# 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: G0A09

What type of instrument can be used to accurately measure an RF field?

- A. A receiver with an S meter
- B. A calibrated field strength meter with a calibrated antenna
  - C. An SWR meter with a peak-reading function
  - D. An oscilloscope with a high-stability crystal marker generator

2: G0B02

What is the minimum wire size that may be safely used for a circuit that draws up to 20 amperes of continuous current?

A. AWG number 20

xB. AWG number 16

✓ C. AWG number 12

D. AWG number 8

# **Subelement G1**

3: G1A10

Which of the following frequencies is available to a control operator holding a General Class license?

A. 28.020 MHz

xB. 28.350 MHz

C. 28.550 MHz

D. All of these choices are correct

4: G1B08

When choosing a transmitting frequency, what should you do to comply with good

### amateur practice?

- A. Insure that the frequency and mode selected are within your license class privileges
- B. Follow generally accepted band plans agreed to by the Amateur Radio community
- C. Monitor the frequency before transmitting
- D. All of these choices are correct

#### 5: G1C10

# What is the maximum symbol rate permitted for RTTY or data emission transmissions on the 10-meter band?

- A. 56 kilobaud
- B. 19.6 kilobaud

#### C. 1200 baud

D. 300 baud

#### 6: G1D11

# If a person has an expired FCC issued amateur radio license of General Class or higher, what is required before they can receive a new license?

- A. They must have a letter from the FCC showing they once held an amateur or commercial license
- B. There are no requirements other than being able to show a copy of the expired license
- C. The applicant must be able to produce a copy of a page from a call book published in the USA showing his or her name and address
- D. The applicant must pass the current element 2 exam

#### 7: G1E06

# Which of the following applies in the event of interference between a coordinated repeater and an uncoordinated repeater?

✓ A. The licensee of the uncoordinated repeater has primary responsibility to resolve the interference

xB. The licensee of the coordinated repeater has primary responsibility to resolve the interference

- C. Both repeater licensees share equal responsibility to resolve the interference
- D. The frequency coordinator bears primary responsibility to resolve the interference

## **Subelement G2**

#### 8: G2A01

# Which sideband is most commonly used for voice communications on frequencies of 14 MHz or higher?

### A. Upper sideband

- B. Lower sideband
- C. Vestigial sideband
- D. Double sideband

#### 9: G2B05

What is the customary minimum frequency separation between SSB signals under

#### normal conditions?

- A. Between 150 and 500 Hz
- B. Approximately 3 kHz
  - C. Approximately 6 kHz
  - D. Approximately 10 kHz

10: G2C02

### What should you do if a CW station sends "QRS"?

#### A. Send slower

- B. Change frequency
- C. Increase your power
- D. Repeat everything twice

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

12: G2E07

# What segment of the 80-meter band is most commonly used for digital transmissions?

#### ✓ A. 3570 – 3600 kHz

- B. 3500 3525 kHz
- C. 3700 3750 kHz
- D. 3775 3825 kHz

## **Subelement G3**

13: G3A14

# How are radio communications usually affected by the charged particles that reach the Earth from solar coronal holes?

- A. HF communications are improved
- B. HF communications are disturbed
  - C. VHF/UHF ducting is improved
  - D. VHF/UHF ducting is disturbed

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: G3C01

### Which ionospheric layer is closest to the surface of the Earth?

### A. The D layer

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

## **Subelement G4**

16: G4A03

### What is normally meant by operating a transceiver in "split" mode?

- A. The radio is operating at half power
- B. The transceiver is operating from an external power source

#### C. The transceiver is set to different transmit and receive frequencies

D. The transmitter is emitting an SSB signal, as opposed to DSB operation

17: G4B09

### Which of the following can be determined with a field strength meter?

A. The radiation resistance of an antenna

### B. The radiation pattern of an antenna

- C. The presence and amount of phase distortion of a transmitter
- D. The presence and amount of amplitude distortion of a transmitter

18: G4C09

## How can a ground loop be avoided?

- A. Connect all ground conductors in series
- B. Connect the AC neutral conductor to the ground wire
- C. Avoid using lock washers and star washers when making ground connections
- D. Connect all ground conductors to a single point

19: G4D08

# What frequency range is occupied by a 3 kHz LSB signal when the displayed carrier frequency is set to 7.178 MHz?

- A. 7.178 to 7.181 MHz
- B. 7.178 to 7.184 MHz

#### C. 7.175 to 7.178 MHz

D. 7.1765 to 7.1795 MHz

20: G4E08

# What is the name of the process by which sunlight is changed directly into electricity?

#### A. Photovoltaic conversion

- B. Photon emission
- C. Photosynthesis
- D. Photon decomposition

## **Subelement G5**

21: G5A09

#### What unit is used to measure reactance?

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

22: G5B03

# How many watts of electrical power are used if 400 VDC is supplied to an 800 ohm load?

- A. 0.5 watts
- ✓ B. 200 watts
  - C. 400 watts
  - D. 3200 watts

23: G5C14

# Which of the following components should be added to an inductor to increase the inductance?

- A. A capacitor in series
- B. A resistor in parallel
- C. An inductor in parallel
- D. An inductor in series

## **Subelement G6**

24: G6A11

# Which of the following solid state devices is most like a vacuum tube in its general operating characteristics?

- A. A bipolar transistor
- B. A field effect transistor
  - C. A tunnel diode
  - D. A varistor

25: G6B18

#### What is a type SMA connector?

- A. A large bayonet connector usable at power levels in excess of 1 KW
- B. A small threaded connector suitable for signals up to several GHz
  - C. A connector designed for serial multiple access signals
  - D. A type of push-on connector intended for high voltage applications

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## **Subelement G7**

26: G7A05

### What portion of the AC cycle is converted to DC by a half-wave rectifier?

A. 90 degrees

## ✓ B. 180 degrees

- C. 270 degrees
- D. 360 degrees

27: G7B03

## Which of the following describes the function of a two input AND gate?

- A. Output is high when either or both inputs are low
- B. Output is high only when both inputs are high
  - C. Output is low when either or both inputs are high
  - D. Output is low only when both inputs are high

28: G7C09

### Which of the following is needed for a Digital Signal Processor IF filter?

- A. An analog to digital converter
- B. A digital to analog converter
- C. A digital processor chip
- D. All of the these choices are correct

## **Subelement G8**

29: G8A08

## Which of the following is an effect of overmodulation?

- A. Insufficient audio
- B. Insufficient bandwidth
- C. Frequency drift
- D. Excessive bandwidth

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: G8C11

# How are the two separate frequencies of a Frequency Shift Keyed (FSK) signal identified?

A. Dot and Dash

- B. On and Off
- C. High and Low
- D. Mark and Space

## **Subelement G9**

32: G9A01

Which of the following factors determine the characteristic impedance of a parallel conductor antenna feed line?

### A. The distance between the centers of the conductors and the radius of the conductors

- B. The distance between the centers of the conductors and the length of the line
- C. The radius of the conductors and the frequency of the signal
- D. The frequency of the signal and the length of the line

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: G9C13

Approximately how long is each side of the driven element of a quad antenna?

### A. 1/4 wavelength

- B. 1/2 wavelength
- C. 3/4 wavelength
- D. 1 wavelength

35: G9D01

#### What does the term NVIS mean as related to antennas?

- A. Nearly Vertical Inductance System
- B. Non-Varying Indicated SWR
- C. Non-Varying Impedance Smoothing
- D. Near Vertical Incidence sky-wave

#### **Results:**

You scored 31 correct answers and 4 incorrect answers from a total of 35.

You would have passed the exam! Congratulations!

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