

Date: 21-01-2021

Class: 8th Genesis

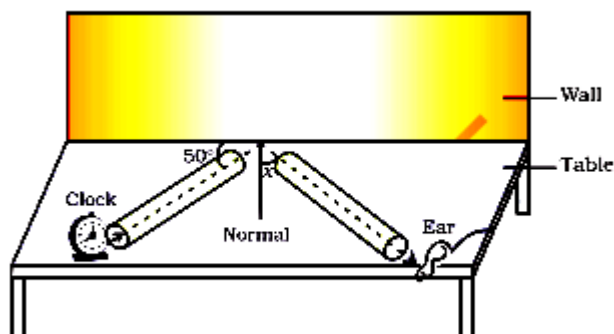
Subject: Science

Test code: SEP17(21011319)

Physics

M. Marks: 20

1. Why are sound waves called mechanical waves? (1 marks)
2. Suppose you and your friend are on the moon. Will you be able to hear any sound produced by your friend? (1 marks)
3. Which wave property determines (a) Loudness, (b) pitch? (1 marks)
4. Guess which sound has a higher pitch; guitar or car horn? (1 marks)
5. How are the wavelength and frequency of a sound wave related to its speed? (1 marks)
6. Explain how sound is produced by your school bell. (1 marks)
7. What are wavelength, frequency, time period and amplitude of a sound wave? (2 marks)
8. Sound produced by a thunderstorm is heard 10 s after the lightning is seen. Calculate the approximate distance of the thunder cloud. (Given speed of sound = 340 m s^{-1}). (2 marks)
9. For hearing the loudest ticking sound heard by the ear, find the angle x in the fig. (2 marks)



10. Why is the ceiling and wall behind the stage of good conference halls or concert halls made curved? (2 marks)
11. Establish the relationship between speed of sound, its wavelength and frequency. If velocity of sound in air is 340 m s^{-1} , calculate (3 marks)
 - (i) Wavelength when frequency is 256 Hz.
 - (ii) Frequency when wavelength is 0.85 m.
12. Draw a curve showing density or pressure variations with respect to distance for a disturbance produced by sound. Mark the position of compression and rarefaction on this curve. Also define wavelengths and time period using this curve. (3 marks)

Chemistry

M. Marks: 20

1. Name two liquids which conduct electricity and two liquids which do not conduct electricity. 2
2. Acidified water is electrolysed by using carbon electrodes. What is produced at :
 - (a) Positive carbon electrode?
 - (b) Negative carbon electrode? 2
3. State by giving reason whether the following statements are true or false:
 - (a) Rainwater is a non – conductor of electricity.
 - (b) A piece of fresh potato does not conduct electricity at all. 2
4. (a) What is the advantage of using LED in testing the electrical conductivity of liquids?
 - (b) Which effect of electric current is utilized for detecting the flow of current through a solution. 3
5. (a) Why is it dangerous to touch a working electrical appliance with wet hands?
 - (b) Distilled water does not conduct electricity. What substances can be added to distilled water in small amounts to make it a good conductor of electricity? Why? 3
6. (a) Which effect of electric current is utilized when a thin layer of chromium metal is deposited on an iron tap? What is this process known as?
 - (b) For electroplating copper on an iron object, which terminal of the battery (positive or negative) is connected to the iron object? Also name the electrolyte you will use for this purpose. 3
7. (a) A strip of impure copper metal is given to you. Describe briefly how you will purify it by using the chemical effect of electric current. Draw a labelled diagram of the experimental set up used for this purpose.
 - (b) Name any two applications of the chemical effect of electric current.
 - (c) What is electrolysis? Explain why, in the electrolysis of water, 'acidified water' is used. 5

Biology

M. Marks: 20

1. Define asexual reproduction. Describe two methods of asexual reproduction in animals (2)
2. Write notes on: (2)
 - (a) Menstruation
 - (b) Secondary sexual characters
3. What is metamorphosis? Give example? (2)
4. What are sex hormones? Why are they named so? State their function. (3)
5. Define the following: (3)
 - (a) Internal fertilisation
 - (b) Embryo
 - (c) Oviparous animals
6. What is a balanced diet? Write its compositions? (3)
7. Draw a well labelled diagram of female reproductive system. Also mention- (5)
 - (a) In which female reproductive organ does the embryo gets embedded
 - (b) Site of fertilisation

Pinnacle