



## STSSCIS806 Vocational science/ Wave physics I

Unit/Topic	Performance Criteria	Assess Event	Date	Time
Waves, sound and light	1.1 to 1.4	Portfolio task 1	1/5/2013	25 min.
Student Name	Teacher	Class	Total Mark	
	Ayman AlOmari	VEDC+	/10	

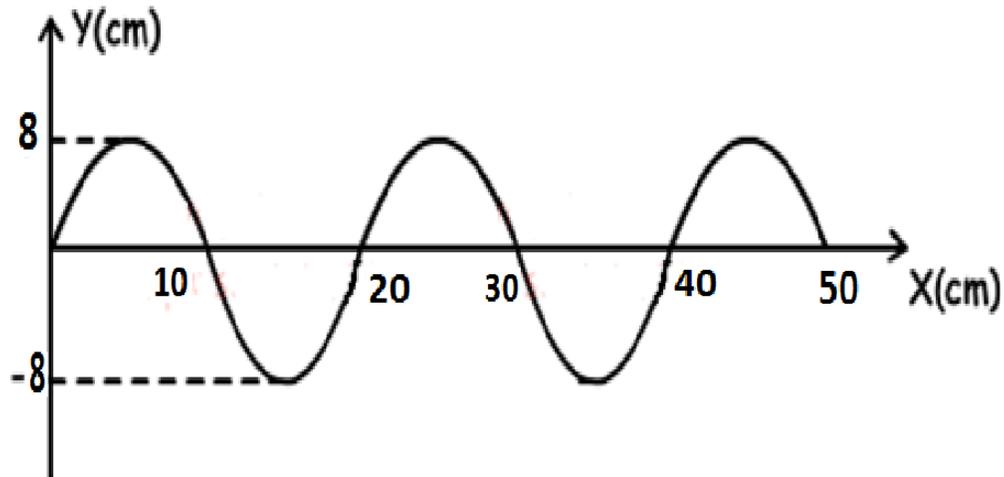
### Marking Scheme

Question ( 1)	Max. Mark	Mark	Comment
a)	1		
b)	1		
c)	1		
d)	1		
e)	1		
f)	2		
g)	2		
h)	1		
Total	10		

Student signature: I certify that the work presented is my own. I acknowledge that I have received and understood feedback about this assessment.	Sign	Grade
		/10
Student Comment:		
Teacher comment:		

A wave travelling in the positive x direction is showed in the figure. The wave has a frequency ( $f$ ) of 5 Hz. Find the following.

1)



- a) Trough ( the point with the minimum displacement) is at  $y=$  \_\_\_\_\_ (1 mark)
- b) Crest ( the point with the maximum displacement) is at  $y=$  \_\_\_\_\_ (1 mark)
- c) How many waves in the figure? \_\_\_\_\_ (1 mark)
- d) Amplitude ( $A$ ) = \_\_\_\_\_ (1 mark)
- e) Wavelength ( $\lambda$ ) = \_\_\_\_\_ (1 mark)
- f) Period ( $T$ ) = \_\_\_\_\_ (2 mark)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Use  $T = \frac{1}{f}$

- g) Wave speed= \_\_\_\_\_ (2 mark)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Use  $v = f\lambda$

- h) What is the wave type (Longitudinal or transverse)? \_\_\_\_\_ (1 mark)

\_\_\_\_\_



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1)

a) 8 cm (1 mark)

b) 8 cm (1 mark)

c) 8 cm (1 mark)

d) Amplitude (A) = \_\_\_\_\_ (1 mark)

e) 20 cm (1 mark)

f) Period (T) =

$$T = \frac{1}{f}$$

$$T = \frac{1}{5}$$

1 mark

$$T = 0.2 \text{ s}$$

1 mark for answer and unit

g)  $v = f\lambda$

$$v = 5 \times 20$$

1 mark

$$v = 100 \text{ cm/s}$$

1 mark for answer and unit

h) Transverse

1 mark