K.P.C. PUBLIC SCHOOL, KHARGHAR
ASSESSMENT - II [2023-24]

GRADE :-VII **TIME:-3H**
SUBJECT :- MATHAMATICS **MARKS:-100**

Section A

This sections comprises of multiple choice question (MCQS) (1x30=30)

1) **A/an_____ connect a vertex of a triangle to the mid point of the opposite side.**
(a) altitude (b) median (c) vertex (d) none of these

2) **By what fraction should we multiply $\frac{4}{5}$ to get $\frac{16}{35}$?**
(a) $\frac{4}{7}$ (b) $\frac{7}{4}$ (c) $\frac{4}{5}$ (d) $\frac{16}{35}$

3) **$If(-50) \div x = 1$, then x is equal to**
(a) 1 (b) 50 (c) -50 (d) 10

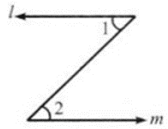
4) **Express 729 as a power of 3.**
(a) 3^8 (b) 3^6 (c) 9^3 (d) none of these

5) **What will be the range of following data? 32, 41, 28, 54, 35, 26, 33, 23, 38, 40**
(a) 25 (b) 23 (c) 31 (d) 54

6) . **The sum of the length of any two sides of a triangle is_____ the third side of the triangle.**
(a) less than (b) greater than (c) double (d) half

7) . **Median of the data 13, 16, 12, 14, 19, 12, 14, 13, 14 is:**
(a) 14 (b) 19 (c) 12 (d) 13

8) . **If l || m, then ∠1 = ∠2 because they are_____,**

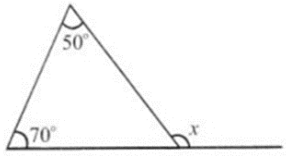


(a) corresponding angles (b) vertically opposite angles
(c) alternate interior angles (d) supplementary angles

9) . **The value of $(-1)^{500}$ is:**
(a) -1 (b) 1 (c) 0 (d) none of these

10) **The solution of the equation 3m+7=16 is**
(a) 1 (b) 2 (c) 3 (d) 4

11) . **Find the value of x in the adjoining figure.**



(a) 50° (b) 70° (c) 120° (d) 180°

12) **The approximate distance of moon from the earth is 384, 467, 000 m and in exponential form this distance can be written as _____.**
(a) 3.84, 467 × 10^8 m (b) 384, 467 × 10^{-8} m
(c) 384, 467 × 10^{-9} m (d) 3.844, 67 × 10^{-13} m

13) . **value of (3° + 2°) × 5° is**
(a) 1 (b) 25 (c) 2 (d) 0

14) . **The mean of the first five natural number is _____.**
(a) 2 (b) 5 (c) 3 (d) 4

15) . **The pair of integers whose sum is -5:**
(a) 1, -4 (b) -1, 6 (c) -3, -2 (d) 5, 0

16) . **What is the sum of 5.300 and 3.250?**
(a) 8.550 (b) 85.50 (c) 5.6250 (d) 8550

17. . In the Pythagoras property, the triangle must be _____ .
(a) acute angled (b) right angled (c) obtuse angled (d) none of these
18) . PQR is a triangle right angled at P. If PQ = 3 cm and PR = 4 cm, find QR.
(a) 7 cm (b) 17 cm (c) 13 cm (d) none of these.
19) . The Base in the expression 8^{10} is _____.
(a) 10 (b) 2 (c) 8 (d) 800
20) Median of the data 9, 8, 1, 2, 3, 6, 7, 5, 4 is _____.
(a) 5 (b) 9 (c) 6 (d) 4
21) The solution of the equation 4(2-x) = 4 is
(a) 1 (b) 2 (c) 3 (d) 4
22) Median is also called _____ in an equilateral triangle.
(a) Median (b) Hypotenuse (c) Altitude (d) Transversal
23) The equation of statement
'The sum of three times x and 10 is 13'. Is
(a) 3x + 10 = 13 (b) 3x – 10 = 13 (c) 3x + 13 = 10 (d) none of these
24) . A data can have _____ mode.
(a) only one (b) only two (c) only three (d) more than one
25) . How many medians a triangle can have?
(a) 2 (b) 1 (c) 3 (d) 0
26) . Which is the longest side in the triangle ABC right angled at B?
(a) AB (b) BC (c) AC (d) none of these.
27) $3\frac{1}{3} \div 10$ is equal to
(a) $\frac{1}{2}$ (b) $\frac{1}{3}$ (c) $\frac{1}{4}$ (d) $\frac{1}{5}$
28) The solution of the equation p+4=15 is p =
(a) 12 (b) 13 (c) 14 (d) 11
29) Simplify and write in exponential form of $2^2 \times 2^5$
(a) 2^3 (b) 2^7 (c) 128 (d) none of these
30) Which is the longest side in the triangle ABC right angled at B?
(a) AB (b) BC (c) AC (d) none of these

Section B

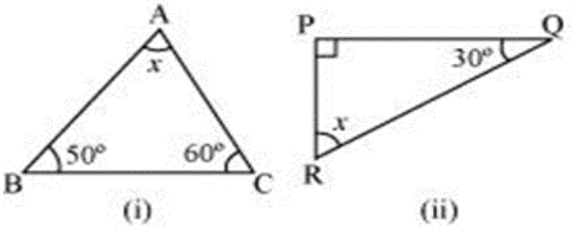
This section comprises with very short answer type questions. (2x10=20)

31) . Simplify: $(-3)^3 \times (-3)^4$

32) Check whether the value given in the brackets is a solution to the given equation or not:

$7n + 5 = 19$ ($n = 2$)

33) . Find the value of the unknown *x* in the following diagrams



34) . Match of column:

Column I	Column II
1. $x^m \times x^n$	a. x^{mn}
2. $x^m \div x^n$	b. 1
3. $(x^m)^n$	c. x^{m+n}
4. x°	d. $x^{m-n}(m > n)$

35) **A cricketer scores the following runs in eight innings:**

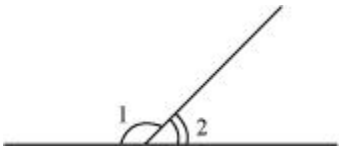
58, 76, 40, 35, 46, 45, 0, 100

Find the mean score.

36) . Identify the greater number ?

4^3 or 3^4

37) . In the given figure, ∠1 and ∠2 are supplementary angles. If ∠1 is decreased, what changes should take place in ∠2 so that both the angles still remain supplementary.



38) What power 2 is 32?

39) Find

$$\frac{7}{24} - \frac{17}{36}$$

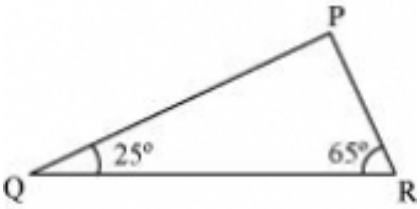
40) . Solve the given equation and find the value of *p*

$5p + 2 = 17$

Section C

This section comprises of short answer type questions. **(3x6=18)**

41) Angles Q and R of a ΔPQR are 25° and 65°.



Write which of the following is true:

(i) $PQ^2 + QR^2 = RP^2$

(ii) $PQ^2 + RP^2 = QR^2$

(iii) $RP^2 + QR^2 = PQ^2$

42) Find the value of:

(i) 2^6 (ii) 5^3 (iii)16^2

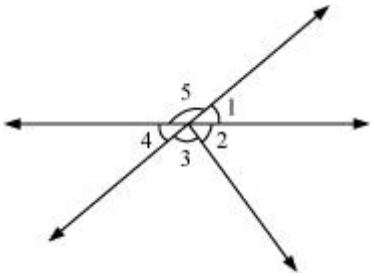
43) Solve the following equation

$$2y + \frac{5}{2} = \frac{37}{2}$$

44) Find the mean, mode and median of the data: 13, 16, 12, 14, 19, 12, 14, 13, 14

45) . Indicate any two pairs of:

(i) Vertically opposite angles. (ii) Linear pairs.

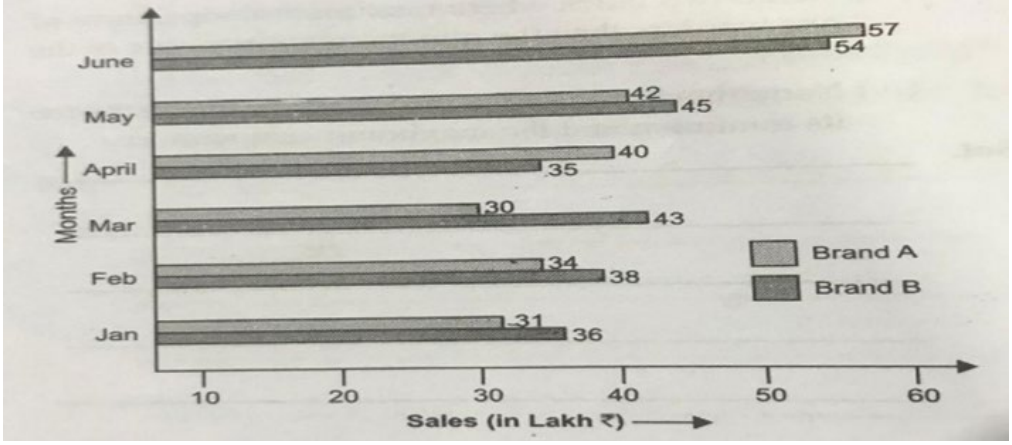


46) Irfan says that he has 7 marbles more than five times the marbles Parmit has. Irfan has 37 marbles. How many marbles does Parmit have?

Section D

This section comprises of long answer type questions. **(5 x4=20)**

47) . Study the double bar graph shown below and answer the questions that follows.



a) Which information is presented by the above double bar graph?

b) In which month sales of Brand A increased as compared to the previous month?

c) What is the difference of sales of the Brands for the month of June?

d) Find the average sales of Brand B for six months.

48) The performance of students in 1st Term and 2nd Term is given. Draw a double bar graph choosing appropriate scale and answer the following

Subject	English	Hindi	Moths	Science	S. science
1st Term (M.M. 100)	67	72	88	81	73
2nd Term (M.M. 100)	70	65	95	85	75

(i) In which subject, has the child improved his performance the most?
(ii) In which subject is the improvement the least?
(iii) Has the performance gone down in any subject?

49) . Solve the following equations.

(a) $4 = 7(p - 2)$

(b) $16 = 4 + 3(t + 2)$

50) One of the exterior angles of a triangle is 115° and the interior opposite angles are in the ratio 2: 3. Find the measure of all interior angles of triangle.

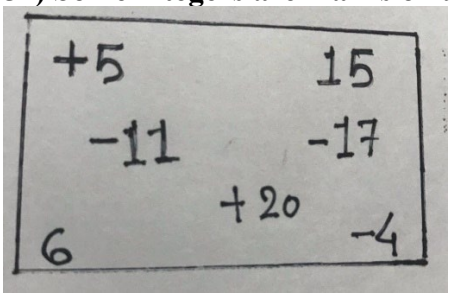
Section E

This section comprises with case study type questions. (4x3=12)

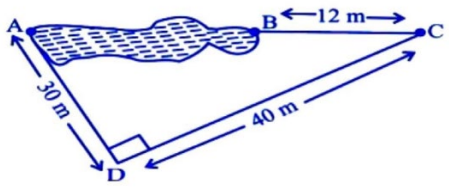
51) In a test, Abha gets twice the marks as that of Palak. Two times Abha's marks and three times Palak's marks make 280. (1+2+1=4)

a) If Palak gets x marks, Abha gets _____marks.
b) The equation formed is _____.
c) Find the solution of the equation formed.

52) Some integers are marks on a board . What is the range and mean of these integers. (2+2=4)



53) Rohan wants to measure the distance of a pond during the visit to his native. He marks point A and B on the opposite edges of a pond as shown in figure below. To find the distance between 'the points,he makes a right -angled triangle using rope connection point B with another point C are a distance of 12m,connecting C to point D at a distance of 40m from point C and the connecting D to the point A which is are a distance of 30m from D such that∟ADC=90°. (1+2+1=4)



a) Which property of right angled triangle will be used to find the distance AC?
b) What is the distance AC?

c) Find the length of rope.