Results for sample general 2015 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: G0A07

What effect does transmitter duty cycle have when evaluating RF exposure?

- ✓ A. A lower transmitter duty cycle permits greater short-term exposure levels
 - B. A higher transmitter duty cycle permits greater short-term exposure levels
- xC. Low duty cycle transmitters are exempt from RF exposure evaluation requirements
 - D. High duty cycle transmitters are exempt from RF exposure requirements

2: G0B05

Which of the following conditions will cause a Ground Fault Circuit Interrupter (GFCI) to disconnect the 120 or 240 Volt AC line power to a device?

- A. Current flowing from one or more of the voltage-carrying wires to the neutral wire
- ✓ B. Current flowing from one or more of the voltage-carrying wires directly to ground
 - C. Overvoltage on the voltage-carrying wires
 - D. All of these choices are correct

Subelement G1

3: G1A03

On which of the following bands is image transmission prohibited?

- A. 160 meters
- ✓ B. 30 meters
 - C. 20 meters
 - D. 12 meters

4: G1B04

Which of the following must be true before amateur stations may provide communications to broadcasters for dissemination to the public?

- ✓ A. The communications must directly relate to the immediate safety of human life or protection of property and there must be no other means of communication reasonably available before or at the time of the event
- B. The communications must be approved by a local emergency preparedness official and conducted on officially designated frequencies
 - C. The FCC must have declared a state of emergency
 - D. All of these choices are correct

5: G1C03

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What is the maximum bandwidth permitted by FCC rules for Amateur Radio stations transmitting on USB frequencies in the 60-meter band?

A. 2.8 kHz

- B. 5.6 kHz
- C. 1.8 kHz
- D. 3 kHz

6: G1D10

What is the minimum age that one must be to qualify as an accredited Volunteer Examiner?

- A. 12 years
- **▶** B. 18 years
 - C. 21 years
 - D. There is no age limit

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 President's War Emergency Powers have been invoked

10: G2C04

What does the Q signal "QRL?" mean?

- A. "Will you keep the frequency clear?"
- B. "Are you operating full break-in" or "Can you operate full break-in?"
- C. "Are you listening only for a specific station?"
- ✓ D. "Are you busy?", or "Is this frequency in use?"

11: G2D02

Which of the following are objectives of the Amateur Auxiliary?

- A. To conduct efficient and orderly amateur licensing examinations
- **▶** B. To encourage self-regulation and compliance with the rules by radio amateur operators
 - C. To coordinate repeaters for efficient and orderly spectrum usage
- xD. To provide emergency and public safety communications

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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: G3A04

Which of the following are least reliable for long distance communications during periods of low solar activity?

- A. 80 meters and 160 meters
- B. 60 meters and 40 meters

xC. 30 meters and 20 meters

✓ D. 15 meters, 12 meters and 10 meters

14: G3B08

What does MUF stand for?

- A. The Minimum Usable Frequency for communications between two points
- **▼ B. The Maximum Usable Frequency for communications between two points**
 - C. The Minimum Usable Frequency during a 24 hour period
 - D. The Maximum Usable Frequency during a 24 hour period

15: G3C12

Which ionospheric layer is the most absorbent of long skip signals during daylight hours on frequencies below 10 MHz?

- A. The F2 layer
- B. The F1 layer
- C. The E layer
- D. The D layer

Subelement G4

16: G4A13

What is one reason to use the attenuator function that is present on many HF transceivers?

✓ A. To reduce signal overload due to strong incoming signals

- B. To reduce the transmitter power when driving a linear amplifier
- C. To reduce power consumption when operating from batteries
- D. To slow down received CW signals for better copy

17: G4B11

Which of the following must be connected to an antenna analyzer when it is being used for SWR measurements?

- A. Receiver
- B. Transmitter
- C. Antenna and feed line
 - D. All of these choices are correct

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?

- A. Flat braid rather than round wire has been used for the ground wire
- B. Insulated wire has been used for the ground wire
- xC. The ground rod is resonant
- D. The ground wire has high impedance on that frequency

19: G4D07

How much must the power output of a transmitter be raised to change the S meter reading on a distant receiver from S8 to S9?

- A. Approximately 1.5 times
- xB. Approximately 2 times
- **∨** C. Approximately 4 times
 - D. Approximately 8 times

20: G4E10

What is the reason that a series diode is connected between a solar panel and a storage battery that is being charged by the panel?

- A. The diode serves to regulate the charging voltage to prevent overcharge
- ✓ B. The diode prevents self-discharge of the battery though the panel during times of low or no illumination
 - C. The diode limits the current flowing from the panel to a safe value
 - D. The diode greatly increases the efficiency during times of high illumination

Subelement G5

21: G5A09

What unit is used to measure reactance?

- A. Farad
- B. Ohm
 - C. Ampere
 - D. Siemens

22: G5B04

How many watts of electrical power are used by a 12 VDC light bulb that draws 0.2 amperes?

- ✓ A. 2.4 watts
 - B. 24 watts
- xC. 6 watts
 - D. 60 watts

23: G5C10

What is the inductance of three 10 millihenry inductors connected in parallel?

- A. 0.30 henrys
- B. 3.3 henrys
- C. 3.3 millihenrys
 - D. 30 millihenrys

Subelement G6

24: G6A08

Why must the cases of some large power transistors be insulated from ground?

- A. To increase the beta of the transistor
- B. To improve the power dissipation capability
- C. To reduce stray capacitance
- D. To avoid shorting the collector or drain voltage to ground

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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: G7A09

Which symbol in figure G7-1 represents a field effect transistor?

- A. Symbol 2
- B. Symbol 5
- C. Symbol 1
 - D. Symbol 4

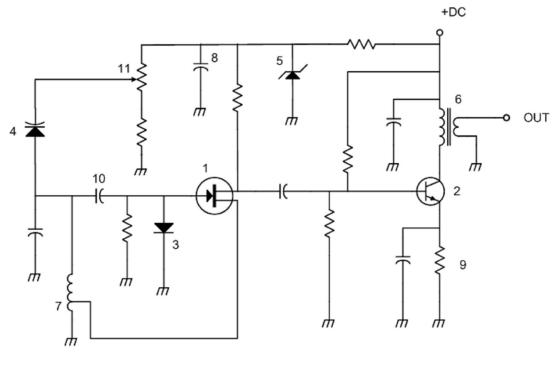


Figure G7-1

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: G7C08

What type of circuit is used in many FM receivers to convert signals coming from the IF amplifier to audio?

A. Product detector

- B. Phase inverter
- C. Mixer
- D. Discriminator

Subelement G8

29: G8A06

What is one advantage of carrier suppression in a single sideband phone transmission versus full carrier amplitude modulation?

- A. Audio fidelity is improved
- B. Greater modulation percentage is obtainable with lower distortion
- C. Available transmitter power can be used more effectively
 - D. Simpler receiving equipment can be used

30: G8B07

What is the frequency deviation for a 12.21 MHz reactance modulated oscillator in a 5 kHz deviation, 146.52 MHz FM phone transmitter?

- A. 101.75 Hz
- ✓ B. 416.7 Hz
 - C. 5 kHz
 - D. 60 kHz

31: G8C05

In the PACTOR protocol, what is meant by an NAK response to a transmitted packet?

- A. The receiver is requesting the packet be retransmitted
 - B. The receiver is reporting the packet was received without error
 - C. The receiver is busy decoding the packet
 - D. The entire file has been received correctly

Subelement G9

32: G9A11

What standing wave ratio will result when connecting a 50 ohm feed line to a non-reactive load having 50 ohm impedance?

- A. 2:1
- ✓ B. 1:1
 - C. 50:50
 - D. 0:0

33: G9B12

What is the approximate length for a 1/4 wave vertical antenna cut for 28.5 MHz?

- A. 8 feet
 - B. 11 feet
 - C. 16 feet
 - D. 21 feet

34: G9C11

What is the purpose of a gamma match used with Yagi antennas?

✓ A. To match the relatively low feed point impedance to 50 ohms

- xB. To match the relatively high feed point impedance to 50 ohms
 - C. To increase the front-to-back ratio
 - D. To increase the main lobe gain

35: G9D09

Which of the following is an application for a Beverage antenna?

- A. Directional transmitting for low HF bands
- **▼** B. Directional receiving for low HF bands
 - C. Portable direction finding at higher HF frequencies
 - D. Portable direction finding at lower HF frequencies

Results:

You scored 28 correct answers and 7 incorrect answers from a total of 35.

You would have passed the exam! Congratulations!

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