

T1-Elements And Compounds Around Us, Measurement And Force And Pressure  
Model Question Paper III

8th Standard

Science

Reg.No. : 

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I. Answer all the questions

Time : 01:45:00 Hrs

Total Marks : 40

4 x 1 = 4

Part-A

- 1) The SI unit of pressure is  $N/m^2$ . This unit is otherwise called \_\_\_\_\_  
(a) pascal (b) newton (c) joule
- 2) Atmospheric pressure at sea level is approximately equal to \_\_\_\_\_  
(a)  $10^5 N/m^2$  (b)  $10^7 N/m^2$  (c)  $10^3 N/m^2$
- 3) Friction is a \_\_\_\_\_ force  
(a) Contact (b) Non-Contact
- 4) As we go higher and higher atmospheric pressure \_\_\_\_\_  
(a) increases (b) decreases

Part-B

4 x 1 = 4

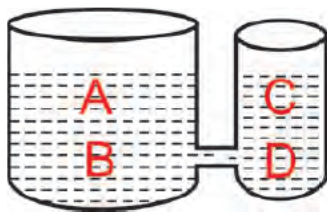
- 5) The symbol for units should be written with a small letter.  
(a) True (b) False
- 6) There should be a full stop at the end of a symbol for units.  
(a) True (b) False
- 7) We should not use plurals when we write the unit in words.  
(a) True (b) False
- 8) The SI unit for mass is KG.  
(a) True (b) False

Part-C

7 x 1 = 7

- 9) Water is made up of two elements, hydrogen and oxygen. Water is a liquid, whereas hydrogen and oxygen are gases. Hydrogen catches fire easily. Oxygen helps in burning. Water is used to put off the fire.  
**From the above information, answer the following questions.**
  - a) What are the elements present in water?
  - b) In which state do these elements exist?
  - c) Write the property of hydrogen.
  - d) Write the property of oxygen.
  - e) Do the properties of water differ from hydrogen and oxygen?
- 10) Ramu and Madhu are friends. They wanted to measure the length of a room. Ramu wanted to measure it in foot. But Madhu wanted to measure it in metres. Who is right in measuring the room in the internationally accepted system. Why?
- 11) Which of the following statement is correct?
  - a. The unit of force is Newton
  - b. The unit of force is newton
- 12) Murugan measured the electric current. What unit should he use?
- 13) Correct the given statement.  
The gravitational force of moon is equal to the gravitational force of earth.
- 14) List out the following actions on the basis of contact force and non contact force
  - a) lifting a chair
  - b) the falling of a coconut from the tree
  - c) friction between the road and the tyre of a car
  - d) a comb attracts bits of paper
  - e) attraction between two magnets

- 15) By observing the diagram, answer the following.
- How does the pressure at A differ from the pressure at B.?
  - The pressure at B is greater than the pressure at D. Is it true?. Justify your answer.
  - Compare the pressure at A and C.
  - If the water is replaced with mercury, how would this affect the pressure at A and D?



Part-D

5 x 2 = 10

- 16) Find the valency of the underlined element in the given formulae.



- 17) write the chemical name of the given formulae.



- 18) write the chemical name of the given formulae.



- 19) Write the names of the planets(Greek God) after which these elements are named.

Neptunium

- 20) Write the names of the planets(Greek God) after which these elements are named.

Uranium

Part-E

5 x 3 = 15

- 21) We know Pressure =  $\frac{Force}{Area}$

If 50 N force is applied on a liquid and it experiences 25 N/m<sup>2</sup> pressure. Find out the area on which the force is applied?

- 22) We know that pressure can also be calculated by using the formula  $p = h\rho g$  A rectangular storage tank is filled with paraffin. The height of the tank is 2m. Density of paraffin is 800 kg/m<sup>3</sup>, the value of g is 10 m/s<sup>2</sup>

Calculate

- the pressure at the bottom of the tank
  - the pressure at a depth of 1 m.
- 23) Swathi went by car to Ooty last week, when the car was climbing the mountain, her ears popped. She felt uneasy but after sometime she felt better. Why did her ears pop when she climbed the mountain?
- 24) We know that friction depends upon mass of the body when we roll down an iron ball and a football on the ground, which ball will travel more distance? Why?
- 25) In a car, friction is essential in some parts but needs to be reduced in some parts. Give two examples of where friction is a) Essential and b) Needs to be reduced in a car.

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