MATHS

BOOKS - CBSE COMPLEMENTARY MATERIAL MATHS (HINGLISH)

PRACTICES QUESTION PAPER -3

Part A

1. A rational number $\frac{5}{7}$ is equivalent to

A. $\dfrac{15}{17}$

B. $\dfrac{25}{27}$

C. $\dfrac{10}{14}$

D. $\dfrac{10}{27}$

Answer: C

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2. Zero of the polynomial $p(x) = 2x + 5$ is

A. 2

B. $\dfrac{2}{5}$

C. 5

D. $-\dfrac{5}{2}$

Answer: D

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3. The polynomial of type $ax^2 + bx + c$, when

a=0

A. Linear

B. Quadratic

C. Cubic

D. Biquadratic

Answer: A

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4. Through which of the following point , the graph of y=-x passes?

A. (1,1)

B. (0,1)

C. (-1,1)

D. (0,0)

Answer: C

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5. Graph of which question is parallel to x-axis?

A. $y = x + 1$

B. $y = 2$

C. $x = 3$

D. $x = 2y$

Answer: B

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6. Find the measure of an angle which is $32°$ less than its supplement.

A. $148°$

B. $60°$

C. $74°$

D. $55°$

Answer: C

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7. If $\angle P$ and $100°$ form a linear pair what is the

measure of $\angle P$

A. $80°$

B. $180°$

C. $120°$

D. $75°$

Answer: A

8. In two triangle ABC and DEF, AB= DE ,BC=DF and AC =Ef then

A. $\triangle\ ABC \cong\ \triangle\ DEF$

B. $\triangle\ ABC \cong\ \triangle\ FED$

C. $\triangle ABC \cong \triangle ESE$

D. None of these

Answer: C

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9. If P(E)=0.37 then P (Not E) will be

A. 0.37

B. 0.74

C. 0.57

D. 0.63

Answer: D

10. The radius of hemisphere is "r" what is its total surface area

A. $\dfrac{2}{3}\pi r^3$

B. $3\pi r^2$

C. $2\pi r^2$

D. $\dfrac{4}{3}\pi r^2$

Answer: B

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11. The side of traingle are in the ratio $3:4:5$.

If its perimeter is $36\ cm$ Then what is its area?

    A. $72cm^2$

    B. $67cm^2$

    C. $32cm^2$

D. $54cm^2$

Answer: D

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12. The mean of five numbers is 30. If one number is excluded, their mean becomes 28. The excluded number is

A. 38

B. 35

C. 32

D. 36

Answer: A

13. In $\triangle ABC$, $AB = AC$ and $\angle B = 65°$

then $\angle C$ is equal to

A. $130°$

B. $32°$

C. $70°$

D. $65°$

Answer: D

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14. How many linear equations in x and y can be satisfied by x=1 and y=2 ?

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15. Write the class size of 0-4,5-9, 10-14 Write the class limits in 10.4-11.4, 11.4- 12.4

16. Two parallelograms are on equal bases and between the same parallels.

The ratio of their areas is

17. Show that a median of a triangle divides it into two triangles of equal areas.

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Part A Fill In The Blank

1. An arc is a ___ when its ends are the ends of a diameter.

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1. Find the value of the polynomial $5x - 4x^2 + 3$ at (a) x=0 (b) x=1

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2. Write any two solution of the equation $\pi x + $ y = 9.

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3. If the base of a parallelogram is 8cm and its altitude is 5cm. then find its area?

4. Write the co-efficient of x^2 in each of following

(i) $2 - x^2 + x$

(ii) $\sqrt{2}x - 1$

5. Find the product with out multiplying directly 107×93

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6. The total surface area of a cube is $150 \ sq \ cm$. Find the perimeter of any one of its faces ?

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7. Find the ratio of the total surface area of a sphere and a hemisphere of same radius.

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8. Find the curved surface area of a cone whose height is 12cm and base radius is 5cm ?

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Part C

1. Two coins are tossed simultaneously 500 times, and we get Two heads : 105 times One head : 275 times No head : 120 times Find the probability of occurrence of each of these events.

2. Give the geometric representations of $2x + 9 = 0$ as an equation(i) in one variable (ii) in two variables

3. Construct a triangle ABC in which BC = 8cm,

$\angle B = 45°$ and AB - AC = 3.5 cm.

4. Prove that equal chords of a circle subtend

equal angles at the centre.

5. If the non parallel sides of a trapezium are equal. Prove that it is cyclic.

6. Draw the graph of following linear equation in two variables $x + y = 4$

7. If $x = 3k - 2, y = 2k$ is a solution of equation $4x - 7y + 12 = 0$ then value of k is

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8. ABCD is a rectangle and P, Q, R and S are mid-points of the sides AB, BC, CD and DA respectively. Show that the quadrilateral PQRS is a rhombus.

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9. In $\triangle ABC$, D, E and F are respectively the mid-points of sides AB, BC and CA. Show that $\triangle ABC$ is divided into four congruent triangles by joining D, E and F.

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10. Simplify the following expressions:

$\left(3 + \sqrt{3}\right)\left(2 + \sqrt{2}\right)$ (ii) $\left(5 + \sqrt{7}\right)\left(2 + \sqrt{5}\right)$

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11. The sides of a triangle shaped sheet are 5cm, 12cm and 13cm. Find the cost of painting on the sheet at the rate of Rs 30 per cm^2?

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Part D

1. If $x + y + z = 0$ show that $x^3 + y^3 + z^3 = 3xyz$.

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2. Rationalize the denominator of $\dfrac{5}{\sqrt{3} - \sqrt{5}}$

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3. Express 0.3178 is the form of p/q where p and q are integers

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4. A godwon measures $40m\ x\ 25m\ x\ 10m$. Find the maximum number of wooden crates

each measuring $1.5m$ x $1.25m$ x $0.5m$ that can be stored in the godown.

5. The volume of a right circular cone is $9856\backslash$ cm^3. If the diameter of the base is 28 cm, Find (i) height of the cone (ii) slant height of the cone (iii) curved surface area of the cone