60-A

SUMMATIVE ASSESSMENT - I - 2017-2018
PHYSICAL SCIENCE - PAPER - 1

(English Medium)
PART - A & B

Class : X	(Max. Marks : 40)	Time : 2,45 Hrs.

Instructions :

1. 15 Minutes are allotted for reading the question paper (Part A & B) in addition to 2.30 hours for writing the answers.
2. Part - A answers should be written in a separate answer book.
3. There are three Sections in Part - A.
4. Answer all the questions.
5. Every answer should be visible and legible.
6. There is internal choice in Section - III.
7. Part-A & B should be given at the beginning of the exam only.

Marks : 30

PART-A

Section - I

Note 1. Answer all the Questions.

      2. Each Question carries 1 Mark

      3. Answer each question in 1 or 2 sentences $4 \times 1 = 4$

1. Convert absolute zero temperature into degree centigrade?

2. $NH_4 + Cl_2 \rightarrow N_2 + NH_4Cl$

    Balance the chemical equation given above

3. Predict the reason, if a milk man doesn't add a very small amount of baking soda to fresh milk?

4. Write the necessary apparatus required to prove Snell's law?

Section - II

Note   **1.** Answer all the Questions.

      2. Each Question carries 2 Marks $5 \times 2 = 10$

5. Write any two differences between dew and fog?

6. A compound of silver 'x' which was light yellow in colour when exposed to sunlight changes to grey colour.

    a) Identify the compound 'x'?   b) Name the type of reaction?

7. Write any four consequences if spherical missors were not known to human beings?

8. Why a person suffering from acidity consumes an antacid tablet? write its generalised equation?

9. Write any two advantages of using optical fibres in telecommunication signal transmission?

Section - III

Note 1. Answer all the Questions.

2. Each Question has internal choice

3. Each Question carries 4 Marks $4 \times 4 = 16$

10. a) 120g lead shots heated to a temperature of 89°C is mixed with water at 30°C kept in a calorimeter. The resultant temperature is found to be 34°C calculate the specific heat of lead shots? (mass of calorimeter = 50g,
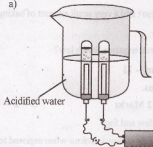
specific heat of calori meter $0.1 \dfrac{cal}{g \, {}^0C}$ mass of water = 50g, specific heat

of water $1 \dfrac{cal}{g \, {}^0C}$)

(OR)

b) What is the principle involved in the formation of mirages. Explain the formation of mirages?

11. a)

Acidified water

Observere the adjacent diagram given and answer the following questions?

i) Identify the process represented in the above diagram?

ii) Name the gas collected at the cathode?

iii) Write the balanced chemical equation for the above process?

iv) What is the ratio of volume of gases collected at the cathode and anode?

(OR)

b)

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

The above scale indicates P^H. Basing on the above scale answer the following questions.

i) Expand 'P' in P^H

ii) Write the range of numbers which indicates acids.

iii) When acid reacts with base, write the P^H number of it's outcome?

iv) Write any one application of P^H scale.

12. a) Describe an experiment to find the specific heat of solids by the method of mixtures?

(OR)

b) Describe an experiment to show the reaction of acids with a compound used as a mild antiseptic.

13. a) Explain with a neat diagram indicating the thermal decomposition reaction with quick lime as one of the products?

Write a balanced equation for another chemical reaction for thermal decomposition.

(OR)

b) A concave mirror of focal length 10 cm is considered and the image of an object is formed at 20cm. Draw a neat ray diagram representing the above situation. Write the characteristics of the image?

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SUMMATIVE ASSESSMENT - I - 2017-2018

PHYSICAL SCIENCE - PAPER - 1

(English Medium)

Class X

Part - B

Time : 30minutes   Marks : 10

Academic standard	AS$_1$						AS$_2$	AS$_3$	AS$_4$	AS$_2$	AS$_4$	T o t a l	G r a d e
Q.No's	1	2	3	4	7	10	14-25	5	26-29	8	11	9	12	13	6	30-33		
Marks																		
Total																		

Name of the Student : _____   Roll No.: _____

Note:

1. **Choose the correct answers from the options given and write the CAPITAL Letter regarding**

2. **Each Question carries $\frac{1}{2}$ mark**

14. Match the following   (   )

P) Heat	X) Calorie
Q) Specific heat	Y) Cal/g
R) Latent heat	Z) Cal/g°C

A) P - X, Q - Y, R - Z   B) P - X, Q - Z, R - R

C) P - Y, Q - X, R - Z   D) P - Z, Q - Y, R - X

15. Which of the following is not correct regarding evaporation   (   )

A) It's a surface phenomenon   B) It's a cooling process

C) It takes place at constant temperature

D) Here phase changes from liquid to gas

16. When sodium sulphate reacts with barium chloride, the colour of the
precipitate formed is ( )

    A) White B) yellow C) Brown D) Rainbow colours

17. Find the correct order in balancing the chemical equation ( )

    P) Put suitable coefficients before the formulae

    Q) Verify the equation for balancing of atoms on the both sides of the arrow mark

    R) Write the equation woith correct chemical formulae

    S) Are to be lowest whole numbers coefficients

    A) P,Q,R,S B) R,Q,P,S C) R,P,S,Q D) R,P,Q,S

18. $2PbO + C \longrightarrow 2Pb + Co_2$ Here ( )

    A) PbO is reduced B) C is Oxidised

    C) Both A and B D) None

19. X : Light selects the path which takes the least time to travel

    Y : Light selects the path which takes the least distance to travel ( )

    A) Both X and Y are correct B) Both X and Y are incorrect

    C) X is correct Y is incorrect D) X is incorrect Y is correct

20. If an incident ray makes an angle of 30^0 with the plane mirror. Then the
angle of refraction is ( )

    A) 30^0 B) 60^0 C) 90^0 D) 0^0

21. A concave mirror of centre of curvature 12cm is taken, where should the object
be placed to heat up the object (from pole) ( )

    A) 6 cm B) 12 cm C) 24 cm D) Can be placed any where.

22. Sour substances are stored in .... vessels ( )

    A) Brass B) porcelain C) Copper D) All the above

23. Metal oxides : Base :: metal hydroxides : .... ( )

    A) Acid B) Base

    C) Both A and B D) None

24. Assertion (A): HCl is strong acid

    Reason (R) : HCl has more H⁺ ions   ( )

    A) Both A and R are true and R is correct explanation of A

    B) Both A and R are true and R is not correct explanation of A

    C) A is true and R is false   D) A is false and R is true

25. Refractive index depends on ....   ( )

    A) Nature of material   B) wave length of light

    C) Both A and B   D) It is independent of A and B

26. The refractive index of glass with respect to air is 2. What would be the possible angle of incidence to take total internal reflection   ( )

    A) 30^0 B) 22.5^0 C) 45^0 D) 60^0

27. Which of the following formula is suitable to find refractive index of glass slab using vertical shift   ( )

    A) $\dfrac{Thick\,ness\,of\,slab}{Vertical\,Shift}$ B) $\dfrac{Vertical\,shift}{Thick\,ness\,of\,slab - vertical\,shift}$

    C) $\dfrac{Thick\,ness\,of\,slab}{1 - Vertical\,shift}$ D) $\dfrac{Thick\,ness\,of\,slab}{Thick\,ness\,of\,slab - vertical\,shift}$

28. Water is heated at S.T.P. It's values are recorded with respect to time. Predict the temperature in the following table

Time(min)	0	5	10	12
Temperature(°C)	80	90	100	

    A) 104^0 B) 96^0 C) 100^0 D) 110^0

29. If acid solution in water conducts electricity then predict the correct option among the following   ( )

    A) Basic solution in water doesn't conduct electricity

    B) salt solution in water doesn't conduct electricity

    C) pure water conduct electricity

    D) pure water doesn't conduct electricity.

30. A boy burnt the magnesium ribbon and got some product. The formula of the
    product is   (   )

    A) Mg,O   B) MgO   C) MgO₂   D) MgCO₃

31. When a light ray falls perpendicular to one side of the glass slab surface,
    comes out ....   (   )

    A) without any deviation   B) deviates towards normal

    C) deviates away from normal   D) don't deviate

32. Purpose of preparing an alloy is to obtain the qualities such as   (   )

    i) hard ness   ii) bright ness   iii) strength

    A) i only-   B) i,ii only   C) i, ii, iii   D) iii only

33. Which of the following mirrors are preferred to get an enlarged image (   )

    A) concave   B) convex   C) plane   D) All the above

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