

**★ N - 55**  
**DISTRICT COMMON EXAMINATION BOARD**  
**SUMMATIVE ASSESSMENT - II - DECEMBER - 2015**  
**GENERAL SCIENCE - Paper - I**  
**(Physical Science)**  
**(English Version)**  
**Class : IX ] (Max. Marks : 40) [ Time : 2½ Hrs.**

| Academic Standards | AS1      | AS2  | AS3   | AS4  | AS5 | AS6 | AS7 | Total |
|--------------------|----------|------|-------|------|-----|-----|-----|-------|
| Question No.s      | 1, 6, 10 | 2, 5 | 3, 12 | 7, 8 | 13  | 9   | 4   |       |
| Marks Allotted     | 16       | 4    | 6     | 6    | 4   | 4   | 40  |       |
| Secured Marks      |          |      |       |      |     |     |     |       |
| Grade              |          |      |       |      |     |     |     |       |

Name of the student : ..... Roll. No : .....

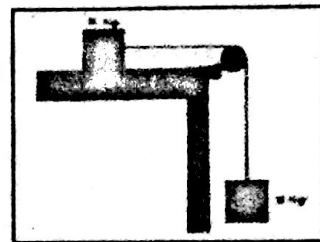
**SECTION - I**

**Note:** (1) Answer All the questions.

**4 x 1 = 4**

(2) Each question carries One mark.

1. What are the three states of matter? (AS1)
2. Your teacher draws the figure guess any two questions your teacher going to ask you about the figure. (AS2)
3. What is the experiment conducted by Rutherford for giving the model of atom ? (AS3)
4. Where does the centre of gravity lie when a boy is doing situps?(AS6)



**SECTION - II**

**Note :** (i) Answer All the questions.

(ii) Each question carry Two marks.

**5 x 2 = 10**

5. Steam produces more severe burns than boiling water. Why? (AS2)
6. Distinguish between speed and Velocity. (AS1)
7. Write any two questions do you ask the person whom you are interviewing for getting the information about the separation of mixtures we come across daily in our houses. (AS4)

**[ Turn Over**

8. Fill in the blanks in the given table. (AS4).

| Name      | Symbol            | Atomic number 'Z' | Mass Number A | Number of Neutrons | Number of Electrons |
|-----------|-------------------|-------------------|---------------|--------------------|---------------------|
| Oxygen    | $^{16}_8\text{O}$ | 8                 | 16            | 8                  | 8                   |
| Beryllium | (i)               | (ii)              | 9             | 5                  | 4                   |
| (iii)     | (iv)              | 12                | 24            | 12                 | 12                  |

9. Explain why a long pole is more beneficial to the tight rope walker if the pole has slight bending. (AS6)

### SECTION - III

**Note :** (i) Answer All the questions.

**4 x 4 = 16**

(ii) Each question carries Four marks.

(iii) For each question there is an internal choice.

10. A train of length 50m is moving with a constant speed of 10m/s. Calculate the time taken by the train to cross an electric pole and a bridge of length 250m.

**(OR)**

Define law of conservation of momentum. And derive  
 $m_1u_1 + m_2u_2 = m_1v_1 + m_2v_2$  (AS1)

11. Define the following terms.

(i) Atomicity

(ii) Valency

(iii) Ion

(iv) Atomic mass of an atom

**(OR)**

Give the main postulates of Bohr's model of an atom. (AS1)

12. Write an activity to show the effect of surface area, Humidity and wind speed on evaporation.

**(OR)**

Write an activity to find the centre of gravity of India map made of steel. (AS3)

13. Draw a neat sketch of arrangement of apparatus for showing that action and reaction forces acting on two different bodies, and label its parts.

**(OR)**

Draw a neat sketch of the apparatus used to separate immiscible liquids like water and kerosene oil and label its parts. (AS5)

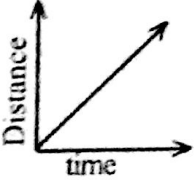
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SECTION - IV

Note : i) Answer All the questions.

ii) Each question carries '½' mark.

iii) Choose the correct answer for the following and place the letters (A, B, C, D) in the brackets given.  $20 \times \frac{1}{2} = 10$

14. The melting point of ice at normal atmospheric pressure is \_\_ ( )  
 A) 273 K    B) 0 K    C) 100°C    D) 100 K
15. Which is more compressible ..... ( )  
 A) Mercury    B) Gas    C) Liquid    D) Solid
16. The amount of water vapour present in the air is called \_\_ ( )  
 A) Fog    B) Dew    C) Humidity    D) Water droplets
17. A body starts from rest and moves with an acceleration of  $2m/s^2$  for '5' seconds, what is its initial velocity ..... ( )  
 A) 2 m/s    B) 5 m/s    C) 10 m/s    D) 0 m/s
18. What is 's' in the equation  $s = ut + \frac{1}{2} at^2$  ..... ( )  
 A) Acceleration    B) Time  
 C) Initial velocity    D) Displacement
19.  Here the graph shows ..... ( )  
 A) Uniform acceleration    B) Non uniform acceleration  
 C) Uniform speed    D) Non uniform speed
20. Falling backwards when the bus starts suddenly can be explained by ..... ( )  
 A) Newton's Second law    B) Newton's first law  
 C) Newton's third law    D) All the above
21. The momentum of 6 Kg ball moving with 2.2 m/s velocity is ..... ( )  
 A) 13.2 kg m/s    B) 8.2 km/s    C) 3.8 kg m/s    D) 12.2 kg m/s
22. The S.I. units of force 'F' are ..... ( )  
 A) kg m/s    B) kg m/s<sup>2</sup>    C) kg s<sup>2</sup>/m    D) ms<sup>2</sup>/kg

[ Turn Over

23. When 20 gm of sugar is dissolved in 80 gr. of water then the mass percentage of the solution is \_\_\_\_\_ ( )  
 A) 100      B) 60      C) 80      D) 20
24. A mixture of Ammonium Chloride and common salt can be separated by \_\_\_\_\_ method. ( )  
 A) Sublimation      B) Chromatography  
 C) Distillation      D) Fractional distillation
25. Fog is an example of \_\_\_\_\_ ( )  
 A) Suspension B) Solution      C) Colloidal      D) Puresubstance
26. The scientist who suggested that "initial letter of an element written in capitals should represent the particular element" is \_\_\_\_\_ ( )  
 A) Berzelius      B) John Dalton      C) Lavoisier      D) Thomson
27. Element 'X' reacts with oxygen to form a compound 'X<sub>2</sub>O'. Can you guess the element ..... ( )  
 A) Ca      B) Mg      C) Na      D) Al
28. The number of Oxygen molecules present in 16 gr of Oxygen gas are ..... ( )  
 A)  $6.022 \times 10^{-23}$       B)  $6.022 \times 10^{23}$       C)  $6.022 \times 10^{32}$       D)  $6.022 \times 10^{15}$
29. The symbol of Sodium is  ${}_{11}^{23}Na$  From this calculate the number of protons present in sodium. ( )  
 A) 12      B) 23      C) 34      D) 11
30. Which one of the following set is an example for Isotopes ..( )  
 A)  ${}_{6}^{12}C$ ,  ${}_{6}^{14}C$       B)  ${}_{19}^{40}K$ ,  ${}_{20}^{40}Ca$       C)  ${}_{13}^{27}Al$ ,  ${}_{14}^{28}Si$       D) All the above
31. Which one of the following is not an Univalent element .... ( )  
 A) Lithium      B) Oxygen      C) Fluorine      D) Sodium
32. The Value of Universal gravitational constant 'G' is \_\_\_\_\_ ( )  
 A)  $6.67 \times 10^{11} Nm^2 / kg^2$       B)  $6.76 \times 10^{-11} Nm^2 / kg^2$   
 C)  $6.67 \times 10^{-11} Nm^2 / kg^2$       D)  $6.76 \times 10^{11} Nm^2 / kg^2$
33. The force of gravity acting on a body is called \_\_\_\_\_ ( )  
 A) Mass      B) Acceleration      C) Gravity      D) Weight

