Name: _____ Student no. _____ Class: MEP 3/6

Part 1: Multiple choices

Objective SC 2.3 3/10: Explain the formation of wave and describe the wave components.

Items 1-5.

Instruction: Fill in the blanks. Select your answer from the box.

a. wavelength	b. amplitude	c. crest	d. trough	e. frequency

The highest point on a wave is the 1._____, while the lowest point is the 2._____.

The 3._____ of a wave is a measure of the amount of the energy it carries.

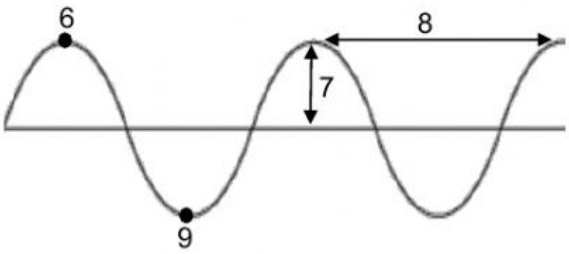
The distance from one crest to the next crest is the 4._____.

The 5._____ is a measure of the number of waves that pass in a given amount of time.

Items 6-9.

Instruction: The diagram below shows a wave. Identify the parts of the wave. Select your answer from the box.

a. frequency	b. trough	c. wavelength	d. amplitude	e. crest



6. _____

7. _____

8. _____

9. _____

Items 10-13.

Instruction: Reach each question carefully and select the best answer.

10. A disturbance that travels through a medium from one location to another location without transporting matter is called …

a. wave
b. energy
c. force
d. motion

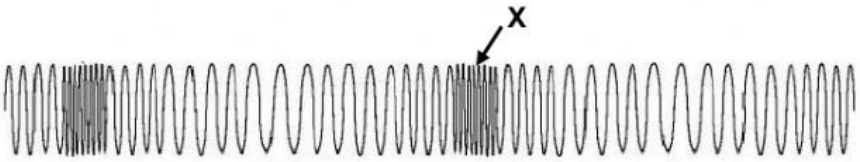
11. What type of wave has a vibration perpendicular to the direction of travel of the wave?

a. longitudinal wave
b. transverse wave
c. sound wave
d. all types of wave

12. What type of wave vibrate parallel to the direction of the travel of the wave?

a. transverse wave
c. longitudinal wave
b. water wave
d. none of the above

13. From the diagram **"X"** is the region where rings are closer together. This region is called…



a. length
c. magnitude
b. rarefaction
d. compression

14. Mechanical wave is a type of wave that is not able to travel through a vacuum. Which of the following are good example of mechanical wave?

I. Water
II. Air
III. Light wave
IV. Radio wave

a. I and II only
c. III and IV only
b. II and III only
d. All of the above

Instruction: Identify the type of electromagnetic wave used in the following items.

Items 15-17.

a. radio waves	b. ultraviolet rays	c. microwaves	d. visible light

15. This type of wave can cause skin cancer or promote vitamin D production. _____

16. This wavelengths and frequencies can be seen by human eye. _____

17. This type of wave is used for detecting fake and forged currency. _____

Items 18-20

a. x-rays	b. gamma rays	c. infrared rays	d. light rays

18. This type of wave is used in remote controls for TVs and VCRs. _____

19. This is the most dangerous type of wave. _____

20. This wave can goes through most matter except bone and lead. _____

Objective SC2.3 3/14: Explain the light movement showing the image formation from the mirror.

Instruction: Read each question carefully and select the best answer.

Items 21-23.

21. Which of the following statements is true about luminous and non-luminous objects?

I. Luminous objects emit lights.

II. Non-luminous objects cannot emit light.

III. We can see luminous objects because their light travels directly to our eyes.

IV. We can see non-luminous objects because they reflects light.

a. I and II only
b. II and III only
c. III and IV only
d. All of the above

22. Which of the following is a luminous object?

a. planet
b. mirror
c. lamp
d. wall

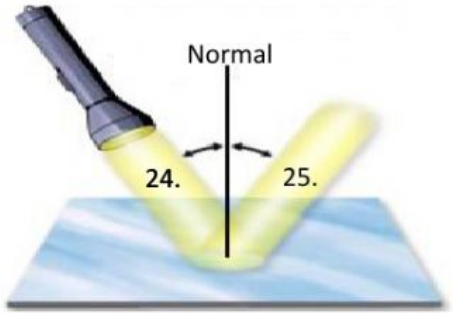
23. When light bounces off the surface of an object, we call it …

a. reflection
b. refraction
c. movement
d. transfer

Item 24-26.

Instruction: The diagram below shows an angle of reflection. Identify the parts mark as items no. 24-25. Select your answer from the box.

a. Angle of incidence	b. Angle of reflection	c. Incident ray	d. Reflected ray



24._____

25. _____

26. From the diagram above, "Normal" is best describe as…

a. the light that bounces off the surface
b. a line drawn at 90 degree to the surface
c. is the light that strike the surface
d. the angle between the incident ray and the normal

27. A concave mirror gives an inverted image. The word inverted means…

a. upright
b. upside down
c. the same
d. exact

28. The image in a convex mirror is always diminishing. The word diminishing means …

a. larger
b. constant
c. increasing
d. decreasing

Par 2: Writing

Objective SC2.3 3/14: Explain the light movement showing the image formation from the mirror.

Instruction: Write a short answer. (Items 29-31)

How do you used the 3 types of mirror in everyday life?

29. Plane mirror = _____

30. Concave mirror = _____

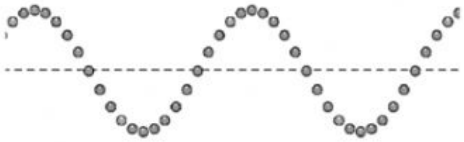
31. Convex mirror = _____

Objective SC 2.3 3/10: Explain the formation of wave and describe the wave components.

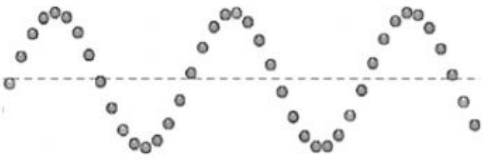
Instruction: Refer to the following waves and write the answer. (Items 32-40)

A. Frequency

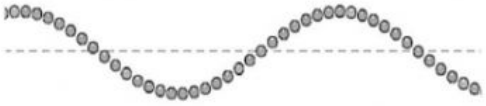
Wave 1



Wave 2



Wave 3



32. How many wavelengths long is Wave 1?

_____

33. How many wavelengths long is Wave 2?

_____

34. How many wavelengths long is Wave 3?

_____

35. Which has the highest frequency?

_____

36. Which has the lowest frequency?

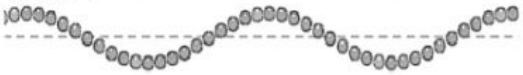
_____

37. Define frequency.

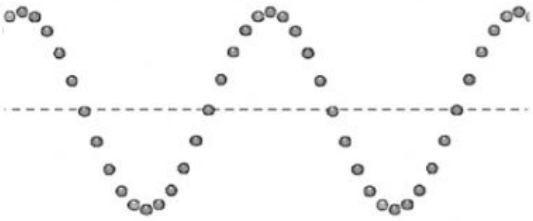
_____

B. Amplitude

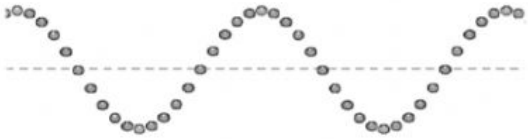
Wave 4



Wave 5



Wave 6



38. Which wave has the highest amplitude?

_____

39. Which wave has the lowest amplitude?

_____

40. Define amplitude.

_____