

CLASS VIII (MATHEMATICS)**CHAPTER –1. RATIONAL NUMBERS.**

Put a tick mark(✓) on the correct answer :

Q1.Which of the following numbers is the additive inverse of $\frac{7}{29}$

- (i) $\frac{29}{7}$ (ii) $-\frac{29}{7}$ (iii) $-\frac{7}{29}$ (iv) $\frac{7}{29}$

Q2.Which of the following numbers is the multiplicative inverse of $\frac{15}{31}$

- (i) $\frac{31}{15}$ (ii) $-\frac{31}{15}$ (iii) $-\frac{15}{31}$ (iv) $\frac{15}{31}$

Q3.Which of the following numbers has no multiplicative inverse

- (i) zero (ii) 1 (iii) -1 (iv) none of these

Q4. Which of the following numbers is the product of $\frac{6}{13}$ & $-\frac{26}{3}$

- (i) 1 (ii) -4 (iii) $-\frac{266}{133}$ (iv) $\frac{266}{133}$

Q5.Which of the following numbers is its own reciprocal

- (i) 10 (ii) zero (iii) $\frac{1}{5}$ (iv) 1

Q6.Which of the following numbers is the decimal form of $\frac{1}{4}$

- (i) -0.25 (ii) 2.5 (iii) 0.25 (iv) -2.5

Q7.Which of the following numbers lies in the middle of $\frac{3}{4}$ & $\frac{7}{4}$

- (i) 5.0 (ii) 3.0 (iii) 2.5 (iv) 1.25

Q8.Which pair of following numbers are respectively the additive & multiplicative identities.

- (i) 2 & 0 (ii) 1 & -1 (iii) -1 & 0 (iv) 0 & 1

Q9.Which of the following numbers is the simplest form of $\frac{3}{4} + (-\frac{1}{4}) + (-\frac{5}{4})$

- (i) $\frac{9}{4}$ (ii) $-\frac{3}{4}$ (iii) $-\frac{9}{4}$ (iv) $\frac{7}{4}$

Q10.Which of the following properties indicates the given operation

$$[(\frac{-1}{5}) + (\frac{-3}{5})] + (\frac{1}{7}) = (\frac{-1}{5}) + [(\frac{-3}{5}) + (\frac{1}{7})]$$

- (i) commutative (ii) associative (iii) distributive (iv) none of these

CHAPTER –2. LINEAR EQUATIONS IN ONE VARIABLE

Put a tick mark(✓) on the correct answer :

Q1. If $(x/3) + 1 = (7/15)$ then the value of 'x' is

- (i) $22/5$ (ii) $-8/5$ (iii) $7/5$ (iv) 3

Q2.What is the degree of the equation $x^2 + 2x - 3 = x^2 + 7x - 23$

- (i) zero (ii) one (iii) two (iv) three

Q3.What is the length of the rectangle whose breadth is 10 cm & perimeter 60 cm.

- (i) 15cm (ii) 16cm (iii) 20cm (iv) 25cm

Q4.What should be added to $-3/5$ to get $-7/5$

- (i) $4/5$ (ii) 1 (iii) $-4/5$ (iv) 2

Q5.If x % of 50 is 10 , then the value of 'x' is

- (i) 30 (ii) 15 (iii) 10 (iv) 20

Q6.Two numbers are in the ratio 3: 5. If their sum is 64 , then the numbers are

- (i) 24 & 40 (ii) 15 & 24 (iii) 10 & 24 (iv) 20 & 24

Q7.The sum of the ages of three persons is 100 years. What will be the sum of their ages after 5 years.

- (i) 100yrs. (ii) 115 yrs. (iii) 300 yrs. (iv) 305yrs.

Q8. The sum of three consecutive multiples of '5' is 45. Which is the smallest of the three multiples.

- (i) 10 (ii) 15 (iii) 20 (iv) 25

Q9.If $z/(z + 15) = 4/9$, then the value of 'z' is

- (i) 11 (ii) 12 (iii) 13 (iv) 14

Q10.Sum of two numbers is 95.If one exceeds the other by 15 , then the numbers are

- (i) 25 & 40 (ii) 50 & 65 (iii) 30 & 45 (iv) 40 & 55

CHAPTER –3.UNDERSTANDING QUADRILATERALS.

Put a tick mark(✓) on the correct answer :

Q1.How many diagonals does a convex quadrilateral has ?

- (i)one (ii)two (iii)three (iv)four

Q2.What is the sum of all interior angles of a pentagon ?

- (i) 180° (ii) 360° (iii) 540° (iv) 720°

Q3. How many sides a regular polygon has whose each exterior angle is 45° ?

- (i)eight (ii)seven (iii)six (iv)five

Q4.What is the minimum interior angle possible for a regular polygon?

- (i) 60° (ii) 80° (iii) 120° (iv) 160°

Q5. What is the maximum exterior angle possible for a regular polygon?

- (i) 60° (ii) 80° (iii) 120° (iv) 160°

Q6. What is the perimeter of the parallelogram whose two adjacent sides are 12cm & 7cm?

- (i) 28cm (ii) 38cm (iii) 84cm (iv)168cm

Q7. What is the area of the rectangle whose perimeter is 16 cm & length 5 cm ?

- (i) 3.2cm^2 (ii) 80cm^2 (iii) 15cm^2 (iv) 16cm^2

Q8.In the given parallelogram , find the value of 'x', 'y' & 'z'



Q9.If the two adjacent angles of a parallelogram are equal then each of its angle is ?

- (i) 70° (ii) 80° (iii) 90° (iv) 100°

Q10.If the two diagonals of a rhombus are 8cm & 6cm, its area is ?

- (i) 28cm^2 (ii) 48cm^2 (iii) 14cm^2 (iv) 24cm^2

CHAPTER –4 & 10. PRACTICAL GEOMETRY & VISUALISING SOLID SHAPES

Put a tick mark(✓) on the correct answer :

Q1.What the point of intersection of the medians of a triangle called ?

- (i) circum centre (ii) In centre (iii) centroid (iv) orthocentre

Q2.What the point of intersection of the altitudes of a triangle called ?

- (i) circum centre (ii) In centre (iii) centroid (iv) orthocentre

Q3.What the point of intersection of the side bisectors of a triangle called ?

- (i) circum centre (ii) In centre (iii) centroid (iv) orthocentre

Q4.What the point of intersection of the angle bisectors of a triangle called ?

- (i) circum centre (ii) In centre (iii) centroid (iv) orthocentre

Q5.Which of the following is a three dimensional figure ?

- (i) Square (ii) Trapezium (iii) Cube (iv) Parallelogram

Q6. Find the number of edges of a polyhedron having 20 faces & 12 vertices ?

- (i) 10 (ii) 20 (iii) 25 (iv) 30

Q7. Find the number of faces of a polyhedron having 6 vertices & 12 edges ?

- (i) 8 (ii) 10 (iii) 12 (iv) 14

Q8. Find the number of vertices of a polyhedron having 5 faces & 9 edges ?

- (i) 18 (ii) 12 (iii) 6 (iv) 4

Q9.What the name of the polyhedron is whose base & top are congruent polygons & whose lateral faces are parallelograms in shape ?

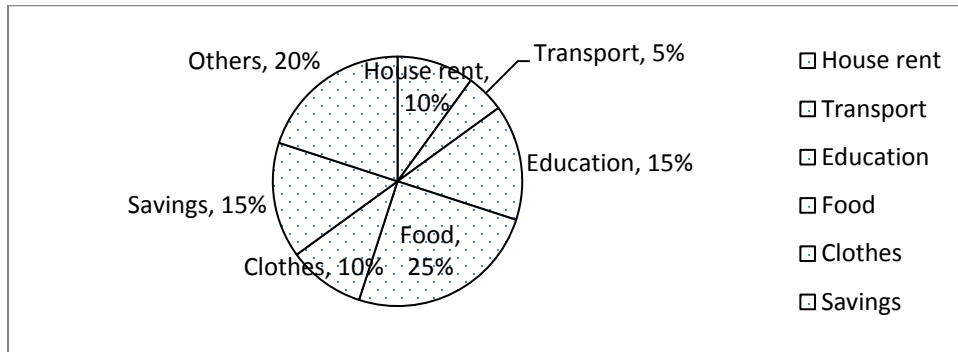
- (i) Tetrahedron (ii) Trapezium (iii) Prism (iv) Parallelogram

Q10.How many faces a tetrahedron has ?

- (i) 14 (ii) 12 (iii) 6 (iv) 4

CHAPTER –5. DATA HANDLING.

Q.1 Adjoining pie chart gives the expenditure (In percentage) on various items & savings of a family during a month. Answer the following questions on the basis of the information given in the pie chart.



(a) On which item, the expenditure is maximum?

- (i) House rent (ii) Food (iii) Others (iv) Education

(b) Expenditure on which item is equal to the total savings of the family?

- (i) House rent (ii) Food (iii) Clothes (iv) Education

(c) If the monthly savings of the family is Rs.3000, what is the monthly expenditure on clothes?

- (i) Rs. 2000 (ii) Rs. 3000 (iii) Rs.1000 (iv) Rs.4000

Q2. What are the possible number of outcomes if a coin is tossed twice?

- (i) one (ii) two (iii) three (iv) four

Q3. What are the possible number of outcomes if a die is tossed once?

- (i) six (ii) five (iii) three (iv) four

Q4. What are the possible number of outcomes if a card is drawn from a pack of 52 cards?

- (i) 20 (ii) 30 (iii) 42 (iv) 52

Q5. What is the probability of getting a king if a card is drawn from a pack of 52 cards?

- (i) $\frac{1}{52}$ (ii) $\frac{2}{52}$ (iii) $\frac{3}{52}$ (iv) $\frac{4}{52}$

Q6. What is the probability of getting a prime number if a die is tossed once?

- (i) $\frac{1}{6}$ (ii) $\frac{2}{6}$ (iii) $\frac{3}{6}$ (iv) $\frac{4}{6}$

CHAPTER –6. SQUARES & SQUARE ROOTS.

Put a tick mark(✓) on the correct answer :

Q1. If a number has '1' or '9' in the unit's place, then its square root ends in which of the following numbers.

- (i) 1 (ii) 4 (iii) 5 (iv) 6

Q2. There are how many non-perfect squares between 100 & 121 ?

- (i) 10 (ii) 15 (iii) 20 (iv) 25

Q3. What will be the unit's digit of 52698^2

- (i) zero (ii) 4 (iii) 5 (iv) 6

Q4. The sum of first 'n' odd natural numbers is given by

- (i) $2n$ (ii) n^2 (iii) $(n + 1)$ (iv) $n^2 + 1$

Q5. Which of the following numbers is not a perfect square ?

- (i) 62500 (ii) 57600 (iii) 90000 (iv) 63147

Q6. Which of the following Pythagorean triplet has the smallest member '8'

- (i) 8,11,14 (ii) 8,10,12 (iii) 8,9,10 (iv) 8,15,17

Q7. Which of the following is the square root of 7056 ?

- (i) 86 (ii) 34 (iii) 54 (iv) 84

Q8. Which of the following numbers by which 9408 must be divided so that the quotient is a Perfect square?

- (i) 4 (ii) 3 (iii) 5 (iv) 6.

Q9. Which of the following square number is divisible by each of the numbers 6, 9, 7, 15 ?

- (i) 400 (ii) 500 (iii) 600 (iv) 900

Q10. Which of the following numbers must be subtracted from 5607 to get a perfect square ?

- (i) 121 (ii) 131 (iii) 141 (iv) 151

CHAPTER –7. CUBES & CUBE ROOTS.

Put a tick mark(✓) on the correct answer :

Q1.Which of the following numbers must be subtracted from 345 to get a perfect cube ?

- (i) 121 (ii) 131 (iii) 2 (iv) 24

Q2.Which of the following numbers is a perfect cube ?

- (i) 343 (ii) 443 (iii) 543 (iv) 643

Q3.Which of the following numbers must be multiplied to 392 to get a perfect cube ?

- (i) 2 (ii) 3 (iii) 4 (iv) 7

Q4. By which of the following numbers 10648 must be divided to get a perfect cube ?

- (i) 2 (ii) 4 (iii) 5 (iv) 7

Q5.What is the volume of a cube whose each side is 4cm ?

- (i) 24cm^3 (ii) 48cm^3 (iii) 64cm^3 (iv) 125cm^3

CHAPTER –8. COMPARING QUANTITIES.

Put a tick mark(✓) on the correct answer :

Q1.Find which of the following represents 3 : 4 ?

- (i) 25% (ii) 40% (iii) 50% (iv) 75%

Q2.If 60% of x is 1200 , then the value of 'x' is

- (i) 1000 (ii) 2000 (iii) 3000 (iv) 4000

Q3.The list price of an article is Rs.220. If it is sold at a discount of 20% , what is its selling price

- (i) 100 (ii) 44 (iii) 176 (iv) 200

Q4. A table marked at Rs.15000 is available for Rs.14400 .Find the discount percent?

- (i) 2% (ii) 4% (iii) 5% (iv) 7%

Q5.The cost price of an article is Rs 500. If it is sold at a profit of 20% , what is its selling price

- (i) Rs. 600 (ii) Rs. 700 (iii) Rs. 400 (iv) Rs. 520

Q6. A man got 10% increase in his salary. If his new salary is 154000 ,find his original salary ?

- (i) Rs.160000 (ii) Rs. 150000 (iii) Rs.140000 (iv) Rs.130000

Q7. Find the compound interest on Rs.12600 for 2 years at 10% per annum compounded annually?

- (i) Rs. 2646 (ii) Rs. 2700 (iii) Rs.3420 (iv) Rs.4526

Q8.Find the rate of sales tax if an article marked at Rs.5000 is sold for Rs.5200 ?

- (i) 3% (ii) 4% (iii) 5% (iv) 7%

CHAPTER –9. ALGEBRAIC EXPRESSIONS AND IDENTITIES.

Put a tick mark(✓) on the correct answer :

Q1.What is the sum of $7xy + 5yz - 3xz$ & $2xy + 4yz + 2xz$?

- (i) $8xy + yz - xz$ (ii) $9xy + 9yz - xz$ (iii) $9xy + 9yz + xz$ (iv) $9xy + 9yz + 5xz$

Q2. What should be subtracted from $2x^2 - 5y^2 + 7z^2$ to get $x^2 - y^2 + z^2$

- (i) $x^2 - 4y^2 + 6z^2$ (ii) $x^2 - 3y^2 + 6z^2$ (iii) $3x^2 - 2y^2 + 2z^2$ (iv) $x^2 - y^2 + z^2$

Q3.What is the product of $3xy$, $4xy$ & $2xz$?

- (i) $24xyz$ (ii) $24x^2yz$ (iii) $24x^3y^2z$ (iv) $24x^3y^2z^2$

Q4.What is the area of the rectangle of length $4xy$ & breadth $2xy$?

- (i) $8xy^2$ (ii) $8x^2y$ (iii) $4x^3y^2z$ (iv) $8x^2y^2$

Q5.What is the volume of the cuboid of length $8xy$, breadth $3xy$ & height xy ?

- (i) $24xy^2$ (ii) $24x^2y$ (iii) $24x^3y^2$ (iv) $24x^3y^3$

Q6. What is the value of the expression $2ab + 3bc + 4ac$, when $a = b = c = 1$?

- (i) 5 (ii) 6 (iii) 7 (iv) 8

Q7. What is the formulae for $(x - y)^2$?

- (i) $x^2 + 2xy + y^2$ (ii) $x^2 - 2xy + y^2$ (iii) $x^2 - 2xy - y^2$ (iv) $x^2 - y^2$

Q8. What is the simplified form of $(a^2 - b^2)^2$?

- (i) $a^4 + 2a^2b^2 + b^4$ (ii) $a^4 - 2a^2b^2 + b^4$ (iii) $a^4 - 2a^2b^2 - b^4$ (iv) $a^4 + a^2b^2 + b^4$

CHAPTER – 11. MENSURATION

Q1.What is the area of a rhombus whose diagonals are of lengths 10cm & 8.2 cm?

- (i) 24cm^2 (ii) 41 cm^2 (iii) 42 cm^2 (iv) 25 cm^2

Q2.What is the area of a trapezium whose two parallel sides are 10 cm & 12cm & height 4cm?

- (i) 42cm^2 (ii) 44 cm^2 (iii) 46 cm^2 (iv) 48 cm^2

Q3.The area of a rhombus is 240 cm^2 . If one of its diagonals is 16 cm ,what the length of its other diagonal is?

- (i) 32cm (ii) 30 cm (iii) 45 cm (iv) 48 cm

Q4.If each side of an equilateral triangle is doubled, then its area becomes how many times?

- (i) 2 (ii) 3 (iii) 4 (iv) 8

Q5.What is the total surface area of a cuboid of dimensions 4cm, 5cm & 6cm ?

- (i) 142cm^2 (ii) 144 cm^2 (iii) 146 cm^2 (iv) 148 cm^2

Q6.What is the lateral surface area of a cube of side 5cm?

- (i) 150cm^2 (ii) 100 cm^2 (iii) 140 cm^2 (iv) 130 cm^2

Q7.What is the volume of a cuboid whose dimensions are 5cm x 3cm x 2cm ?

- (i) 24cm^3 (ii) 20 cm^3 (iii) 30 cm^3 (iv) 17 cm^3

Q8.What is the volume of a sphere whose radius is 3cm ?

- (i) $24\pi\text{cm}^3$ (ii) $36\pi\text{ cm}^3$ (iii) $30\pi\text{ cm}^3$ (iv) $27\pi\text{ cm}^3$

Q9.What is the curved surface area of a cone of radius 3cm & height 4 cm?

- (i) $14\pi\text{cm}^2$ (ii) $15\pi\text{ cm}^2$ (iii) $16\pi\text{ cm}^2$ (iv) $17\pi\text{ cm}^2$

Q10. If the height of a cylinder is halved, its volume becomes how many times?

- (i) $1/2$ (ii) $1/3$ (iii) 2 (iv) 3

CHAPTER – 12. EXPONENTS & POWERS.

Q1. Which of the following is the multiplicative inverse of $(3 \times 4)^{-2}$

- (i) 12 (ii) $1/144$ (iii) 144 (iv) $1/12$

Q2. What is the value of 'm' if $(-2)^2 \times (-5)^3 = 50m$?

- (i) 10 (ii) -10 (iii) 100 (iv) -100

Q3. What is the scientific notation of 0.0023 ?

- (i) 2.3×10^{-3} (ii) 23×10^{-3} (iii) 2.3×10^3 (iv) 23×10^3

Q4. What is the usual form of 7.54×10^{-3} ?

- (i) 0.0754 (ii) 0.00754 (iii) 0.000754 (iv) 0.0000754

Q5. What is the value of $(3^0 + 4^0 + 5^0)$?

- (i) 7 (ii) -7 (iii) 3 (iv) -3

CHAPTER – 13. DIRECT & INVERSE PROPORTIONS.

Q1. An electric pole, 14 metres high, casts a shadow of 10 metres. What will be the height of a tree that casts a shadow of 15 metres under similar conditions?

- (i) 14 m (ii) 20 m (iii) 21 m (iv) 24 m

Q2. A train is running at a speed of 75 km/hr. What distance will it cover in 20 minutes?

- (i) 15 km (ii) 20 km (iii) 23 km (iv) 25 km

Q3. A machine manufactures 840 bottles in six hours. Find the number of bottles it can manufacture in five hours?

- (i) 600 (ii) 650 (iii) 700 (iv) 750

Q4. The scale of a map is given as 1:30000000. If two cities are 4 cm apart on the map, what is the actual distance between them?

- (i) 600 km (ii) 1400 km (iii) 1300 km (iv) 1200 km

Q5. If 15 workers can build a wall in 48 hours, how many workers will be required to do the same work in 30 hours?

- (i) 15 (ii) 14 (iii) 24 (iv) 30

Q6. A car takes 2 hours to reach a destination by running at a speed of 60 km/hr. How long will it take when the car runs at a speed of 80 km/hr?

- (i) 1.5 Hrs. (ii) 1.4 Hrs. (iii) 2.4 Hrs. (iv) 2.5 Hrs.

Q7. 6 pipes are required to fill a tank in 1 hr 20 minutes. How long will it take if only 5 pipes of the same type are used?

- (i) 2 hr 36 minutes. (ii) 1 hr 36 minutes. (iii) 2 hours. (iv) 1 hr 30 minutes.

Q8. If 5 people can do a piece of work in 20 days, how many people can do the same work in 2 days?

- (i) 8 (ii) 50 (iii) 100 (iv) 200

CHAPTER – 14. FACTORISATION.

Q1.What is the HCF of $2x^2y$ & $3xy^2$?

- (i) $6xy$ (ii) $6x^2y^2$ (iii) xy (iv) x^2y^2

Q2. Which of the following is a factor of $6xy - 4y + 6 - 9x$?

- (i) $2x + y$ (ii) $x - y$ (iii) $2x - 3$ (iv) $3x - 2$

Q3. Which of the following is a factor of $y^2 - 7y + 12$?

- (i) $2y + 3$ (ii) $y + 3$ (iii) $y - 3$ (iv) $2y - 2$

Q 4.Which of the following is a factor of $m^4 - 256$?

- (i) $m + 4$ (ii) $m^2 + 4$ (iii) $m^2 - 4$ (iv) $m + 16$

Q 4.Which of the following is a factor of $z^2 - 4z - 12$?

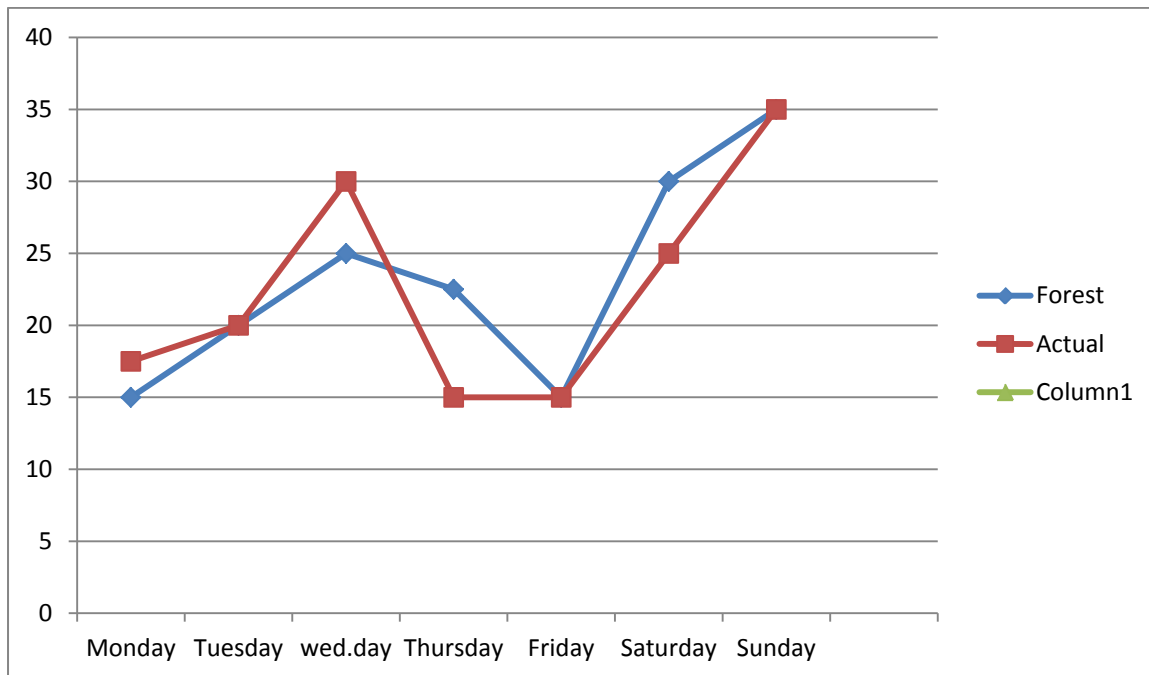
- (i) $z + 6$ (ii) $z - 6$ (iii) $z^2 - 12$ (iv) $z + 2$

Q5.What is the value of $2x - 3y + 4z$ at $x=2, y = 0$ & $z =1$

- (i) 4 (ii) 6 (iii) 8 (iv) 10

CHAPTER – 14 INTRODUCTION TO GRAPHS.

The following graph shows the temperature forecast & the actual temperature for each day of a week. On the basis of the graph , answer the following questions .



Q1. On which days was the forecast temperature the same as the actual temperature ?

(i) Mon day, Tuesday

(ii) Tuesday, Friday ,Sunday

(i) Mon day, Tuesday, Wed. day

(ii) Tuesday, Saturday ,Sunday

Q2. What was the maximum forecast temperature during the week ?

(i) 35°C

(i) 45°C

(i) 30°C

(i) 15°C

Q3. What was the minimum forecast temperature during the week ?

(i) 35°C

(i) 25°C

(i) 30°C

(i) 15°C

Q4. On which days did the actual temperature differ the most from the forecast temperature ?

(i) Mon day

(ii) Tuesday

(iii) Wed. day

(iv) Thursday

CHAPTER – 15. PLAYING WITH NUMBERS.

Q1. Find the value of 'A' & 'B' from the following ?

$$\begin{array}{r}
 3 \quad A \\
 + \quad 2 \quad 5 \\
 \hline
 B \quad 2
 \end{array}$$

- (i) 2 & 3 (ii) 7 & 6 (iii) 8 & 6 (iv) 1 & 7

Q2. Find the value of 'A' & 'B' from the following ?

$$\begin{array}{r}
 A \quad B \\
 X \quad 6 \\
 \hline
 B \quad B \quad B
 \end{array}$$

- (i) 7 & 4 (ii) 7 & 2 (iii) 2 & 6 (iv) 4 & 7

Q2. Find the value of 'A' & 'B' from the following ?

$$\begin{array}{r}
 1 \quad 2 \quad A \\
 + \quad 6 \quad A \quad B \\
 \hline
 A \quad 0 \quad 9
 \end{array}$$

- (i) 3 & 4 (ii) 5 & 2 (iii) 8 & 1 (iv) 4 & 8

Q3. If the three digit number 24x is divisible by '9', what is the value of 'x'?

- (i) 3 (ii) 5 (iii) 8 (iv) 4

Q4. If 21z5 is a multiple of '9', where 'z' is a digit, find the value of 'z' ?

- (i) 2 (ii) 3 (iii) 8 (iv) 1