COMMON ANNUAL EXAMINATION - 2025

| STA | NE | DAF | SD | - IX |
|-----|----|------------|----|------|
|-----|----|------------|----|------|

| - M | _ | - | 1 | 1 | | 1 |
|--------|------|-------|------|-----|----|----|
| g. No. | 4. T | 100 | 30.0 | 5.5 | | 10 |
| 5- n H | | · 920 | 71 | 15 | 97 | |

| Tin | ne : 2 | 2.30 hrs | MATHE | MATICS | Marks : 10 |
|-----|--------|---|---|--|---|
| I. | An | swer ALL the ques | tions: | | 14×1=1 |
| | 1) | The set $P = \{x/x \in A \mid x \in A \}$ | z, -1 <x<1} a<="" is="" th=""><th></th><th></th></x<1}> | | |
| | | a) Singleton set | | b) Power set | |
| | | c) Null set | | d) Subset, | *** |
| | 2) | Which one of the | following is an irr | ational number? | , je |
| | | -> /55 | . 97 | , 7 | |
| | ٥, | a) √25 | b) $\sqrt{9/4}$ | c) $\frac{7}{11}$ | d) π |
| | 3) | Degree of the con | | 의 마이트 (1.147 -) ('하이트 왕강(1.15) 보는 사람이 되었다. | |
| | | a) 3 | b) 2 | c) 1 | d) 0 |
| | 4) | 그들은 경에 다른 살아가는 그는 사람들이 걸다. | wing is not a linea | ar equation in two var | |
| | | a) $ax+by+c=0$ | | b) $ox+oy+c = 0$ | 0 |
| | | c) $ox+by+c=0$ | | d) $ax+oy+c = 0$ | 3. 시민이 이렇게 아이지는 시민이를 보고 말했다. 그 회사를 |
| | 5) | | riangle are 3x-40 | , x+20 and 2x-10, the | n the value of x is |
| | | a) 40° | b) 35° | c) 50° | d) 45° |
| | 6) | The exterior angle | of a triangle is e | qual to the sum of tw | 0 |
| | | a) Exterior angles | | b) Interior oppo | osite angles |
| | | c) Alternate angles | | d) Interior angle | es |
| | 7) | If the y-co-ordinate | of a point is zer | o then the point alway | ys lies |
| | | a) in the I quadrata | nt | b) in the II quad | 그게 보다가 하는 사이를 하는 것이 되었습니다. 하면 하면 없는 그리고 있는데 하는 사람이 되었습니다. |
| | | c) on x-axis | | d) on v-axis | |
| | 8) | The value of tan1° | tan2° tan3° | tan89° is | 27 5 |
| | 1 | a) 0 | b) 1 | c) 2 | $\frac{27}{2}$ (b |
| | 9) | The capacity of a | water tank of dim | nensions 10m×5m×1. | 5m is 85 |
| | ne d | a) 75 litres | b) 750 litres | c) 7500 litres | d) 75000 litres |
| | 10) | The distance between | een the point (5 | -1) and the origin is | 그는 아들이 가는 없는 그리다는 무료되었다면서 맛이 그렇다는 것이 하는 것이다. |
| | | a) $\sqrt{24}$ | b) √37 | -1) and the origin is - | d) √17 |
| | 11) | If the ratio of the si | | c) $\sqrt{26}$ | |
| 100 | | will be | - The cube | s are 2:3, then the rac | io of their surface areas |
| | | a) 4:6 | b) 4:9 | | d) 16:36 |

c) 6:9

| | | S 10 10 10 10 10 10 10 10 10 10 10 10 10 | | 1 | | | | |
|-----|---|---|---|--|---|---|---|---|
| | Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 0 (M-) (M-) | |
| 26) | Find the mode of the | e follow | ing data | a : | | | | |
| 25) | Find the median of | the give | n value | s: 47, 5 | 3, 62, 7 | 1, 83, 21, | 43, 47, 41 | |
| 24) | Find the volume of | cube w | nose sid | de is 10 | cm. | | | |
| 23) | Find the value of ta | n15° tan | 30° tan | 45º tan6 | 0° tan7 | | 1947X | |
| | 그 있는 그 그는 이번 그렇게 되었다면 그렇게 되었다면 하다. | | | | | 7 3) | | |
| 21) | Find the centroid C(10, -5). | of the | triangle | e whose | vertic | es are A | .(6, -1), B(8 | 3, 3) and |
| | | | | | | | | |
| 19) | Write the co-efficie | nt of x ² | and x fo | or the po | lynomia | 16-2x ² | $+3x^3 - \sqrt{7}$ | (: |
| 18) | Evaluate 7 ³ –10 ³ +3 | ³ using i | dentity. | | | | | |
| | | | | | | | | |
| | | | | | LELUG | | VOSICI IUIM. | |
| | | | | | | | | |
| Δn | | | | | | | mula a= V | |
| | 그리트 그리스 그리고 있다. | | | | | | | |
| 14) | | of an exp | erimen | | | <u> </u> | erit (dis ate | 21. |
| | a) 26 | b) 46 | | C |) 48 | | d) 52 | |
| 13) | The mean of the so | | | natural | number | r is | · · · · · · · · · · · · · · · · · · · | |
| | a) 6340000 | | | | 6) 63400 | 00 | d) 634 | |
| 12) | The decimal form of | of 6.34× | 104 is | 2 | . West | | | X - Math |
| | 13) 14) Ans 15) 16) 17) 18) 20) 21) 22) 23) 24) 25) | a) 6340000 13) The mean of the so a) 26 14) A particular result of a) Trial c) Compound ever Answer ANY TEN of the set of letter 15) Write the set of letter 16) Draw the Venn diagram 17) Express 0.24 as result 18) Evaluate 73-103+3 19) Write the co-efficien 20) The angles of a quality 21) Find the centroid C(10, -5). 22) In which quadrant of (i) (3, -8) (ii) (-23) Find the value of tangles of the median of 25) Find the median of 26) Find the mode of the set | a) 6340000 b) 634 13) The mean of the square of a) 26 b) 46 14) A particular result of an expa) Trial c) Compound event Answer ANY TEN of the follow 15) Write the set of letters of th 16) Draw the Venn diagram: (i) 17) Express 0.24 as rational norm 18) Evaluate 73-103+33 using in 19) Write the co-efficient of x2 and 20) The angles of a quadrilater 21) Find the centroid of the C(10, -5). 22) In which quadrant does the (i) (3, -8) (ii) (-1, -3) 23) Find the value of tan15° tan 24) Find the wolume of cube with the cube of the follow 26) Find the median of the follow 27) Find the median of the follow 28) Find the mode of the follow | a) 26 b) 46 14) A particular result of an experiment a) Trial c) Compound event Answer ANY TEN of the following. (15) Write the set of letters of the word 16) Draw the Venn diagram: (i) A∪B (17) Express 0.24 as rational number. 18) Evaluate 7³−10³+3³ using identity. 19) Write the co-efficient of x² and x for 20) The angles of a quadrilateral are in 21) Find the centroid of the triangle C(10, −5). 22) In which quadrant does the following (i) (3, −8) (ii) (−1, −3) (iii) (2, 23) Find the value of tan15° tan30° tan 24) Find the wolume of cube whose side 25) Find the median of the given value 26) Find the mode of the following data | 12) The decimal form of 6.34×10 ⁴ is a) 6340000 b) 63400 13) The mean of the square of first 11 natural a) 26 b) 46 14) A particular result of an experiment is calle a) Trial c) Compound event Answer ANY TEN of the following. (Questic 15) Write the set of letters of the word 'PARAL 16) Draw the Venn diagram: (i) A B (ii) A B 17) Express 0.24 as rational number. 18) Evaluate 7³-10³+3³ using identity. 19) Write the co-efficient of x² and x for the po 20) The angles of a quadrilateral are in the rat 21) Find the centroid of the triangle whose C(10, -5). 22) In which quadrant does the following point (i) (3, -8) (ii) (-1, -3) (iii) (2, 5) 23) Find the value of tan15° tan30° tan45° tan6 24) Find the redian of the given values: 47, 55 26) Find the mode of the following data: | 12) The decimal form of 6.34×10 ⁴ is a) 6340000 b) 63400 c) 63400 13) The mean of the square of first 11 natural number a) 26 b) 46 c) 48 14) A particular result of an experiment is called a) Trial b) Simple c) Compound event d) Outco Answer ANY TEN of the following. (Question No. 215) Write the set of letters of the word 'PARALLELOG's 16) Draw the Venn diagram: (i) A\(-\text{B}\) (ii) A\(-\text{B}\) 17) Express 0.24 as rational number. 18) Evaluate 7 ³ -10 ³ +3 ³ using identity. 19) Write the co-efficient of x ² and x for the polynomia 20) The angles of a quadrilateral are in the ratio 2:4:5:21) Find the centroid of the triangle whose vertice C(10, -5). 22) In which quadrant does the following points lie? (i) (3, -8) (ii) (-1, -3) (iii) (2, 5) (iv) (-7) (iv) | 12) The decimal form of 6.34×10 ⁴ is | 12) The decimal form of 6.34×10⁴ is a) 6340000 b) 63400 c) 634000 d) 634 13) The mean of the square of first 11 natural number is a) 26 b) 46 c) 48 d) 52 14) A particular result of an experiment is called a) Trial b) Simple event c) Compound event d) Outcome Answer ANY TEN of the following. (Question No. 28 is compulsory) 15) Write the set of letters of the word 'PARALLELOGRAM' in Roster form. 16) Draw the Venn diagram: (i) A∪B (ii) A−B 17) Express 0.24 as rational number. 18) Evaluate 7³-10³+3³ using identity. 19) Write the co-efficient of x² and x for the polynomial 6 − 2x² + 3x³ − √7. 20) The angles of a quadrilateral are in the ratio 2.4:5:7. Find all the angles. 21) Find the centroid of the triangle whose vertices are A(6, −1), B(6 C(10, −5). 22) In which quadrant does the following points lie? (i) (3, −8) (ii) (−1, −3) (iii) (2, 5) (iv) (−7, 3) 23) Find the value of tan15° tan30° tan45° tan60° tan75°. 24) Find the median of the given values: 47, 53, 62, 71, 83, 21, 43, 47, 41 26) Find the mode of the following data: |

| | No. of Students | 22 | 40 | 34 | 20 | | |
|-----|----------------------|-----------------|---------|-------|----------|-----------------------|-----------|
| 27) | What is the probabil | ity of throwing | an even | numbe | r with a |] I single standar | d dice of |
| | six faces? | | | | | | |

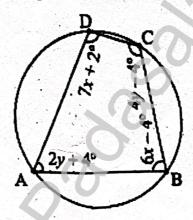
28) Find the value of cos19°59'.

| | 0' | 6' | 12' | 18' | 24' | 30' | 36' | 42' | 48' | San | M | ean | Diffe | ren |
|-----|------|------|------|------|------|------|------|------|------|---|---|-----|-------|-----|
| | 0.0° | 0,1° | 0.2° | 0.3° | 0.40 | 0.5° | 0.6° | 0.7° | 0.8° | 0.9° | 1 | 2 | 3 | 4 |
| 19° | | | | | | | | 1764 | Sour | 0.9403 | | | | |

IX - Maths

III. Answer ANY TEN of the following. (Question No. 42 is compulsory) 10×5=50

- 29) Verify $(A \cap B)' = A' \cup B'$ using Venn diagram.
- 30) In a school, all students play either Hockey or Cricket or both. 300 play Hockey, 250 play Cricket and 110 play both games. Find
 - i) the number of students who play only Hockey.
 - ii) the number of students who play only Cricket.
 - iii) the total number of students in the school.
 - 31) Arrange surds in descending order: ₹5, ₹4, ₹3
 - 32) Simplify: $(2.75 \times 10^7) + (1.23 \times 10^8)$
 - 33) Factorise $2x^3-3x^2-3x+2$.
 - 34) If the quotient obtained on dividing $(8x^4-2x^2+6x-7)$ by (2x+1) is $(4x^3+px^2-qx+3)$, then find p, q and also the remainder.
 - 35) Find all the angles of the given cyclic quadrilateral ABCD in the figure.



- 36) Show that the points A(5, 4), B(2, 0), C(-2, 3) taken in order form an isosceles triangle.
- 37) The sides of the triangular ground are 22m, 120m and 122m. Find the area and cost of levelling the ground at the rate of ₹ 20 per m².
- 38) A cubical tank can hold 64000 litres of water. Find the length of its sides in metres.
- 39) Find the mean for the following frequency table.

| Class Interval | 100-120 | 120-140 | 140-160 | 160-180 | 180-200 | 200-220 | 220-240 |
|----------------|---------|---------|---------|---------|---------|---------|---------|
| Frequency | 10 | 8 | 4 | 4 | 3 | 1 | 2 |

40) Find the mode of the following data:

| Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|--------------------|------|-------|-------|-------|-------|
| Number of students | 22 | 38 | 46 | 34 | 20 |

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C.

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IX - Maths

41) 1500 families were surveyed and following data was recorded about their maids at homes.

| Types of maids | only part time | only full time | both |
|--------------------|----------------|----------------|------|
| Number of families | 860 | 370 | 250 |

A family is selected at random. Find the probability that the family selected has

- (i) Both types of maids (ii) Part time maids (iii) No maids
- 42) Represent 4.863 on Number line.

IV. Answer ALL the following questions:

2×8=16

43) a) Construct the circumcentre of the \triangle ABC with AB = 5 cm, \angle A = 60° and \angle B = 80°. Also draw the circumcircle and find the circumradius of the \triangle ABC.

(OR)

- b) Construct the Δ LMN such that LM = 7.5 cm, MN = 5 cm and LN = 8 cm. Locate its centroid.
- 44) a) Solve graphically: x+y=7; x-y=3

(OR)

b) Draw the graph for y = 4x-1.