Started on	Monday, 14 August 2017, 5:14 PM
State	Finished
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Grade	**10.00** out of 10.00 (**100**%)

Question 1

Correct

Mark 1.00 out of 1.00

When a wave passes from one medium to another, what can change?

Select one:

- a. The wave's speed and frequency
- b. The wave's speed, wavelength and frequency
- c. The wave's frequency and wavelength
- d. The wave's speed and wavelength ✓

The correct answer is: The wave's speed and wavelength

Question 2

Correct

Mark 1.00 out of 1.00

The *Curie Temperature* is the temperature at which

Select one:

- a. None of the above
- b. The properties which make a material paramagnetic break down
- c. The hysteresis curve passes its inflection point
- d. The properties which make a material ferromagnetic break down ✓

Your answer is correct.

The correct answer is: The properties which make a material ferromagnetic break down

Question 3

Correct

Mark 1.00 out of 1.00

A typical fridge magnet is an example of what type of magnetism?

Select one:

- a. ferromagnetism ✓
- b. paramagnetism
- c. diamagnetism
- d. rheomagnetism

Your answer is correct.

The correct answer is: ferromagnetism

Question 4

Correct

Mark 1.00 out of 1.00

Partially linearly polarized light is incident upon a sheet polarizer that is rotated and the transmitted intensity is noted at each angle. What happens to the intensity of the transmitted light?

Select one:

- a. The intensity varies with angle but is not zero for any orientation ✓
- b. The intensity stays constant
- c. The intensity varies with angle and reaches zero for specific angles
- d. The intensity is zero

The correct answer is: The intensity varies with angle but is not zero for any orientation

Question 5

Correct

Mark 1.00 out of 1.00

The speed of an electromagnetic wave in vacuum depends on ...

Select one:

- a. The permittivity of free space and the permeability of free space. ✓ Correct.
- b. The amplitude of the electric and magnetic field
- c. The angle between the electric and magnetic fields
- d. The frequency and wavelength

The correct answer is: The permittivity of free space and the permeability of free space.

Question 6

Correct

Mark 1.00 out of 1.00

According to Maxwell's Equations what do we know about variations in electric or magnetic fields?

Select one:

- a. Variations cancel each other as a result of conservation of energy
- b. Variations accumulate on top of each other leading to increased speed of the variations
- c. Variations become self-sustaining an propagate through space as an electromagnetic wave ✓
- d. Variations produce separate electric and magnetic fields which result in individual electric and magnetic waves

The correct answer is: Variations become self-sustaining an propagate through space as an electromagnetic wave

Question 7

Correct

Mark 1.00 out of 1.00

Unpolarized light is incident on two lenses polarized perpendicular to each other. What happens to the light?

Select one:

- a. Light polarized in one plane is transmitted.
- b. Randomly polarized light is transmitted but with reduced intensity.
- c. No light is transmitted. ✓ Correct!
- d. Light polarized in two planes is transmitted.

The correct answer is: No light is transmitted.

Question 8

Correct

Mark 1.00 out of 1.00

A beam of light travels from air into glass at an incident angle of 30 degrees to the normal. The angle of refraction inside the glass is ...

Select one:

- 1. 30 degrees to the normal
- 2. greater than 30 degrees to the normal
- 3. less than 30 degrees to the normal ✓ Correct! Good use of Snell's law.

The correct answer is: less than 30 degrees to the normal

Question 9

Correct

Mark 1.00 out of 1.00

If the wavelength of an electromagnetic wave is about the length of a soccer field, what type of radiation is it?

Select one:

- a. UV
- b. Infrared
- c. Microwave
- d. X-ray
- e. Visible light
- f. Radio wave ✓

The correct answer is: Radio wave

Question 10

Correct

Mark 1.00 out of 1.00

If a ray is transmitted from a slower medium into a faster medium at the critical angle, which of the following statements are true? (Check all that apply)

Select one or more:

- a. The angle of refraction is 90 degrees to the normal ✓ Correct!
- b. There is no transmission ✓ Correct!
- c. There is total internal reflection
- d. The angle of reflection is 90 degrees to the normal

The correct answer is: The angle of refraction is 90 degrees to the normal, There is no transmission