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SA1 MODEL PAPER-1
Physical Science
9th Class

I. Choose the correct answer. 10×1=10M

1.What do we get by the product of mass and velocity? ( )
A) Force
B) Inertia
C) weight
D) momentum

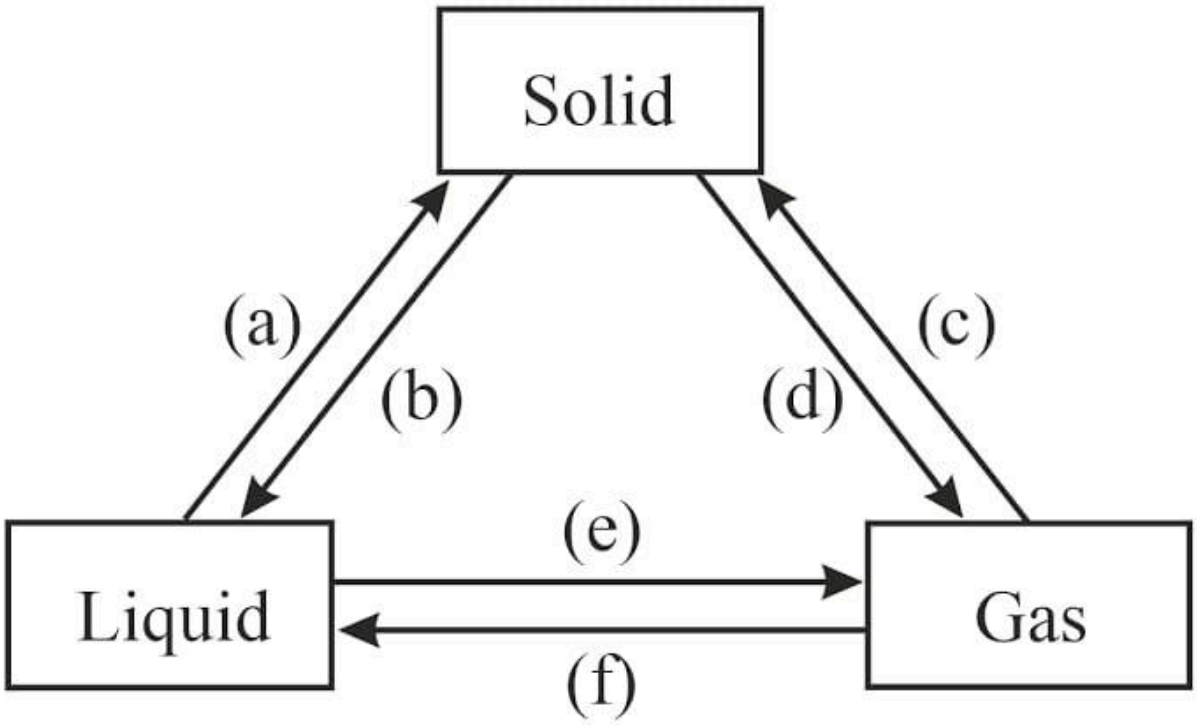
2. What is the gravitational force between two objects ( )
A) attractive at large distances only
B) attractive at a small distances only
C) attractive with all distances
D) attractive at large distances but repulses at small distances.

3. Two substances A and B were made to react to reaction to a third substance A_2B according to the following.

$2A+B \Rightarrow A_2B$

Which of the following statements concerning this reaction are incorrect. ( )
i) The product A_2B shows the properties of substances A and B
ii) the product will always have a fixed composition
iii) the product so formed cannot be classified as a compound
iv) the product so formed is an element.
A) i) , ii) and iii) B) ii) , iii) and iv)
C) i) , iii) and iv) D) ii) , iii) and iv)

4.Weight of an object on earth is 98N. What is its mass on the moon? ( )
A) 16.25 N
B) 16.25 kg
C) 10 kg
D) 10N
5.



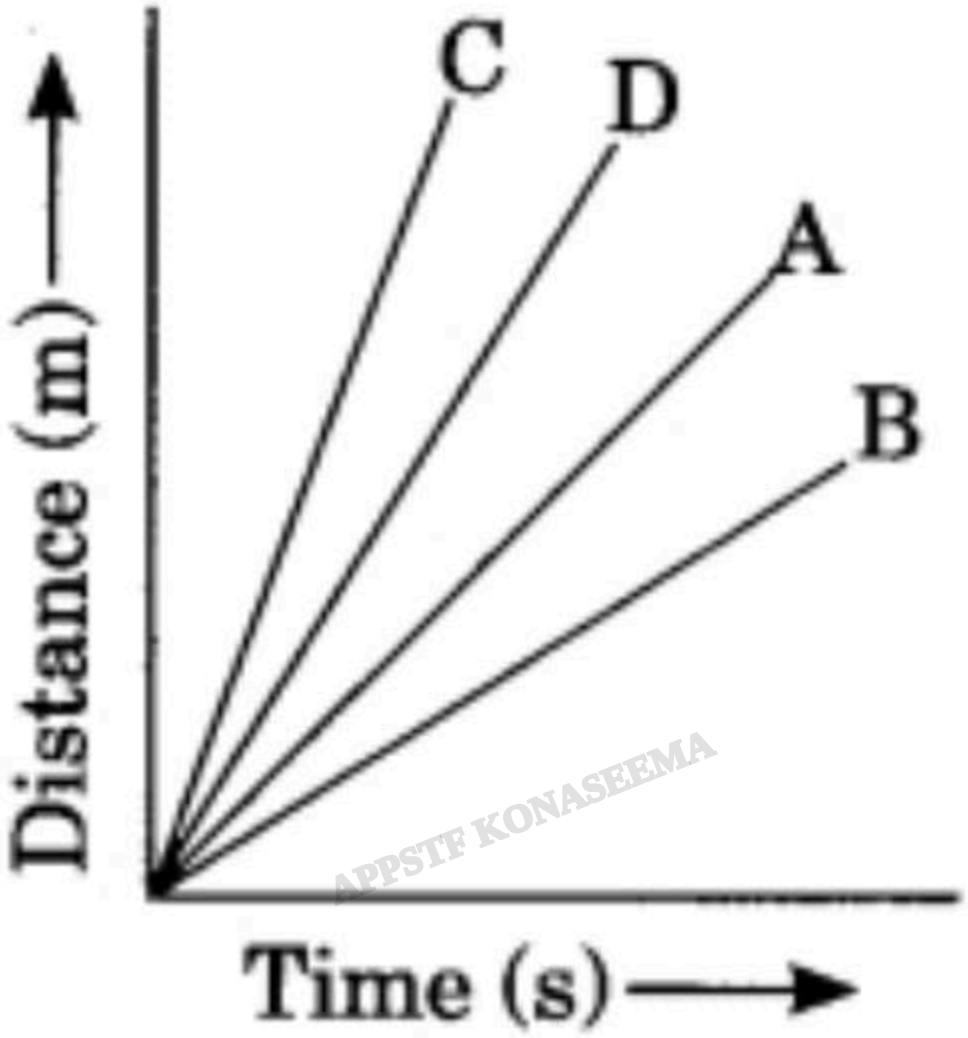
Which is wrong? ( )
A) c-evaporation
B) b-fusion
C) f-condensation
D) a-solidification

6.Which of the following decreases the rate of evaporation? ( )
A) Increase in surface area B) Increase in humidity
C) Increase in wind speed D) Increase in temperature

7.A solution of 320g contains 80 grams of sugar. Calculate the concentration in terms of mass by mass percentage of the solution ( )
A)10% B)15% C)20% D)25%

8.Swetha swims in a 90 m long pool. She covers 360m in 1 minute by swimming from one end to other and back along the same straight path. Find the average speed and average velocity of Swetha respectively
A) 0 m/s and 6 m/s
B) 6 m/s and 0 m/s
C) 3 m/s and 0 m/s
D) 0 m/s and 3 m/s

9.



Four cars A,B,C and D are moving on a levelled road. Their distance versus time graphs are shown in the given figure. Choose the correct statement. ( )

A) car A is faster than C
B) Car B if faster than A
C) car C fastest
D) car D is slower than A

10.Which of the following is not an example of the Third law of motion? ( )

A) A rocket taking off
B) Walking on the ground
C) A ball falling freely under gravity
D) Recoil of a gun

II. Answer the following questions. 3×2=6M

11) Classify the following into elements, compounds and mixtures

Sodium,coal, methane,tin,air, carbon dioxide

12) Differentiate between speed and velocity.

13.Complete the table.

Distance travelled	Time taken	Speed
18 km	1hour	———— m/s
3km	5 min	———— m/s

III. Answer the following questions. 2×4=8M

14A) Define Sublimation. Draw a labelled diagram showing the sublimation process of ammonium chloride.

(OR)

14B) State Third law of motion. Draw a diagram showing " Action and reaction forces are equal and opposite"

15) Write the equations of motion and explain the terms of them.

III. Answer the following questions. 2×8=16M

16A) Explain universal law of gravitation. Write its importance.

OR

16B) State the three laws of motion and Derive F=ma.

17A) Differentiate between mixtures and compounds

OR

17B) Give reasons.

i) Steam produces more burns than boiling water.

ii) We can get the smell of perfume sitting several metres away

iii) Water at room temperature is a liquid.

iv) Our palm feels cold when we put some acetone or petrol on it.

key

1.D. 2.C 3.C 4.C 5.A

6.B 7.D 8.B 9.C 10.C

11A) ELEMENTS: Sodium ,Tin

COMPOUNDS: Methane,Carbon dioxide

MIXTURES: Coal, Air

13A) i) 5

ii) 10

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