SUMMATIVE ASSESSMENT - I : 2016

GENERAL SCIENCE - Paper - I

(Physical Science)

(English Version)

PART - A & B

Class : IX | Max. Marks : 40 | Time : 2-45 Hrs.

Marks : 30 PART - A

Instructions :

1) **In the time duration of 2 hrs 45 min. 15 minutes of the time is exclusively allotted to read and understand the question paper.**
2) **The question paper comprises of Three sections I, II, III.**
3) **All the questions are compulsory.**
4) **There is no overall choice. However there is internal choice to the questions under section - III.**

SECTION - I

Note : 1) Answer all the questions.
2) Each question carries 1 mark. 4 x 1 = 4

1. Convert 273^0C into Kelvin Scale.
2. "She moves at constant speed in a constant direction". Rephrase the same sentence in fewer words using concepts related to motion.
3. A and B are two bodies. A exerts a force on B by F due north. What is the force on A by B ?
4. A mixture contains camphor and sodium chloride. Which technique is used to separate the given constituents ?

[Turn Over...

SECTION - II

Note : 1) Answer all the questions.
2) Each question carries 2 marks. **5 x 2 = 10**

5. Give any two examples for diffusion.
6. When does average velocity becomes zero? Give two examples.
7. If a fly collides with the windshield of a fast moving bus. Is the impact force experienced same for the bus and fly? Why?
8. A car moves with uniform speed 15 meter per second along a straight road. Which law is suitable to explain the given situation and write the law.
9. Kavya mixed water and coconut oil in her home by mistake. Which physical property is used for separation of given liquids ? Which apparatus is to be used to separate those two liquids?

SECTION - III

Note : 1) Answer all the questions.
2) Each question carries 4 marks. **4 x 4 = 16**

10. (A) On what factors evaporation depend ? Explain.

(OR)

(B) a) If 100 gm of salt dissolved in 900 gr of water, find the mass percentage of salt.

b) Recognise the true solutions and colloids from the following list. Brass, Fog, Soda water, milk, spray, starch solution, muddy water.

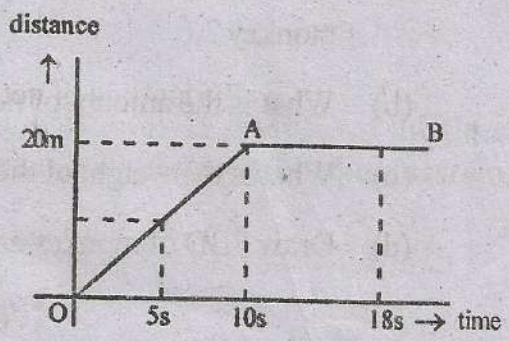
[Contd...3

11. (A) Do all gases diffuse with same speed? Explain with an experiment.

(OR)

(B) How do you find acceleration of an object moving on inclined track experimentally.

12. (A) See the graph. Consider a body moving along a straight line.



(a) What kind of motion does the body posses from t = 0s to t = 10s?

(b) What is the velocity at t = 5s ?

(c) What is the distance covered in 5s ?

(d) What is the velocity at 18s ?

(Or)

(B) See the situations given below :

Situation A : A truck moves with a certain speed and collides a wall and comes to rest.

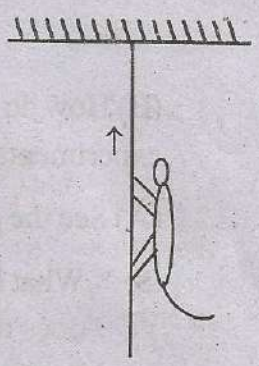
Situation B : The same truck moves with the same speed and collides a heap of grass and comes to rest.

(**Clue :** In both situations, the initial momentum of lorry is same and final momentum of lorry is zero. Observe there is a change in time of impact in both situations.)

In which situation, damage is more. Why ? Explain.

13. (A) See figure.

A monkey of mass 5 kg moves up at an acceleration of 1 m/s^2. Take $g = 10 m/s^2$. Answer the following questions based on given information.



(a) What is the direction of net force on monkey ?

(b) What is the amount of net force ?

(c) What is the weight of the monkey ?

(d) Draw FBD of monkey and what is the tension in the rope ?

(OR)

(B) Two miscible liquids having difference in their boiling point less than 25^0C are mixed. Which technique is used to separate them? Draw and label the parts of figure. For the separation of components of air which technique is employed.

Regd. No. : [ ] **54-A** Marks : [ ]

SUMMATIVE ASSESSMENT - I - 2016

GENERAL SCIENCE - Paper - I

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PART - B

Class : IX **Marks : 10**

Academic Standard	A.S - 1	A.S - 2	A.S - 3	A.S. - 4	A.S - 5	A.S - 6	Total
Question Numbers	1,2,5,6,10 14 - 25	3, 7 26, 27	4, 11 28, 29	8, 12	13	9 30 - 33	33
Max. Marks Allotted	16	4	6	6	4	4	40
Marks Obtained							
Grade							

Name of the Student ..... Roll No. .....

Instructions :

1) **Answer all the questions.**
2) **Each question carries ½ mark.** **20 x ½ = 10**
3) **Choose the correct answer and write its letter in the brackets.**

14. Non-compressible among the following ( )
    A) Hydrogen gas B) Oxygen gas
    C) Nitrogen gas D) Table salt

15. The gas used for cooking in our homes ( )
    A) CNG B) LPG C) Acetylene D) Nitrogen

16. Evaporation ( )
    A) Cooling process B) Surface phenomenon
    C) Depends on temperature D) All of the above

[Turn Over...

17. The melting point of ice and boiling point of water are respectively ( )

A) 273 K, 373 K B) 373 K, 273 K

C) 0 K, 100 K D) 100 K, 0 K

18. A car covers a distance 20km in a heavy traffic in 5 hr, then the average speed is ..... ( )

A) 4 km/hr B) 5 km/hr C) 6 km/hr D) 3 km/hr

19. In uniform circular motion ( )

A) Speed is constant

B) Direction of velocity changes

C) Body moves in circular path

D) All of the above

20. Scalar among the following ( )

A) Velocity B) Acceleration

C) Displacement D) Speed

21. A body from rest accelerates at a rate 0.5 m/s^2. The distance covered in 2 s is ..... ( )

A) 0.5 m B) 4 m C) 1 m D) 2 m

22. In tincture of Iodine solvent is ( )

A) Iodine B) Alcohol C) Water D) Vinegar

23. Compound among the following ( )

A) Lead B) Copper C) Marble D) Mercury

24. Milk is ( )

A) An emulsion

B) A colloid

C) Liquid dispersed in another liquid

D) All the above

[Contd...3

25. Components in an ink are separated by ( )
A) Evaporation B) Boiling
C) Sublimation D) Chromatography

26. The product of mass and velocity is called ..... ( )
A) Force B) Momentum C) Impulse D) Acceleration

27. Kilometer / hour = ... meter / second ( )
A) $\frac{5}{18}$ B) $\frac{18}{5}$ C) $\frac{3}{18}$ D) $\frac{18}{3}$

28. Which of the following is not true for instantaneous velocity (or) velocity? ( )
A) The magnitude of velocity is called speed
B) Velocity is a vector
C) The direction of velocity at a point on a path is tangent at that point
D) It is defined as ratio of displacement to time interval

29. If you go through deep forest you can experience ( )
A) Tyndal effect B) Crompton effect
C) Photoelectric effect D) Raman effect

30. In summer season, on a hot dry day four new pots made with clay were filled with water and kept each one at different regions like desert, platue, hill and river bank. In which region pot, water is more cool. ( )
A) Desert B) Platue C) Hill D) River bank

31. A body moves with uniform acceleration of 20 m/sec^2. Its initial and final velocities are 50 m/sec and 150 m/sec respectively. What is its average velocity? ( )
A) 75 m/sec B) 100 m/sec
C) 125 m/sec D) 150 m/sec

32. Speedometer shows ..... ( )

A) acceleration B) average speed

C) speed D) velocity

33. A rocket moves in an empty space at a speed of 6 km/s. The speed of bolt separated from the rocket is ..... ( )

A) - 6 km/s B) 6 km/s C) Can't say D) 0 km/s