat frequency oscillator

32-1
The sensitivity of a receiver specifies:
a the bandwidth of the RF preamplifier
b its ability to receive weak signals
c the stability of the oscillator
d its ability to reject strong signals

33-9
The AGC circuit in a receiver usually controls the:
a RF and IF stages
b audio stage
c mixer stage
d power supply

34-7
A double conversion receiver usually has:
a a high-frequency IF stage followed by a much lower frequency IF stage
b only one IF stage
c poor image frequency rejection
d two IF stages and a discriminator

35-2
A multi-conversion superhet receiver is more susceptible to spurious responses than a single-conversion receiver, because of the:
a poorer selectivity in the IF caused by the multitude of frequency changes
b greater sensitivity introducing higher levels of RF to the receiver
c additional oscillators and mixing frequencies involved in the design
d AGC being forced to work harder causing the stages concerned to overload

36-4
Very low noise figures for a high frequency receiver are relatively unimportant because:
a the received signal creates high noise levels
b the use of SSB and CW on the HF bands overcomes the noise, regardless of the front end
c external HF noise, man-made and natural, are higher than the internal noise generated by the receiver
d the succeeding stages, when used on HF, are very noisy

37-1
In a frequency modulation transmitter, the microphone is connected to the:
a speech amplifier
b modulator
c power amplifier
d oscillator

38-2
In a single sideband transceiver, the device common to both transmit and receive that sets most of the performance characteristics is the:
a mixer
b variable frequency oscillator (VFO)
c linear amplifier
d sideband filter

39-1
The signal from a CW transmitter consists of:
a an RF waveform which is keyed on and off to form Morse characters
b a continuous unmodulated RF waveform
c a continuous RF waveform modulated with an 800 Hz Morse signal
d a continuous RF waveform which changes frequency in synchronism with an applied Morse signal

40-1
The third harmonic of 7 MHz is:
a 10 MHz
b 21 MHz
c 14 MHz
d 28 MHz

41-0
Harmonics are to be avoided because they:
a cause damage to amateur equipment
b make your signal unreadable at other stations on that band
c cause possible interference to other users of that band
d cause possible interference to services using other bands

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

44-5
The accepted way to announce that you are listening to a VHF repeater is:
a "hello 7225, this is ZL2ZZZ listening"
b "ZL2ZZZ listening on 7225"
c "calling 7225, 7225, 7225 from ZL2ZZZ"
d "7225 from ZL2ZZZ"

45-2
"Break-in keying" means:
a unauthorised entry has resulted in station equipment disappearing
b temporary emergency operating
c key-down changes the station to transmit, key-up to receive
d the other station's keying is erratic

46-0
A noise blanker on a receiver is most effective to reduce:
a 50 Hz power supply hum
b noise originating from the mixer stage of the receiver
c ignition noise
d noise originating from the RF stage of the receiver

47-0
The signal "QRM?" means:
a your signals are fading
b are you troubled by static?
c is my transmission being interfered with?
d your transmission is being interfered with

48-6
An HF coaxial feedline is constructed from:
a a single conductor
b two parallel conductors separated by spacers
c braid and insulation around a central conductor
d braid and insulation twisted together

49-4
A switching system to use a single antenna for a separate transmitter and receiver should also:
a disconnect the antenna tuner
b ground the antenna on receive
c disable the unit not being used
d switch between power supplies

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

51-8
A dummy antenna:
a attenuates a signal generator to a desirable level
b provides more selectivity when a transmitter is being tuned
c duplicates the characteristics of an antenna without radiating signals
d matches an AF generator to the receiver

52-4
Insulators are used at the end of suspended antenna wires to:
a increase the effective antenna length
b make the antenna look more attractive
c prevent any loss of radio waves by the antenna
d limit the electrical length of the antenna

53-2
An antenna type commonly used on HF is the:
a parabolic dish
b 13-element Yagi
c helical Yagi
d cubical quad

54-2
The highest frequency that will be reflected back to the earth at any given time is known as the:
a UHF
b OWF
c MUF
d LUF

55-5
Propagation on 80 metres during the summer daylight hours is limited to relatively short distances because of:
a the disappearance of the E layer
b high absorption in the D layer
c poor refraction by the F layer
d pollution in the T layer

56-4
The type of atmospheric layers which will best return signals to earth are:
a oxidised layers
b heavy cloud layers
c sun spot layers
d ionised layers

57-7
When living in a densely-populated area, it is wise to:
a use the minimum transmitter output power necessary
b always use maximum transmitter output power
c only transmit during popular television programme times
d point the beam at the maximum number of television antennas

58-7
A band-stop filter will:
a stop frequencies each side of a band
b pass frequencies each side of a band
c only allow one spot frequency through
d pass frequencies below 100 MHz

59-3
A high-pass RF filter would normally be fitted:
a at the antenna terminals of a TV receiver
b between transmitter output and feedline
c at the Morse key or keying relay in a transmitter
d between microphone and speech amplifier

60-3
The following are three digital communication modes:
a DSBSC, PACTOR, NBFM
b AMTOR, PACTOR, PSK31
c AGC, FSK, Clover
d PSK31, AFC, PSSN