Semester 2 Final Review 3

ⓘ This is a preview of the draft version of the quiz

Started: May 14 at 9:30am

Quiz Instructions

Round to the hundreths place.

Question 1 — 1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the combined resistance of the 4 and 1 Ohm resistors in parallel? Ohms

Question 2 — 1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the total equivalent resistance of the circuit? Ohms

Question 3 — 1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the current through the battery? Amps

Question 4

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the current through the 2 Ohm resistor? Amps

Question 5

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the current through the 4 Ohm resistor? Amps

Question 6

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the current through the 1 Ohm resistor? Amps

Question 7

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the voltage drop across the 4 Ohm resistor? Volts

Question 8

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the voltage drop across the 1 Ohm resistor? Volts

Question 9

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the voltage drop across the 2 Ohm resistor? Volts

Question 10

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the voltage drop across the battery? Volts

Question 11

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the power output of the 4 Ohm resistor? Watts

Question 12

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the power output of the 1 Ohm resistor? Watts

Question 13

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the power output of the 2 Ohm resistor? Watts

Question 14

1 pts

A 14 Volt battery is connected to a 2 Ohm resistor in series then two resistors, 4 Ohm and 1 Ohm, in parallel. What is the power output of the battery? Watts

Question 15

1 pts

An electron and a proton are two meters apart and are traveling toward one another. When the electron and proton are 1 meter apart, their speeds will have _____.

- remained the same
- increased

- decreased

Question 16

1 pts

When a toy car goes through a loop de loop, what types of energy does it have at the top of the loop? Choose all that apply. Assume no friction.

- [ ] gravitational potential
- [ ] elastic potential
- [ ] kinetic
- [ ] momentum
- [ ] inertia

Question 17

1 pts

The speed of light is 300,000,0000 m/s. What is the frequency of a light wave with wavelength 100,000,000 meters. Hz

Velocity = Wavelength x Frequency

Question 18

1 pts

A ball is whirling around with uniform circular motion in a horizontal circle on a string. The tension in the string will _____ if the radius increases. Assume tangential velocity and mass remain the same.

Tension = Centripetal Force = (mass x velocity^2)/radius

- remain the same
- decrease
- increase

Question 19

1 pts

A mass of 100 kg traveling 3 m/s collides head on and sticks to a mass of 30 kg traveling at -10 m/s. What is the final velocity of the combined mass?

Question 20

1 pts

A roller coaster of mass 500 kg begins at rest at the top of a 20 meter high hill and just begins to roll. Assuming no friction, what will be the velocity of the roller coaster at the bottom of the hill? g = 10 m/s/s

m/s

Question 21

1 pts

By what factor does the electrostatic force decrease when the distance between two charges is doubled?

- 1/4
- 1/2
- 1/5

- 1/9
- 1/3

Question 22

1 pts

By what factor does the electrostatic force decrease when the distance between two charges is tripled?

- 1/5
- 1/4
- 1/9
- 1/3
- 1/2

Question 23

1 pts

By what factor does the electrostatic force increase when the distance between two charges is halved?

- 9
- 4
- 3
- 2

Question 24

1 pts

A mass of 4 kg is acted upon by a net force of 15 Newtons for 3 seconds. What is the change in momentum of the mass? Kg*m/s

Question 25

1 pts

A mass of 4 kg is acted upon by a net force of 15 Newtons for 3 seconds. What is the total impulse on the mass? Ns

Not saved

Submit Quiz