

# Santosh Academia Talent Examination (2025-26) CLASS-X (STUDYING)

PAPER-1 SET CODE: [A]

Test ID: 719 Time: 1 Hour Max. Marks: 120

## **IMPORTANT INSTRUCTIONS:**

#### **GENERAL**

- 1. This booklet is your Question Paper. Ensure that question paper belongs to the Class in which you are currently studying. If not, contact the invigilator for change of question paper.
- 2. The Test ID is printed on the left-hand top corner of this sheet. If not, contact the invigilator for change of question paper.
- **3.** Use the Optical Mark Recognition (OMR) sheet provided separately for answering the questions. DO NOT FILL till you are told to do so.
- **4.** The TEST PAPER NUMBER is printed on the left-hand top corner of the question paper and SET CODE is printed on the Right-hand top corner of the question paper. Ensure that you fill this in OMR as that on the question paper booklet.
- **5.** Blank spaces are provided within this booklet for rough work. No additional rough sheet will be provided.
- **6.** You are ALLOWED to take away the Question Paper at the end of the examination.

## **QUESTION PAPER FORMAT**

7. This Paper contains 30 questions in total.

Section-I: Question Number 1 to 3 belongs to Physics.

**Section-II:** Question Number 4 to 6 belongs to **Chemistry**.

Section-III: Question Number 7 to 10 belongs to Biology.

Section-IV: Question Number 11 to 20 belongs to Mathematics.

Section-V: Question Number 21 to 30 belongs to Mental Ability.

## **MARKING SCHEME:**

- **8.** Each question carries 4 marks. For each correct response, the candidate will get 4 marks.
- **9.** There is no negative marking for incorrect response or unmarked questions.









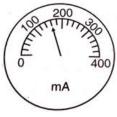
SAMPLEPAPER

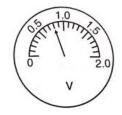




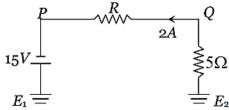
## **SECTION-I PHYSICS**

1. When a wire is connected through a battery the reading of volt meter and ammeter is as shown. The value of resistance of a wire will be





- (a)  $5\Omega$
- (b) 5 KΩ
- (c)  $200 \Omega$
- (d)  $128 \Omega$
- 2. In the following circuit the potential difference between P and Q is



- (a) 15 V
- (b) 10 V
- (c) 5 V
- (d) 2.5 V

- 3. The power of the lens is +2.5D. Its focal length in cm will be
  - (a) +40cm
- (b) -40cm
- (c) + 80cm
- (d) -80cm

## **SECTION-II CHEMISTRY**

- **4.** Which of the following is not a thermal decomposition reaction?
  - (a)  $2H_2O \rightarrow 2H_2 + O_2$

(b)  $2\text{FeSO}_4 \rightarrow \text{Fe}_2\text{O}_3 + \text{SO}_2 + \text{SO}_3$ 

(c)  $ZnCO_3 \rightarrow ZnO + CO_2$ 

- (d)  $2KClO_3 \rightarrow 2KCl + 3O_2$
- 5. The incorrect statement about acids is
  - (a) They give H<sup>+</sup> ion in water
  - (b) They are sour in taste
  - (c) They turn blue litmus red
  - (d) They give pink colour with phenolphthalein
- **6.** Which of the following ores is best concentrated by froth floatation method?
  - (a) Galena
- (b) Cassiterite
- (c) Magnetite
- (d) Malachite

## **SECTION-III BIOLOGY**

- 7. In which of the following groups of organisms, food material is broken down outside the body and absorbed?
  - (a) Mushroom, green plants, Amoeba
- (b) Yeast, mushroom, bread mould
- (c) Paramecium, Amoeba, Cuscuta
- (d) Cuscuta, Lice, Tapeworm





- 8. Posture and balance of the body is controlled by
  - (a) Cerebrum
- (b) Cerebellum
- (c) Medulla
- (d) Pons

- 9. The correct sequence of anaerobic reactions in is
  - Glucose 

     cytoplasm → Pyruvate mitochondria → Ethanol + Carbondioxide (a)
  - Glucose  $\xrightarrow{\text{cytoplasm}}$  Pyruvate  $\xrightarrow{\text{cytoplasm}}$  Lactic acid (b)
  - Glucose 

    cytoplasm 

    Pyruvate 

    mitochondria 

    Lactic acid (c)
  - Glucose cytoplasm Pyruvate cytoplasm Ethanol + Carbon dioxide (d)
- 10. Which of the following is the correct sequence of events of sexual reproduction in a flower?
  - Pollination, fertilisation, seedling, embryo (a)
  - Seedling, embryo, fertilisation, pollination (b)
  - Pollination, fertilisation, embryo, seedling (c)
  - Embryo, seedling, pollination, fertilization (d)

## **SECTION-IV MATHEMATICS**

- The sum of three prime numbers is 100. One of them exceeds the other by 36. Find the largest 11. number of them
  - (a) 73

- (c) 67
- (d) 57
- The value of k such that the quadratic polynomial  $x^2 (k + 6)x + 2(2k + 1)$  has sum of the zeroes as 12. half of their product is

(b) 3

- (c) -5
- 5 (d)
- If one of the zeroes of the cubic polynomial  $x^3 + ax^2 + bx + c$  is -1 then the product of the other two 13. zeroes is
  - (a) b - a + 1
- (b) b - a - 1
- (c) a b + 1
- (d) a - b - 1
- Six years hence a man's age will be three times the age of his son and three years ago, he was nine times as old as his son. The present age of the man is
  - (a) 28 years
- (b) 30 years
- 32 years
- 34 years

Find the roots of the given quadratic equation:

$$4x^2 + 4bx - (a^2 - b^2) = 0.$$

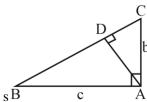
- (a)  $\frac{a+b}{2}, \frac{a+b}{2}$  (b)  $\frac{a-b}{2}, \frac{a+b}{2}$  (c)  $\frac{a-b}{2}, \frac{a-b}{2}$  (d)  $\frac{a-b}{2} \frac{(a+b)}{2}$



**16.** Find the sum of 200 terms of the series

 $1 + 4 + 6 + 5 + 11 + 6 + \dots$ 

- (a) 30210
- (b) 29800
- (c) 30200
- (d) None of these
- 17.  $\triangle$ ABC is a right triangle, right angled at A and AD  $\perp$  BC. If AB = c and AC = b then AD is equal to



- (a)  $\frac{bc}{\sqrt{b^2 + c^2}}$
- (b)  $\frac{bc}{b^2 + c^2}$
- $(c) \qquad \frac{b^2c}{\sqrt{b^2+c^2}}$
- (d) None of these

- **18.** The point (x, y) lies on the line joining (3, 4) and (-5, -6) if
  - (a) 4x 5y + 1 = 0
- (b) 2x + 5y 1 = 0
- (c) 5x 4y + 1 = 0
- (d) 2x 3y + 1 = 0
- 19. If  $\tan \theta + \sin \theta = m$  and  $\tan \theta \sin \theta = n$  then  $m^2 n^2$  is equal to
  - (a)  $\sqrt{mn}$
- (b)  $\sqrt{\frac{m}{n}}$
- (c)  $4\sqrt{mn}$
- (d) None of these
- **20.** The height of a conical tent is 14 m and its floor area is 346.5 m<sup>2</sup>. The length of canvas 1.1 m wide required for it is
  - (a) 490 m
- b) 525 m
- (c) 665 m
- (d) 860 m

## SECTION-V MENTAL ABILITY

21. Find out the missing number from the given responses.

21	24	36
11	14	12
3	?	4
77	112	108

(a) 2

(b) 3

(c) 4

- (d) 5
- 22. Select the option which shares a relationship as that shared by that given pair:
  - $(12 \ 20 \ 4)$
  - (a) (5 10 5)
- (b) (13 18 5)
- (c) (17 27 5)
- (d) (20 15 25)
- 23. Select the pair which are similarly related as in the given pair:

Astronomy: Stars:: Ornithology:?

- (a) Insects
- (b) Birds
- (c) Snakes
- (d) Fishes
- **24.** In a code language, LOVE is coded as 1512522 then WAVE is coded as?
  - (a) 426522
- (b) 425622
- (c) 426252
- (d) 462522







**25.** Select the combination of letters that, when sequentially placed in the blanks of the given series, will complete the series:

a\_bab\_abc\_a\_c\_e

- (a) a edad
- (b) cedce
- (c) acdbd
- (d) aceba
- **26.** Three statements are given, followed by three conclusions I, II & III. You have to consider these statements to be true, even if they seem at variance from commonly known facts. Decide which of the given conclusions logically follows from the given statements?

**Statements:** Each silk is fan.

Few silk is bat.

Some sofa is not silk.

**Conclusions:** I. Some bats can be sofa.

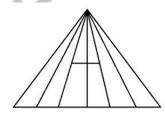
II. Some bats are silk is a possibility.

III. All sofas can be silk.

(a) All conclusions follow

- (b) Only conclusions I and III follow
- (c) Only conclusions II and III follow
- (d) Only conclusions I follow
- **27.** The ratio of the present ages of Samdish and Manoj is 7 : 8. If the difference between their ages is 8 years, what will be Samdish's age after 7 years?
  - (a) 56
- (b) 64
- (c) 63
- (d) 57

28. How many triangles are there in the given figure?



- (a) 22
- (b) 34
- (c) 23
- (d) 24
- **29.** If "x" denotes "÷", "+" denotes "-", "-" denotes "+" and "÷" denotes "x", then

 $133 - 20 \div 24 \times 2 + 14 = ?$ 

- (a) 350
- (b) 357
- (c) 358
- (d) 359
- **30.** In the following question is based on the following information:
  - 1. Six flats on a floor in two rows facing North and South are allotted to P, Q, R, S, T and U.
  - 2. Q gets a North facing flat and is not next to S.
  - 3. S and U get diagonally opposite flats.
  - 4. R next to U, gets a south facing flat and T gets North facing flat.

If the flats of P and T are interchanged then whose flat will be next to that of U?

(a) P

(b) Q

- (c) R
- (d) T







## **ROUGH WORK**











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