

Note:

1. All questions are of Multiple Choice type.
2. Maximum marks 100.
3. Restricted grade candidates have to answer the first 25 questions (each question carries Two marks) from each section and the time allotted for it is One hour.
4. General grade candidates have to answer all the 50 questions (each question carries One mark) from each section and the time allotted for it is Two hours.

SECTION-A

(Radio Theory and Practice)

1. The e. m. f of a cell depends up on []
a) nature of electrodes and electrolyte
b) size of electrodes
c) spacing between the electrodes
d) none of the above
2. Transistor in CB – mode characteristics are very close to []
a) Gas diode b) Ideal voltage source
c) Ideal current source d) Crystal diode e) None
3. An inductor and a capacitor are connected in parallel. At the resonant frequency the resulting impedance is : []
a) Maximum b) minimum c) totally reactive d) totally inductive
e) None
4. In FM the carrier deviation is determined by []
a) modulating voltage b) modulating frequency c) both a & b
d) None e) None
5. The frequency 146 MHz can be transmitted by []
a) Tropospheric propagation b) Ionospheric propagation
c) Ground wave propagation d) Space wave propagation
e) None
6. An antenna is synonymous to a []
a) generator b) transformer
c) regulator d) reflector e) None
7. During heterodyne process in a receiver the modulation of the signal []
a) remains un affected b) increases c) decreases
d) totally eliminated e) none
8. Tuned voltage Amplifiers are not used []
a) in public address system
b) radio receivers
c) where a band of frequencies is to be selected and amplified
d) in television receivers e) none

9. Which of the following contributes to harmonic distortion in amplifiers []
a) positive feed back
b) presence of noise
c) defective active device d) non linearity in active device
e) None of the above
10. The attenuator in a signal generator is used to []
a) provide a external shunt across the output terminals
b) vary the output impedance of the oscillator
c) Increase the frequency of the output voltage
d) vary the output voltage amplitude in steps e) none
11. An inductor opposes []
a) an increase in applied voltage
b) an increase in current flow
c) decrease in current flow
d) both b & c e) none
12. High Frequency long-distance propagation is most dependent on: []
a) Ionospheric reflection b) tropospheric reflection
c) Ground reflection d) inverted reflection e) None
13. In a full wave rectifier the current in each of the diode flows for []
a) the complete cycle of the input signal
b) half cycle of the input signal
c) less than half cycle of the input signal
d) zero time e) none
14. The basic reason for low efficiency of a direct coupled class- A amplifier is []
a) its large load resistor
b) centered location of its Q point
c) its high dc supply voltage
d) its low ac o/p power e) none
15. An RF transmission line should be matched at the transmitter end to: []
a) Prevent frequency drift
b) Overcome fading of the transmitted signal
c) Ensure that the radiated signal has the intended polarization
d) Transfer maximum power to the antenna
e) None
16. The image frequency of a signal 1500 khz in a superheterodyne receiver is []
a) 2410KHz b) 2950KHz c) 3500KHz d) 4405KHz e) none

SEC-B

5. The message " PAN PAN VU2HYD DE VU2MON" is of type []
a) Urgency signal b) Distress signal
c) Safety signal d) None of the above
6. The frequency of bandwidth of an emission "100HA1A" is []
a) 100 KHz b) 0.1 KHz
c) 10 KHz d) 1 KHz
e) None
7. If you hear distress traffic and are unable to render assistance, you should []
a) Maintain watch until you are certain that assistance is forthcoming
b) Enter the details in the log book and take no further action
c) Take no action
d) Tell all other stations to cease transmitting
e) None
8. An emission that represents a signal which contains a single channel with analog signal uses Amplitude Modulated telegraphy for aural reception without the use of modulating sub-carrier is []
a) A1A b) A2A
c) H1A d) R1A
e) None
9. The phonetic used for the digit '7' is []
a) Sekteseven b) Soxiseven
c) Seven d) Setteseven
e) None
10. Emissions shall be designated according to their []
a) Power output and radiating direction
b) Necessary bandwidth and Classification
c) Necessary bandwidth and Power output
d) Power output and Classification
e) None
11. The radiation in and reception from unnecessary directions can be Minimized by using []
a) appropriate class of emission
b) better selectivity
c) directional antennas
d) better Location for Transmitting and Receiving stations
e) None

12. Authority to make "Radio communication Regulations" is derived from []

- a) The Radio communication Act
- b) The General Radio Regulations
- c) The Standards for the Operation of Radio Stations in the Amateur Radio Service
- d) The ITU Radio Regulations
- e) None

13. Which of the following statements is NOT correct? []

- a) No person shall decode an encrypted subscription programming signal without permission of the lawful distributor
- b) No person shall, without lawful excuse, interfere with or obstruct any radio communication
- c) A person may decode an encrypted subscription programming signal, and retransmit it to the public
- d) No person shall send, transmit, or cause to be transmitted, any false or fraudulent distress signal
- e) None

14. The call sign of an amateur station must be sent []

- a) every minute
- b) every 15 minutes
- c) at the beginning and end of each exchange of communications, and at least every 30 minutes, while in communications
- d) once after initial contact
- e) None

15. The letters those are required to be sent in the time of Distress in Voice transmission are []

- a) SOS b) MAY DAY c) PAN PAN d) SECURTIE
- e) None

16. To make your call sign better understood when using voice transmissions, what should you do []

- a) Use any words which start with the same letters as your call sign for each letter of your call
- b) Talk louder
- c) Turn up your microphone gain
- d) Use Standard International Phonetics for each letter of your call sign
- e) None