

## STSSCIS806 Vocational science/ Wave physics I

Unit/Topic	Performance Criteria	Assess Event	Date	Time
<b>Waves, sound and light</b>	<b>1.4, 2.1 &amp; 2.2</b>	<b>Portfolio task 2</b>	8/5/2013	30 min.
Student Name	Teacher	Class	Total Mark	
	Ayman AlOmari	VEDC+	/15	

### Marking Scheme

Question	Max. Mark	Mark	Comment
Q1	1 mark for each (1X5=5)		
Q2	1 for applying in the formula		
	1 for answer with the unit		
Q3	1 mark for each (1X8=8)		
Total	15		

<p style="text-align: center;"><b>Student signature:</b></p> <p>I certify that the work presented is my own. I acknowledge that I have received and understood feedback about this assessment.</p>	<b>Sign</b>	<b>Grade</b>
		/10
Student Comment:		
Teacher comment:		

Q1) Choose the correct answer.

(5 marks)

- 1) What causes sound waves?
  - a. Vibrations
  - b. Heat
  - c. Light
  
- 2) What is the direction of vibrations in relative to the sound propagation?
  - a. Perpendicular
  - b. Opposite
  - c. In the same direction
  
- 3) Where do sound waves travel in?
  - a. Vacuum
  - b. Solids only
  - c. Liquid and gases only
  - d. Solids, liquids, and gases
  
- 4) What wave type are the sound waves?
  - a. Transverse
  - b. Longitudinal
  - c. Both transverse and longitudinal
  
- 5) The frequency of a sound wave is 1000 Hz. What is its period?
  - a. 0.001 s
  - b. 1 s
  - c. 1000s

- 6) A sound wave travels in a speed of 340 m/s, its frequency is 100 Hz.

Find the wave length.

$$v = f\lambda$$

(2 Marks)

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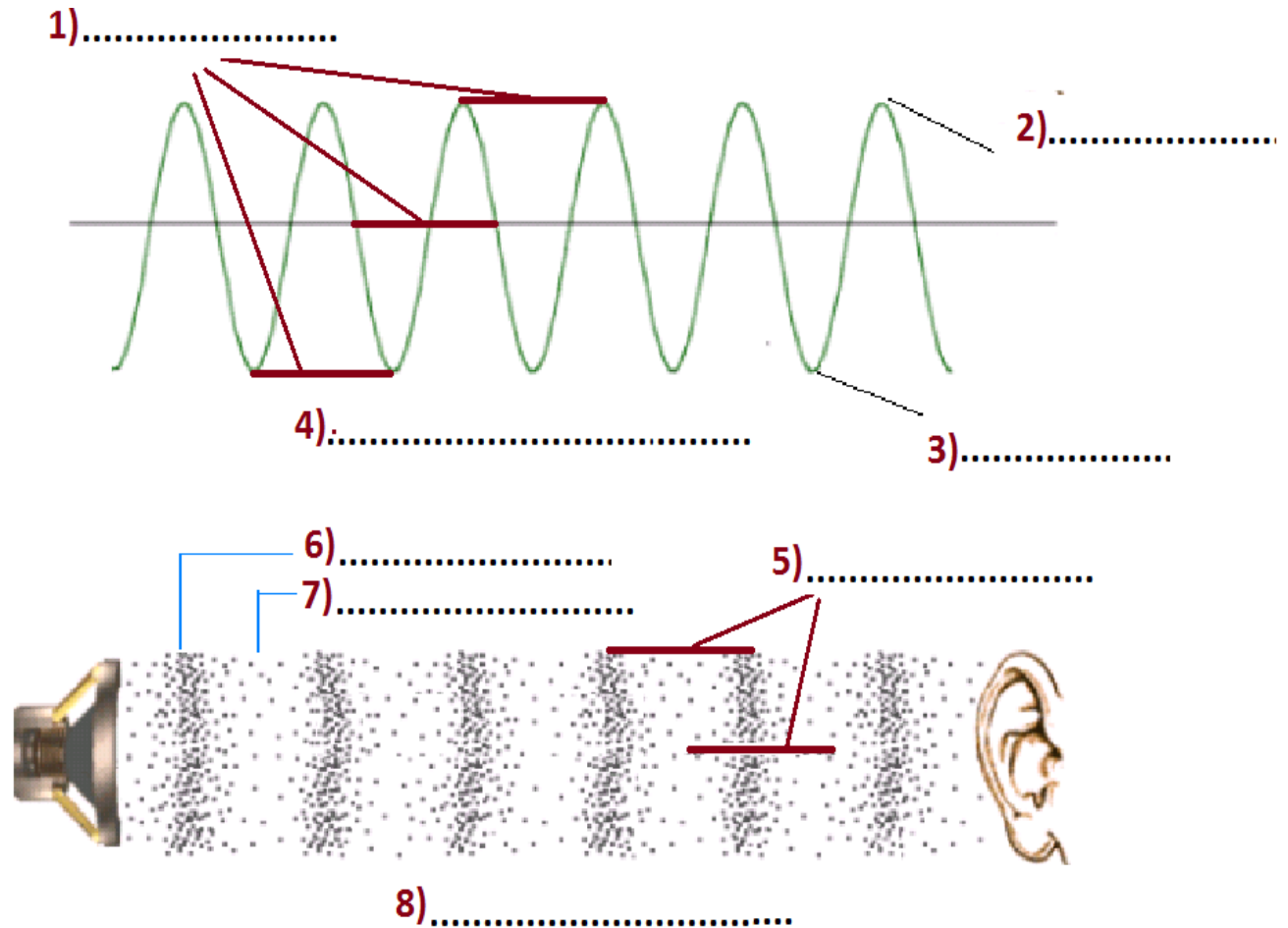
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Q3) On the following figure label the following:-

(8 Marks)

Transvers waves, longitudinal waves, compression, rarefaction, crest, trough, wavelength.



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Q1)

1	2	3	4	5
a	c	d	b	a

Q2) 3 or 2 steps of the following worth 2 mark

$$\lambda = \frac{v}{f} \quad , \quad \lambda = \frac{340}{100} \quad , \quad \lambda = 3.4 \text{ m}$$

Q3) one mark for each

