Results for sample general2015 test paper

Your answers are marked like this:

✔ **A. You got this question right, this is your correct answer.**

x *A. You got this question wrong, this is your incorrect answer.*

✔ *A. You got this question wrong, this is the correct answer.*

✔ **A. You didnt answer this question but this would be the correct answer.**

Subelement G0

1: G0A02
Which of the following properties is important in estimating whether an RF signal exceeds the maximum permissible exposure (MPE)?
A. Its duty cycle
B. Its frequency
C. Its power density
✔ **D. All of these choices are correct**

2: G0B04
Which of the following is a primary reason for not placing a gasoline-fueled generator inside an occupied area?
✔ **A. Danger of carbon monoxide poisoning**
B. Danger of engine over torque
C. Lack of oxygen for adequate combustion
D. Lack of nitrogen for adequate combustion

Subelement G1

3: G1A12
Which of the following applies when the FCC rules designate the Amateur Service as a secondary user on a band?
A. Amateur stations must record the call sign of the primary service station before operating on a frequency assigned to that station
B. Amateur stations are allowed to use the band only during emergencies
✔ **C. Amateur stations are allowed to use the band only if they do not cause harmful interference to primary users**

D. Amateur stations may only operate during specific hours of the day, while primary users are permitted 24 hour use of the band

4: G1B10

What is the power limit for beacon stations?

A. 10 watts PEP output
B. 20 watts PEP output
✔ **C. 100 watts PEP output**
D. 200 watts PEP output

5: G1C11

What is the maximum symbol rate permitted for RTTY or data emission transmissions on the 2-meter band?

A. 56 kilobaud
✔ **B. 19.6 kilobaud**
C. 1200 baud
D. 300 baud

6: G1D05

Which of the following must a person have before they can be an administering VE for a Technician Class license examination?

A. Notification to the FCC that you want to give an examination
B. Receipt of a CSCE for General Class
C. Possession of a properly obtained telegraphy license
✔ **D. An FCC General Class or higher license and VEC accreditation**

7: G1E04

Which of the following conditions require a licensed Amateur Radio operator to take specific steps to avoid harmful interference to other users or facilities?

A. When operating within one mile of an FCC Monitoring Station
B. When using a band where the Amateur Service is secondary
C. When a station is transmitting spread spectrum emissions
✔ **D. All of these choices are correct**

Subelement G2

8: G2A04

Which mode is most commonly used for voice communications on the 17-meter and 12-meter bands?

✔ **A. Upper sideband**
B. Lower sideband
C. Vestigial sideband
D. Double sideband

9: G2B10

When may the FCC restrict normal frequency operations of amateur stations

participating in RACES?

A. When they declare a temporary state of communication emergency
B. When they seize your equipment for use in disaster communications
C. Only when all amateur stations are instructed to stop transmitting
✔ **D. When the Presidentâ€™s War Emergency Powers have been invoked**

10: G2C08

What prosign is sent to indicate the end of a formal message when using CW?

A. SK
B. BK
✔ **C. AR**
D. KN

11: G2D11

Which HF antenna would be the best to use for minimizing interference?

A. A quarter-wave vertical antenna
B. An isotropic antenna
✔ **C. A directional antenna**
D. An omnidirectional antenna

12: G2E04

What segment of the 20-meter band is most often used for digital transmissions?

A. 14.000 - 14.050 MHz
✔ **B. 14.070 - 14.100 MHz**
C. 14.150 - 14.225 MHz
D. 14.275 - 14.350 MHz

Subelement G3

13: G3A05

What is the solar flux index?

A. A measure of the highest frequency that is useful for ionospheric propagation between two points on the Earth
B. A count of sunspots which is adjusted for solar emissions
C. Another name for the American sunspot number
✔ **D. A measure of solar radiation at 10.7 centimeters wavelength**

14: G3B07

What does LUF stand for?

✔ **A. The Lowest Usable Frequency for communications between two points**
B. The Longest Universal Function for communications between two points
C. The Lowest Usable Frequency during a 24 hour period
D. The Longest Universal Function during a 24 hour period

15: G3C07

What makes HF scatter signals often sound distorted?

A. The ionospheric layer involved is unstable
B. Ground waves are absorbing much of the signal
C. The E-region is not present
✔ **D. Energy is scattered into the skip zone through several different radio wave paths**

Subelement G4

16: G4A05

What is a reason to use Automatic Level Control (ALC) with an RF power amplifier?

A. To balance the transmitter audio frequency response
B. To reduce harmonic radiation
✔ **C. To reduce distortion due to excessive drive**
D. To increase overall efficiency

17: G4B02

Which of the following is an advantage of an oscilloscope versus a digital voltmeter?

A. An oscilloscope uses less power
B. Complex impedances can be easily measured
C. Input impedance is much lower
✔ **D. Complex waveforms can be measured**

18: G4C05

What might be the problem if you receive an RF burn when touching your equipment while transmitting on an HF band, assuming the equipment is connected to a ground rod?

xA. Flat braid rather than round wire has been used for the ground wire
B. Insulated wire has been used for the ground wire
C. The ground rod is resonant
✔ **D. The ground wire has high impedance on that frequency**

19: G4D09

What frequency range is occupied by a 3 kHz USB signal with the displayed carrier frequency set to 14.347 MHz?

A. 14.347 to 14.647 MHz
✔ **B. 14.347 to 14.350 MHz**
C. 14.344 to 14.347 MHz
D. 14.3455 to 14.3485 MHz

20: G4E02

What is the purpose of a corona ball on a HF mobile antenna?

A. To narrow the operating bandwidth of the antenna
B. To increase the "Q" of the antenna
C. To reduce the chance of damage if the antenna should strike an object
✔ **D. To reduce high voltage discharge from the tip of the antenna**

Subelement G5

21: G5A11
Which of the following describes one method of impedance matching between two AC circuits?

✔ **A. Insert an LC network between the two circuits**
B. Reduce the power output of the first circuit
C. Increase the power output of the first circuit
D. Insert a circulator between the two circuits

22: G5B09
What is the RMS voltage of a sine wave with a value of 17 volts peak?

A. 8.5 volts
✔ **B. 12 volts**
C. 24 volts
D. 34 volts

23: G5C07
What is the turns ratio of a transformer used to match an audio amplifier having 600 ohm output impedance to a speaker having 4 ohm impedance?

✔ **A. 12.2 to 1**
B. 24.4 to 1
C. 150 to 1
D. 300 to 1

Subelement G6

24: G6A12
What is the primary purpose of a screen grid in a vacuum tube?

✔ **A. To reduce grid-to-plate capacitance**
B. To increase efficiency
C. To increase the control grid resistance
D. To decrease plate resistance

25: G6B14
Which of these connector types is commonly used for audio signals in Amateur Radio stations?

A. PL-259
B. BNC
✔ **C. RCA Phono**
D. Type N

Subelement G7

26: G7A07

What is the output waveform of an unfiltered full-wave rectifier connected to a resistive load?

✔ **A. A series of DC pulses at twice the frequency of the AC input**

B. A series of DC pulses at the same frequency as the AC input

C. A sine wave at half the frequency of the AC input

D. A steady DC voltage

27: G7B08

How is the efficiency of an RF power amplifier determined?

A. Divide the DC input power by the DC output power

✔ **B. Divide the RF output power by the DC input power**

C. Multiply the RF input power by the reciprocal of the RF output power

D. Add the RF input power to the DC output power

28: G7C02

Which circuit is used to combine signals from the carrier oscillator and speech amplifier then send the result to the filter in some single sideband phone transmitters?

A. Discriminator

B. Detector

C. IF amplifier

✔ **D. Balanced modulator**

Subelement G8

29: G8A04

What emission is produced by a reactance modulator connected to a transmitter RF amplifier stage?

A. Multiplex modulation

✔ **B. Phase modulation**

C. Amplitude modulation

D. Pulse modulation

30: G8B01

What receiver stage combines a 14.250 MHz input signal with a 13.795 MHz oscillator signal to produce a 455 kHz intermediate frequency (IF) signal?

✔ **A. Mixer**

B. BFO

C. VFO

D. Discriminator

31: G8C09

What does the number 31 represent in "PSK31"?

✔ **A. The approximate transmitted symbol rate**

B. The version of the PSK protocol

C. The year in which PSK31 was invented

D. The number of characters that can be represented by PSK31

Subelement G9

32: G9A15

What is the effect of transmission line loss on SWR measured at the input to the line?

✔ **A. The higher the transmission line loss, the more the SWR will read artificially low**

B. The higher the transmission line loss, the more the SWR will read artificially high

C. The higher the transmission line loss, the more accurate the SWR measurement will be

D. Transmission line loss does not affect the SWR measurement

33: G9B05

How does antenna height affect the horizontal (azimuthal) radiation pattern of a horizontal dipole HF antenna?

A. If the antenna is too high, the pattern becomes unpredictable

B. Antenna height has no effect on the pattern

✔ **C. If the antenna is less than 1/2 wavelength high, the azimuthal pattern is almost omnidirectional**

D. If the antenna is less than 1/2 wavelength high, radiation off the ends of the wire is eliminated

34: G9C12

Which of the following is an advantage of using a gamma match for impedance matching of a Yagi antenna to 50 ohm coax feed line?

✔ **A. It does not require that the elements be insulated from the boom**

B. It does not require any inductors or capacitors

C. It is useful for matching multiband antennas

D. All of these choices are correct

35: G9D04

What is the primary purpose of antenna traps?

✔ **A. To permit multiband operation**

B. To notch spurious frequencies

C. To provide balanced feed point impedance

D. To prevent out of band operation

Results:

You scored 34 correct answers and 1 incorrect answers from a total of 35.

You would have passed the exam! Congratulations!

e)

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