Multiple Choice Questions (MCQs)

CLASS: VIII

SUBJECT: MATHS

Chapter - 1

Question 1) Which of the following is a positive rational number –

(a) $\frac{-2}{3}$ (b) $\frac{5}{-7}$ (c) $-2\frac{3}{5}$ (d) $\frac{-4}{-5}$

Question 2) All rational number lying to the left of 0 are

(a) Negative (b) Positive (c) both (a) & (b) (d) Neither (a) or (b)

Question 3) If $\frac{p}{q}$ lies to the right of $\frac{r}{s}$, then

(a) $\frac{r}{s} < \frac{p}{q}$ (b) $\frac{p}{q} < \frac{r}{s}$ (c) $\frac{p}{q} = \frac{r}{s}$ (d) none of these

Question 4) If $\frac{a}{b}$ & $\frac{c}{d}$ are two rational numbers then closure property of addition satisfies :

(a) $\frac{a}{b}+\frac{c}{d}=\frac{c}{d}+\frac{a}{b}$ (b) $\frac{a}{b}+\frac{c}{d}$ is a rational number

(c) $\frac{a}{b} \times \frac{c}{d}$ is a rational number (d) None of these

Question 5) Additive inverse of $\frac{5}{8}$ is :

(a) $\frac{8}{5}$ (b) $\frac{-8}{5}$ (c) $\frac{-5}{8}$ (d) 0

Question 6) Additive inverse of $\frac{-3}{2}$ is

(a) $\frac{3}{2}$ (b) $\frac{2}{3}$ (c) $\frac{-2}{3}$ (d) none of these

Question 7) $\frac{4}{5} \times 0$ is equal to :

(a) $\frac{4}{5}$ (b) $\frac{5}{4}$ (c) $\frac{-5}{4}$ (d) 0

Question 8) $\frac{a}{b} \times \left(\frac{c}{d}+\frac{e}{b}\right)$ shows :

(a) Distributive Property of Multiplication over Addition
(b) Distributive Property of Multiplication over Subtraction
(c) Commutative property of Multiplication
(d) Commutative Property of Addition

Question 9) The multiplicative inverse of 8 is

(a) - 8 (b) $\frac{-1}{8}$ (c) $\frac{1}{8}$ (d) $\frac{8}{1}$

Question 10) Value of $\left(\frac{-7}{3}\right)$ is

(a) $\frac{7}{3}$ (b) $\frac{-7}{3}$ (c) $\frac{7}{-3}$ (d) $\frac{-7}{0}$

Question 11) The multiplicative inverse of – 15 is

(a) 15 (b) $\frac{1}{-15}$ (c) $\frac{1}{15}$ (d) 0

Question 12) $\frac{-32}{56}$ expressed as a rational number with numerator 4 is

(a) $\frac{4}{7}$ (b) $\frac{4}{14}$ (c) $\frac{4}{-7}$ (d) $\frac{4}{-14}$

Question 13) $\frac{4}{8}$ expressed as a rational number with denominator 24 is

(a) $\frac{16}{32}$ (b) $\frac{16}{40}$ (c) $\frac{12}{24}$ (d) $\frac{8}{24}$

Question 14) $\frac{3}{9}$ can be expressed as :

(a) $\frac{1}{3}$ (b) $\frac{6}{24}$ (c) $\frac{2}{3}$ (d) $\frac{3}{6}$

Question 15) If $\frac{a}{b} + \frac{c}{d} = \frac{c}{d} + \frac{a}{b}$, state which property is utilised :

(a) Commutative property of addition
(b) Commutative property of multiplication
(c) Commutative property of subtraction
(d) None of these

Question 16) Multiplicative Inverse of $\frac{a}{b}$ is

(a) $\frac{-a}{b}$ (b) $\frac{b}{a}$ (c) $\frac{-b}{a}$ (d) 1

Question 17) Which of the following is not commutative for rational numbers :

Addition (b) Subtraction (c) Multiplication (d) None of these

Question 18) The additive inverse of $\frac{-11}{-15}$ is

(a) $\frac{15}{11}$ (b) $\frac{-15}{-11}$ (c) $\frac{-15}{11}$ (d) $\frac{-11}{15}$

Question 19) Closure property for rational numbers is satisfied for :

(a) Multiplication (b) Addition (c) Subtraction (d) All of these

Question 20) Value of $\left|\frac{-14}{33}\right|$ is

(a) $\frac{14}{-33}$ (b) $\frac{-14}{33}$ (c) $\frac{14}{33}$ (d) 0

Question 21) Which symbol will be filled $\left(\frac{-1}{2}\right) \ldots \left(\frac{-3}{5}\right)$

(a) < (b) > (c) = (d) None of these

Question 22) Which symbol will be filled $\left[0 \ldots \left(\frac{-5}{18}\right)\right]$

(a) > (b) < (c) = (d) None of these

Question 23) Which symbol will be filed $\left[\frac{4}{16} \ldots\ldots \frac{10}{40}\right]$

(a) < (b) > (c) = (d) None of these

Question 24) Fill in the blanks :

$\frac{-19}{40} \times \frac{8}{11} = \frac{8}{11} \times$ .....

(a) $\frac{-19}{40}$ (b) $\frac{19}{40}$ (c) $\frac{40}{19}$ (d) $\frac{-40}{19}$

Question 25) $\frac{2}{9} \times \left(\frac{-4}{9} + \frac{6}{17}\right) = \frac{2}{9} \times$ ..... + ... $\times \frac{6}{17}$

(a) $\frac{6}{17}$, $\frac{-4}{9}$ (b) $\frac{-6}{17}$, $\frac{4}{9}$ (c) $\frac{-4}{9}$, $\frac{2}{9}$ (d) $\frac{4}{9}$, $\frac{-6}{17}$

Chapter – 2

Question 1) 3^{-2} can be written as

(a) 32 (b) $\frac{1}{3^2}$ (c) $\frac{1}{3^{-2}}$ (d) $\frac{-2}{3}$

Question 2) The value of $\frac{1}{4^{-2}}$ is

(a) 16 (b) 8 (c) $\frac{1}{16}$ (d) $\frac{1}{8}$

Question 3) The Value of $3^5 - 3^{-6}$ is

(a) 3^5 (b) 3^{-6} (c) 3^{11} (d) 3^{-11}

Question 4) The value of $\left(\frac{2}{5}\right)^{-2}$ is

(a) $\frac{4}{5}$ (b) $\frac{4}{25}$ (c) $\frac{25}{4}$ (d) $\frac{5}{2}$

Question 5) The reciprocal of $\left(\frac{2}{5}\right)^{-1}$ is

(a) $\frac{2}{5}$ (b) $\frac{5}{2}$ (c) $\frac{-5}{2}$ (d) $\frac{-2}{5}$

Question 6) The multiplicative inverse of 10^{-100} is

(a) 10 (b) 100 (c) 10^{100} (d) 10^{-100}

Question 7) The Value of $(-2)^{2\times3-1}$ is

(a) -32 (b) 64 (c) $\frac{-16}{81}$ (d) $\frac{81}{-16}$

Question 8) The multiplicative inverse of $\left(\frac{-5}{9}\right)^{-99}$ is

(a) $\left(\frac{-5}{9}\right)$ (b) $\left(\frac{-5}{9}\right)^{99}$ (c) $\left(\frac{9}{-5}\right)^{99}$ (d) $\left(\frac{9}{5}\right)^{99}$

Question 9) If x be any non- zero integer and m, n be negative integers, then $x^m \times x^n$ is equal to

(a) x^m (b) x^{m+n} (c) x^n (d) x^{m-n}

Question 10) If y be any non- zero integer, then y^0 is equal to

(a) 1 (b) 0 (c) -1 (d) not defined

Question 11) If x be any non- zero integer, then x^{-1} is

(a) x (b) $\frac{1}{x}$ (c) -x (d) $\frac{-1}{x}$

Question 12) If x be any integer different from zero and m be any positive integer then x^{-m} is equal to

(a) x^m (b) $-x^m$ (c) $\frac{1}{x^m}$ (d) $\frac{-1}{x^m}$

Question 13) If x be any integer different form zero and m, n be any integers, then $(x^m)^n$ is equal to

(a) x (b) x^{mn} (c) $x^{m/n}$ (d) x^{m-n}

Question 14) Which of the following is equal to $\left(\frac{-3}{4}\right)^{-3}$

(a) $\left(\frac{3}{4}\right)^{-3}$ (b) $-\left(\frac{3}{4}\right)^{-3}$ (c) $\left(\frac{4}{3}\right)^{3}$ (d) $\left(\frac{-4}{3}\right)^{3}$

Question 15) $\left(\frac{-5}{7}\right)^{-5}$ is equal to

(a) $\left(\frac{5}{7}\right)^{-5}$ (b) $\left(\frac{5}{7}\right)^{5}$ (c) $\left(\frac{7}{5}\right)^{5}$ (d) $\left(\frac{-7}{5}\right)^{5}$

Question 16) $\left(\frac{-7}{5}\right)^{-1}$ is equal to

(a) $\frac{5}{7}$ (b) $\frac{-5}{7}$ (c) $\frac{7}{5}$ (d) $\frac{-7}{5}$

Question 17) $(-9)^3 \div (-9)^8$ is equal to

(a) $(9)^5$ (b) $(9)^{-5}$ (c) $(-9)^5$ (d) $(-9)^{-5}$

Question 18) For a non-zero integer x, $x^7 \div x^{12}$ is equal to

(a) x^{-5} (b) x^{12} (c) x^{64} (d) x^{-64}

Question 19) The value of $(7^{-1}\text{-}8^{-1})^{-1} - (3^{-1} - 4^{-1})^{-1}$ is

(a) 44 (b) 56 (c) 68 (d) 12

Question 20) $\left(\frac{1}{10}\right)^0$ is equal to

(a) 0 (b) $\frac{1}{10}$ (c) 1 (d) 10

Question 21) $\left(\frac{3}{4}\right)^5 \div \left(\frac{5}{3}\right)^5$ is equal to

(a) $\left(\frac{3}{4} \div \frac{5}{3}\right)^5$ (b) $\left(\frac{3}{4} \div \frac{5}{3}\right)^1$ (c) $\left(\frac{3}{4} \div \frac{5}{3}\right)^0$ (d) $\left(\frac{3}{4} \div \frac{5}{3}\right)^{10}$

Question 22) For any two non- zero rational numbers x & y , $x^4 \div y^4$ is equal to
(a) $(x \div y)^0$ (b) $(x \div y)^1$ (c) $(x \div y)^4$ (d) $(x \div y)^8$

Question 23) For a non- zero rational number p, $p^{13} \div p^8$ is equal to
(a) p^5 (b) p^{21} (c) p^{-5} (d) p^{-19}

Question 24) The standard form of 234000000 is
(a) 2.34×10^8 (b) 0.234×10^9 (c) 2.34×10^{-8} (d) 0.234×10^{-9}

Question 25) Which of the following is not the reciprocal of $\left(\frac{2}{3}\right)^4$
(a) $\left(\frac{3}{2}\right)^4$ (b) $\left(\frac{3}{2}\right)^{-4}$ (c) $\left(\frac{2}{3}\right)^{-4}$ (d) $\frac{3^4}{2^2}$

Chapter – 3

Question 1) Find the square root of 3249
(a) 57 (b) 27 (c) 53 (d) 43

Question 2) Find the smallest number by which 180 must be multiplied so that it becomes a perfect square.
(a) 2 (b) 3 (c) 5 (d) 10

Question 3) The square of 25 is
(a) 5 (b) 625 (c) 125 (d) 175

Question 4) The value of $\sqrt{10^2 - 6^2}$ is
(a) 64 (b) 100 (c) 8 (d) 36

Question 5) If $\frac{52}{x} = \sqrt{\frac{169}{289}}$, the value of x is
(a) 62 (b) 58 (c) 52 (d) 68

Question 6) Find $\sqrt{41-\sqrt{21+\sqrt{19-\sqrt{9}}}}$
(a) 3 (b) 4 (c) 6 (d) 9

Question 7) The least Number which must be subtracted from 1385 to make it a perfect square
(a) 37 (b) 16 (c) 67 (d) 1369

Question 8) Find the greatest number of three digits that is a perfect square :
(a) 999 (b) 981 (c) 961 (d) 1024

Question 9) The square root of 1585081 is
(a) 1259 (b) 2159 (c) 1251 (d) 1291

Question 10) Which of the following is the closest to $\sqrt{3}$
(a) $\frac{9}{5}$ (b) 2 (c) $\frac{173}{100}$ (d) 1.69

Question 11) Find the least number which must be added to 1000 to make it perfect square
(a) 22 (b) 32 (c) 42 (d) 24

Question 12) The square root of 0.0196 is
(a) 0.16 (b) 0.26 (c) 0.12 (d) 0.14

Question 13) Square of 4 is
(a) 16 (b) 2 (c) 0.4 (d) 1.6

Question 14) The value of $\left(-\frac{9}{16}\right) \times \left(\sqrt{\frac{64}{81}}\right)$ is
(a) $\frac{3}{2}$ (b) $\frac{-3}{2}$ (c) $\frac{-2}{3}$ (d) $\frac{-1}{18}$

Question 15) The square of 1.1 is
(a) 11 (b) 121 (c) 12.1 (d) 1.21

Question 16) The smallest number which must be multiplied to 175 to make it perfect square is
(a) 7 (b) 9 (c) 11 (d) 5

Question 17) The smallest number by which 325 is multiplied to make it perfect square is
(a) 15 (b) 11 (c) 13 (d) 9

Question 18) The smallest number by which 2700 is divided to make it perfect square is
(a) 5 (b) 2 (c) 3 (d) 9

Question 19) The smallest number by which 5488 is divided to make it perfect square is
(a) 5 (b) 4 (c) 6 (d) 7

Question 20) The value of $\sqrt{64 + \sqrt{36}}$
(a) 10 (b) $\sqrt{70}$ (c) $\sqrt{80}$ (d) 8

Question 21) Square root of 71824 is
(a) 328 (b) 424 (c) 268 (d) 258

Question 22) Square Root of 16 is
(a) 256 (b) 4 (c) 24 (d) 2 – 56

Question 23) Square of 12 is
(a) $\sqrt{12}$ (b) $\sqrt[4]{3}$ (c) 144 (d) None of these

Question 24) The value of $\frac{\sqrt{0.0032}}{\sqrt{0.32}}$ is
(a) 0.0001 (b) 0.001 (c) 0.01 (d) 0.1

Question 25) The value of $\sqrt{16 + \sqrt{81}}$ is
(a) 4 (b) 9 (c) 16 $\sqrt{81}$ (d) 5

Chapter – 4

Question 1) The cube root of 216 is
(a) 36 (b) 6 (c) 18 (d) 12

Question 2) The cube of 8 is
(a) 2 (b) 512 (c) 4 (d) 64

Question 3) $\sqrt[3]{64}$ =
(a) 8 (b) 16 (c) 4 (d) 4096

Question 4) _____ is a perfect cube
(a) 1080 (b) 625 (c) 100 (d) 27

Question 5) The digit at unit's place of the cube of a number having 2 at units place is
(a) 2 (b) 4 (c) 8 (d) 6

Question 6) The digit at unit's place of the cube of a number having 3 at unit's place is
(a) 3 (b) 9 (c) 6 (d) 7

Question 7) Last _____ digits of the cube of a number 0 at unit place are zeros
(a) six (b) three (c) two (d) four

Question 8) The digit at units place of the cube root of 6659 is
(a) 3 (b) 1 (c) 9 (d) 7

Question 9) The digit at units place of the cube root of 2197 is
(a) 3 (b) 9 (c) 7 (d) 6

Question 10) The cube root of 8000 is
(a) 4000 (b) 200 (c) 2000 (d) 20

Question 11) 20^3 =
(a) 60 (b) 400 (c) 800 (d) 8000

Question 12) $\sqrt[3]{27000}$ =
(a) 300 (b) 30 (c) 3000 (d) 900

Question 13) Cube of – 3 is
(a) – 9 (b) – 27 (c) 9 (d) 27

Question 14) $\sqrt[3]{64}$ =
(a) 2 (b) 4 (c) 8 (d) 6

Question 15) $\sqrt[3]{27} \times \sqrt[3]{64}$ =
(a) 72 (b) 24 (c) 12 (d) – 24

Question 16) $\sqrt[3]{\frac{-27}{1331}}$ =
(a) $\frac{3}{11}$ (b) $\frac{-3}{11}$ (c) $\left(\frac{3}{11}\right)^2$ (d) $\left(\frac{-3}{11}\right)^2$

Question 17) 85184 is the cube root of
(a) 24 (b) 34 (c) 44 (d) 64

Question 18) The smallest number by which 675 must be multiplied to make it a perfect cube is
(a) 3 (b) 5 (c) 15 (d) 7

Question 19) The value of $\sqrt[3]{64 + 936}$
(a) 100 (b) 10 (c) 1000 (d) 1

Question 20) Which of the following is the cube of an odd number
(a) 2744 (b) 12167 (c) 8000 (d) 32768

Question 21) What is the smallest number by which 1080 must be divided to get the perfect cube.
(a) 2 (b) 3 (c) 5 (d) 15

Question 22) Cube root of 3375 is
(a) 25 (b) 35 (c) 15 (d) 45

Question 23) Cube of -15 is
(a) -3375 (b) -625 (c) 625 (d) 3375

Question 24) Value of $\sqrt[3]{1.331}$ is
(a) 11 (b) $\frac{11}{10}$ (c) 0.11 (d) 110

Question 25) The value of $\sqrt[3]{9261}$ is
(a) 21 (b) 31 (c) 11 (d) 101

Chapter – 5

Question 1) Generalised form of a four- digit number abdc is
(a) 1000a + 100b + 10c + d (b) 1000a + 100c + 10b + d
(c) 1000a + 100b + 10d + c (d) a × b × c × d

Question 2) Generalised form of a two- digit number xy is
(a) x – y (b) 10x + y (c) 10x – y (d) 10y + x

Question 3) The usual form of 1000a + 10b + c is
(a) abc (b) abco (c) aobc (d) aboc

Question 4) Let abc be a three- digit number then abc – cba is not divisible by
(a) 9 (b) 11 (c) 18 (d) 33

Question 5) The sum of all numbers formed by the digits x, y and z of the number xyz is divisible by
(a) 11 (b) 33 (c) 37 (d) 74

Question 6) A four- digit number aabb is divisible by 55. Then possible value (s) of b is / are
(a) 0 & 2 (b) 2 & 5 (c) 0 & 5 (d) 7

Question 7) Let abc be a 3 digit number. Then abc + bca + cab is not divisible by
(a) a+b+c (b) 3 (c) 37 (d) 9

Question 8) A four digit number 4ab5 is divisible by 55. Then the value of b-a is
(a) 0 (b) 1 (c) 4 (d) 5

Question 9) If abc is a 3-digit number then the number abc – a-b-c is divisible by
(a) 9 (b) 90 (c) 10 (d) 11

Question 10) A 6-digit number is formed by repeating a 3-digit number for example 256256, 678678 etc. Any number of this form is divisible by.
(a) 7 only (b) 11 only (c) 13 only (d) 1001

Question 11) If the sum of digits of a number is divisible by 3, then the number is always divisible by
(a) 2 (b) 3 (c) 6 (d) 9

Question 12) x + y + z = 6 and z is an odd digit, then the 3-digit number xyz is
(a) an odd multiple of 3 (b) odd multiple of 6 (c) Even multiple of 3 (d) even multiple of 9

Question 13) If
$$\begin{array}{r} 5\ \ A \\ +\ B\ \ 3 \\ \hline 6\ \ 5 \end{array}$$
, then value of A & B
(a) A = 2 B = 3 (b) A = 3, B = 2 (c) A = 2, B = 1 (d) A = 1, B = 2

Question 14) If
$$\begin{array}{r} A\ \ 3 \\ +\ 8\ \ B \\ \hline 15\ \ 0 \end{array}$$
, then A + B is
(a) 13 (b) 12 (c) 17 (d) 15

Question 15) If
$$\begin{array}{r} 5\ \ A \\ \times\ \ \ 3 \\ \hline 3\ 9\ \ 9 \end{array}$$
, then A is
(a) 3 (b) 6 (c) 7 (d) 9

Chapter – 6

Question 1) Set of natural numbers are
(a) N = {1, 2, 3, ……..} (b) W = {0, 1, 2, 3, ……} (c) Z = {-2, -1, 0, 1, 2 ….} (d) None of these

Question 2) Set of whole number is
(a) P = {2, 3, 5, 7 …..} (b) W = {0, 1, 2, 3, ……} (c) E = {0, 2, 4, …..} (d) None of these

Question 3) Set of integers
(a) Z = {….-2,-1,0,1,2….} (b) O = {1, 3, 5, …..} (c) E = {0, 2, 4, ……} (d) None of these

Question 4) Set of prime numbers
(a) N = {1, 2, 3, ……} (b) P = {2, 3, 5, 7, ……} (c) Z = {……..-2,-1,0,1,2 ….} (d) None of these

Question 5) If A is a set which is equal to {1, 2, 3} then the set of all the subsets of A is called the
(a) Power set of A (b) Empty Set (c) Universal Set (d) Empty Set

Question 6) The power set of an empty set is not empty. It consists of one element
(a) ∅ (b) { ∅ } (c) { 1 } (d) 0

Question 7) The power set of an empty set is not empty. It consists of …….. Element.
(a) 3 (b) 2 (c) 1 (d) 0

Question 8) Let A = {0, 1}, then n (A) =
(a) 1 (b) 2 (c) 0 (d) 3

Question 9) Let B = {months of the year}, then n (B) =
(a) {January….December} (b) 12 (c) 8 (d) 5

Question 10) Let C= {B, 0, K }, then n (C) =
(a) 1 (b) 2 (c) 3 (d) 4

Question 11) If two sets have same number of elements, they are
(a) equal sets (b) equivalent sets (c) disjoint sets (d) None of these

Question 12) If two sets have no common elements, they are.
(a) equal sets (b) equivalent sets (c) disjoint sets (d) empty sets

Question 13) Null set is the name of
(a) empty set (b) equal set (c) singleton set (d) none of these

Question 14) When one set is entirely contained in another set, it called its
(a) subset (b) universal set (c) both a & b (d) None of these

Question 15) A union B is written as
(a) A ∩ B (b) A ∪ B (c) A C B (d) A $\underline{C}$ B

Question 16) A intersection B is written as
(a) A ∪ B (b) A C B (c) A $\underline{C}$ B (d) A ∩ B

Question 17) If ξ = {1, 2, …….. 10} & A = {1, 2, 3, 4, 5} then A' will be
(a) {1, 2, 3, 4, 5} (b) {0, 1, 2, 3, 4, 5} (c) { } (d) {6, 7, 8, 9, 10}

Question 18) If A = {1, 2, 3} B = {3, 5, 6} then A ∪ B is
(a) {1, 2, 3, 5} (b) {5, 6} (c) {1, 2, 3, 5, 6} (d) None of these

Question 19) If A = {4, 5, 6} & B = {6, 7, 8} then A ∩ B is
(a) { 4 } (b) {4, 5} (c) { 6 } (d) { }

Question 20) If A = {1, 3, 5, 7} & B = {2, 4, 6, 8} then A ∩ B is
(a) {1, 3, 5, 7} (b) 0 (c) ∅ (d) None

Question 21) A ∪ B is equal to
(a) B ∪ A (b) B ∪ C (c) C U B (d) None

Question 22) A ∩ B is equal to
(a) B ∩ A (b) B C A (c) A C B (d) None

Question 23) (A ∩ B) ∩ C = A ∩ (B ∩ C) states
(a) commutative law (b) closure law (c) associative (d) None

Question 24) If A = {2, 3} & B = {1, 2, 3, 4, 5}, then
(a) A C B (b) B C A (c) B C A (d) None

Question 25) A = {1, 2, 3} B = {6, 7, 8} then A & B are
(a) equal sets (b) equivalent sets (c) disjoint sets (d) None of these

Chapter – 7

Question 1) On what a discount is calculated
(a) S.P (b) M.P. (c) C.P. (d) None of these

Question 2) On which figure the VAT of a product is calculated
(a) S.P (b) C.P (c) M.P (d) None of these

Question 3) On which of the following percent profit or profit loss is calculated ?
(a) S.P (b) C.P (c) M.P (d) None of these

Question 4) If an article sold for Rs.100 then there is a gain of Rs.20, which of the following is the gain percent ?
(a) 25% (b) 22% (c) 20% (d) 16%

Question 5) An article is at 10% more than the CP. If discount of 10% is allowed then which of the following is right
(a) 1% gain (b) 1% loss (c) no gain o loss (d) 1.1% loss

Question 6) A building worth Rs.P is depreciated by R% per annum. Which of the following is true.
(a) P $[1 - \frac{R}{100}]$ (b) P $[1+\frac{R}{100}]$
(c) P $\{(1 + \frac{R}{100}) - 1]$ (d) P $[1 - (1 - \frac{R}{100}]$

Question 7) If MP of a box is Rs.10 and a discount of 10% is allowed then what should be the sale price
(a) Rs.10 (b) Rs.9 (c) Rs.11 (d) None of these

Question 8) What should be the rate of interest per annum if interest is calculated quarterly ?
(a) reduced to half (b) reduced to one fourth (c) is doubled (d) becomes four times

Question 9) What time period is taken when interest is calculated half- yearly ?
(a) twice as much as the number of given years
(b) half as much as the number of given years
(c) same as the number of given years
(d) None of these

Question 10) What should be percentage gain on a product when it is sold for Rs.120 with a gain of Rs.20.
(a) 20% (b) 25% (c) 22% (d) 16.25%

Question 11) If 80% of x is 256, then value of x
(a) 350 (b) 300 (c) 320 (d) 400

Question 12) 22% of [80 – 15% of 200] =
(a) 220 (b) 11 (c) 44 (d) 18

Question 13) What percent of $\sqrt{0.0144}$ is 0.0108
(a) 0.9 (b) 0.1 (c) 9 (d) 0.09

Question 14) The ratio of salary of a works in April to that in March was $2\frac{1}{2}$ $2\frac{1}{4}$. By what % was the salary in April More than the salary in March.
(a) $10\frac{1}{9}$ % (b) $12\frac{1}{9}$ % (c) $11\frac{1}{9}$ % (d) None of these

Question 15) 12% of Rs.600 =
(a) 50 (b) 58 (c) 72 (d) 68

Question 16) $33\frac{1}{3}$ % of 2400 people =
(a) 800 (b) 7200 (c) 2400 (d) 1600

Question 17) 48% of 1 litre
(a) 240ml (b) 360ml (c) 800ml (d) 480ml

Question 18) $7\frac{1}{7}$ % of 3kg 500g
(a) 350g (b) 100g (c) 250g (d) 3500g

Question 19) Increase Rs.90 by 18% =
(a) 106.20 (b) Rs.16.80 (c) 108.30 (d) None

Question 20) Express 15kg as a percent of 75kg
(a) 25% (b) 30% (c) 35% (d) 20%

Question 21) Fraction of 15% =
(a) $\frac{15}{100}$ (b) $\frac{5}{20}$ (c) $\frac{5}{25}$ (d) None

Question 22) Per cent means
(a) Per hundred (b) Per thousand (c) Per ten (d) Per zero

Question 23) 25% as fraction
(a) $\frac{3}{5}$ (b) $\frac{5}{20}$ (c) $\frac{5}{25}$ (d) $\frac{25}{75}$

Question 24) Rs.25 of Rs.100 are
(a) 10% (b) 20% (c) 25% (d) 30%

Question 25) Rs.115 to Rs.100, decrease =
(a) $\frac{15}{115}$ × 100% (b) $\frac{15}{100}$ × 100% (c) $\frac{15}{100}$ × 115% (d) None

Chapter – 12

Question 1) Monomial contains :
(a) One term (b) 2 terms (c) 3 terms (d) None

Question 2) Binomial contains
(a) One term (b) 2 terms (c) 3 terms (d) None

Question 3) Trinomial contains
(a) One term (b) 2 terms (c) 3 terms (d) None

Question 4) In $8x^2y^2$ what is numerical coefficient
(a) 8 (b) x^2 (c) 1 (d) x^2y^2

Question 5) In $\frac{-2}{3}$ yz what is literal coefficient
(a) $\frac{-2}{3}$ (b) y (c) z (d) yz

Question 6) In x what is numerical coefficient
(a) 1 (b) x (c) 0 (d) None

Question 7) The degree of 9x – 19 is
(a) two (b) three (c) one (d) four

Question 8) No. of terms in $3x^2 – 5x + 2$
(a) 5 (b) 3 (c) 2 (d) one

Question 9) No. of terms in $3x^2$
(a) 2 (b) 3 (c) 1 (d) 0

Question 10) The numerical coefficient of $2\pi r$.
(a) 2 (b) π (c) 2π (d) π

Question 11) The degree of polynomial
$4x^2y^2-7xy^3+2x^4 – 3y^4 + x^3y$
(a) 2 (b) 5 (c) 4 (d) -8

Question 12) $17x^3y^2z$ is
(a) monomial (b) binomial (c) trinomial (d) None

Question 13) $y^4 – 3y^2 + 19$ is
(a) binomial (b) trinomial (c) monomial (d) None

Question 14) Adding 2a & 5a gives
(a) 10a (b) $10a^2$ (c) $7a^2$ (d) 7a

Question 15) 3b × 6b is equal to
(a) 3b (b) $36b^2$ (c) $18b^2$ (d) 6b

Question 16) The literal coefficient of $– 5 ab^2$
(a) ab^2 (b) – 5 (c) a (d) b^2

Question 17) The degree of -2x + 9 is
(a) 1 (b) 0 (c) -2 (d) 9

Question 18) $m – 8m^3 + m^4 – 2m^2$ is
(a) monomial (b) binomial (c) trinomial (d) polynomial

Question 19) $y^4 – 3y^2 + 19$ is
(a) Monomial (b) binomial (c) trinomial (d) polynomial

Question 20) $- z + \sqrt{3}\ z^3$ is
(a) Monomial (b) binomial (c) trinomial (d) polynomial

Question 21) - 11 – 7x is
(a) monomial (b) binomial (c) trinomial (d) polynomial

Question 22) Divide $28 a^3b^2 c$ by 7ab we have
(a) $5a^4b^2c$ (b) $4a^2bc$ (c) $4a^3b^2cd$ (d) None

Question 23) Divide $48a^4b^5c^6$ by $– 16a^2c^2$ we have
(a) $3a^2b^5c^4$ (b) $– 3a^2b^5c^4$ (c) $– 3a^3b^5c^3$ (d) None

Question 24) Divide $(x^2 + 2x)$ by x + 2
(a) x + 2 (b) x^2 (c) x (d) 0

Question 25) (a + b) (a - b) is equal to
(a) a^2+b^2+2ab (b) a^2+b^2-2ab (c) $a^2 – b^2$ (d) $a^2 + b^2$

Chapter – 13

Question 1) (x + 4) (x + 2) is equal to
(a) x^2+8x+6 (b) x^2+6x+8 (c) x^2+8 (d) x^3+b

Question 2) (a + 1) (a + 8) is equal to
(a) a^2+8+9a (b) a^2+8 (c) a^2+9 (d) a^2+9a+8

Question 3) (c + 3) . (c + 2) is equal to
(a) c^2+5c+6 (b) c^2+6c+5 (c) $5c^2+6c+1$ (d) None of the above

Question 4) (y - 7) . (y + 3) is equal to
(a) $b^2-7b+10$ (b) $b^2-10b+7$ (c) 7 + 10b (d) $7b^2+10b-1$

Question 5) (b - 2) (b - 5) is equal to
(a) $b^2+10b+5$ (b) b^2+6b+7 (c) $b^2-7b+10$ (d) 0

Question 6) Square of 93
(a) 8659 (b) 8649 (c) 8639 (d) 8629

Question 7) Square of 99
(a) 9701 (b) 9601 (c) 9801 (d) 9901

Question 8) Square of 8.4
(a) 80.5 (b) 90.5 (c) 70.56 (d) 60.56

Question 9) The square of 98 is
(a) 9604 (b) 9804 (c) 9614 (d) None

Question 10) The square of 1003 is
(a) 10,60,009 (b) 10,00,6009 (c) 10,06,009 (d) 10,00,0069

Question 11) The square of 999 is
(a) 998091 (b) 998001 (c) 998991 (d) 998061

Question 12) The square of 10.8 is
(a) 117.84 (b) 116.94 (c) 115.24 (d) 116.64

Question 13) The square of 99.99 is
(a) 9998.0010 (b) 9999.01 (c) 9999.80 (d) 9998.0001

Question14) $9m^2 - (.....) + 64n^2$, fill the blanks
(a) -48mn (b) 48mn (c) 6mn (d) 24mn

Question 15) (.....) + 48x + 64
(a) $25x^2$ (b) $16x^2$ (c) $6x^2$ (d) $9x^2$

Question 16) $25a^2 + 120ab + (.....)$
(a) $144b^2$ (b) $144a^2$ (c) $12b^2$ (d) 0

Question 17) Find the value of 102×98
(a) 9996 (b) 9886 (c) 9896 (d) 9006

Question 18) 505 × 495
(a) 2,40,975 (b) 2,49,975 (c) 259,975 (d) 2,69,975

Question 19) 1.97 × 2.03
(a) 4.9991 (b) 5.9991 (c) 6.9991 (d) 3.9991

Question 20) 200.04 × 199.66
(a) 29999.9984 (b) 39999.9984 (c) 39999.9974 (d) 39999.9874

Question 21) The value of (a + 2b) (a - b)
(a) $a^2 + 4a^2$ (b) $a^2 - 4b^2$ (c) $a^2 - 9b^2$ (d) 0

Question 22) The value of (3 + 2b) (3 - 2b)
(a) $9 - 4b^2$ (b) $9 + 4b^2$ (c) 9 + 2b (d) $9 - 2b^2$

Question 23) The value of (6b + 3a) (6b – 3a) is
(a) $81b^2 - 9a$ (b) $81b^2 - 9b^2$ (c) $81 + 9b^2$ (d) $36b^2 - 9a^2$

Question 24) If $x + \frac{1}{x} = 3$, then $x^2 + \frac{1}{x^2}$ is
(a) 9 (b) 6 (c) 7 (d) 5

Question 25) If $x + \frac{1}{x} = 5$, then $x^2 + \frac{1}{x^2}$ is
(a) 25 (b) 27 (c) 23 (d) 22

Chapter – 17

Question 1) Scalene triangle is a triangle with sides
(a) all lengths same (b) two lengths same (c) all angles equal (d) no side same

Question 2) Isosceles triangle is a triangle with sides
(a) all lengths same (b) two lengths same (c) all angles same (d) no angle same

Question 3) Equilateral triangle is a triangle with
(a) all sides equal (b) no side equal (c) two sides equal (d) two angle equal

Question 4) An acute angle means angle
(a) equal to 90^0 (b) less than 180^0 (c) less than 90^0 (d) equal to 90^0

Question 5) An obtuse angle means angles
(a) more than 180^0 (b) more than 90^0 (c) equal to 90^0 (d) None of these

Question 6) Measure of right angle is
(a) 90^0 (b) 60^0 (c) 120^0 (d) 180^0

Question 7) Sum of all angles of triangle is
(a) 540^0 (b) 360^0 (c) 120^0 (d) 180^0

Question 8) In a right angled triangle the longest side is
(a) base (b) Perpendicular (c) Hypotenuse (d) None

Question 9) Right – angled triangle must have
(a) four right angles (b) Three right angles (c) one right angle (d) two right angles

Question 10) Triangles can be classified on basis of
(a) the number of equal sides (b) the types of angles (c) length of the segments (d) both a & b

Question 11) Obtuse angled triangle must have
(a) four obtuse angles (b) three obtuse angles (c) two obtuse angles (d) one obtuse angle

Question 12) Acute – angled triangle must have
(a) three acute angles (b) two acute angles (c) four acute angles (d) only one acute angle

Question 13) Which of the following is not a criterion for congruence of triangles ?
(a) SAS (b) A.S.A (c) S.S.A (d) SSS

Question 14) If AB = QR, BC = PR & CA = PQ, then
(a) Δ ABC ≅ PQR (b) Δ CBA ≅ PRQ (c) Δ BAC ≅ RPQ (d) Δ PQR ≅ BCA

Question 15) In Δ ABC, AB = AC & $\angle B = 50^0$. Then $\angle C$ is
(a) 40^0 (b) 50^0 (c) 80^0 (d) 130^0

Question 16) In Δ ABC, BC = AB & $\angle B = 80^0$. Then $\angle A$ is
(a) 80^0 (b) 40^0 (c) 50^0 (d) 100^0

Question 17) In Δ PQR, ∠R = ∠ P & QR = 4cm and PR = 5cm. Then the length of PQ is
(a) 4cm (b) 5cm (c) 2cm (d) 2.5cm

Question 18) D is a point on the side BC of a Δ ABC such that AD bisects ∠BAC. Then
(a) BD = CD (b) BA > BD (c) BD > BA (d) CD > CA

Question 19) It is given that Δ ABC ≅ Δ FDE and AB = 5cm, ∠ A = 80^0. Then which of the following in true ?
(a) DF = 5cm, ∠ F = 60^0 (b) DF = 5cm, ∠ E = 60^0 (c) DE = 5cm, ∠ E = 60^0 (d) DE = 5cm, ∠ D = 40^0

Question 20) Two sides of a triangle are of lengths 5cm and 1.5cm. The length of third side of the triangle connot be
(a) 3.6cm (b) 4.1cm (c) 3.8cm (d) 3.4cm

Question 21) In Δ PQR , if ∠ R > ∠ Q then
(a) QR > PR (b) PQ > PR (c) PQ < PR (d) QR < PR

Question 22) In triangles ABC & PQR AB = AC, ∠ C = ∠ P and ∠ B = ∠ Q. The two triangles are
(a) isosceles but not congruent (b) isosceles and congruent
(c) congruent but not isosceles (d) neither congruent nor isosceles

Question 23) In triangles ABC and DEF, AB = FD & ∠ A = ∠ D. The two triangles will be congruent by S.A.S axiom if
(a) BC = EF (b) AC = DE (c) AC = EF (d) BC = DE

Question 24) Sum of complementary angles is
(a) 90^0 (b) 18^0 (c) 360^0 (d) 540^0

Question 25) Sum of supplementary angles is
(a) 90^0 (b) 180^0 (c) 360^0 (d) 540^0