

**KENDRIYA VIDYALAYA GACHIBOWLI , GPRA CAMPUS, HYD-32**  
**SAMPLE PAPER 02 FOR HALF YEARLY EXAM (2019-20)**

SUBJECT: MATHEMATICS

**BLUE PRINT FOR HALF YEARLY EXAM: CLASS VIII**

Chapter	MCQ (1 mark)	VSA (1 mark)	SA – I (2 marks)	SA – II (3 marks)	LA (4 marks)	Total
<b>Rational Numbers</b>	1(1)	1(1)	<b>2(1)*</b>	3(1)	--	<b>7(4)</b>
<b>Linear equations in one variable</b>	1(1)	2(2)	--	3(1)	<b>4(1)*</b>	<b>10(5)</b>
<b>Understanding Quadrilaterals</b>	2(2)	2(2)	2(1)	<b>3(1)*</b>	--	<b>9(6)</b>
<b>Practical Geometry</b>	--	--	--	3(1)	4(1)	<b>7(2)</b>
<b>Data Handlings</b>	2(2)	1(1)	2(1)	3(1)	4(1)	<b>12(6)</b>
<b>Squares and Square Roots</b>	1(1)	1(1)	<b>2(1)*</b>	3(1)	4(1)	<b>11(5)</b>
<b>Cubes and Cube Roots</b>	1(1)	1(1)	2(1)	<b>3(1)*</b>	4(1)	<b>11(5)</b>
<b>Comparing Quantities</b>	2(2)	2(2)	2(1)	3(1)	<b>4(1)*</b>	<b>13(7)</b>
<b>Total</b>	<b>10(10)</b>	<b>10(10)</b>	<b>12(6)</b>	<b>24(8)</b>	<b>24(6)</b>	<b>80(40)</b>

**MARKING SCHEME FOR PERIODIC TEST - II**

SECTION	MARKS	NO. OF QUESTIONS	TOTAL
<b>MCQ</b>	1	10	10
<b>VSA</b>	1	10	10
<b>SA – I</b>	2	6	12
<b>SA – II</b>	3	8	24
<b>LA</b>	4	6	24
<b>GRAND TOTAL</b>			<b>80</b>

**KENDRIYA VIDYALAYA GACHIBOWLI , GPRA CAMPUS, HYD-32**  
**SAMPLE PAPER 02 FOR HALF YEARLY EXAM (2019-20)**

**SUBJECT: MATHEMATICS**  
**CLASS : VIII**

**MAX. MARKS : 80**  
**DURATION : 3 HRS**

**General Instructions:**

- (i). All questions are compulsory.
- (ii). This question paper contains 40 questions divided into four Sections A, B, C and D.
- (iii). **Section A** comprises of 20 questions of **1 mark** each. **Section B** comprises of 6 questions of **2 marks** each. **Section C** comprises of 8 questions of **3 marks** each and **Section D** comprises of 6 questions of **4 marks** each.
- (iv). There is no overall choice. However, an internal choice has been provided in two questions of 2 marks each, two questions of 3 marks each and two questions of 4 marks each. You have to attempt only one of the alternatives in all such questions.
- (v). Use of Calculators is not permitted

**SECTION – A**

**Questions 1 to 20 carry 1 mark each.**

Frequency Distribution of Daily Income of 550 workers of a factory is given below. Study the following frequency distribution table and answer the questions from Q1 – Q2.

Class Interval (Daily Income in Rupees)	Frequency (Number of workers)
100-125	45
125-150	25
150-175	55
175-200	125
200-225	140
225-250	55
250-275	35
275-300	50
300-325	20
<b>Total</b>	<b>550</b>

1. Which class has the highest frequency ?  
(a) 200-225                      (b) 300-325                      (c) 175-200                      (d) 150-175
2. What is the size of class intervals ?  
(a) 24                                      (b) 25                                      (c) 26                                      (d) 15
3. What is the length of the side of a square whose area is  $441 \text{ cm}^2$  ?  
(a) 21                                      (b) 22                                      (c) 20                                      (d) 12
4. Which of the following is Hardy-Ramanujan Number ?  
(a) 1724                                      (b) 1725                                      (c) 1727                                      (d) 1729
5. Maximum possible exterior angle in a regular polygon is \_\_\_\_\_.  
(a)  $70^\circ$                                       (b)  $60^\circ$                                       (c)  $90^\circ$                                       (d)  $120^\circ$

**6. How many diagonals does a regular Hexagon has?**

- (a)2                      (b) 9                      (c)3                      (d) 5

7. Two numbers are in the ratio 5:3. If they differ by 18, what are the numbers?

- (a) 45, 27                      (b) 50, 32                      (c) 40, 22                      (d) none of these

8. Which of the rational numbers  $\frac{-11}{28}$ ,  $\frac{-5}{7}$ ,  $\frac{9}{-14}$ ,  $\frac{29}{-42}$  is the greatest?

- (a)  $\frac{-11}{28}$     (b)  $\frac{-5}{7}$                       (c)  $\frac{9}{-14}$                       (d)  $\frac{29}{-42}$

9. Find the ratio of 50 paise to Rs 5

- (a) 10 : 1                      (b) 1 : 10                      (c) 1 : 5                      (d) none of these

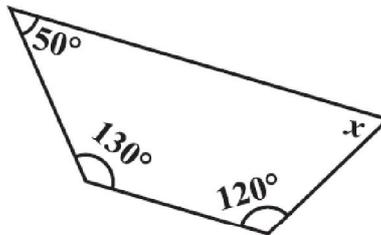
10. Out of 32 students, 8 are absent. What percent of the students are present?

- (a) 75%                      (b) 64%                      (c) 60%                      (d) none of these

11. Solve :  $2y + 9 = 4$

12. Solve:  $3x = 2x + 18$

13. Find  $x$  in the adjoining figure:



14. Multiply  $\frac{6}{13}$  by the reciprocal of  $\frac{-7}{16}$ .

15. State the name of a regular polygon of 6 sides.

16. Find the square of the number 39.

17. Find the cube root of 17576 through estimation.

18. The list price of a frock is Rs 220. A discount of 20% is announced on sales. What is the amount of discount on it.

19. A picnic is being planned in a school for Class VII. Girls are 60% of the total number of students and are 18 in number. Find the number of boys.

20. A bag has 5 red balls and 7 yellow balls. (The balls are identical in all respects other than colour). A ball is drawn from the bag without looking into the bag. What is probability of getting a yellow ball?

### **SECTION – B**

**Questions 21 to 26 carry 2 marks each.**

21. Find two rational numbers between  $\frac{2}{3}$  and  $\frac{4}{5}$ .

**OR**

Using appropriate properties find  $-\frac{2}{3} \times \frac{3}{5} + \frac{5}{2} - \frac{3}{5} \times \frac{1}{6}$

22. How many sides does a regular polygon have if each of its interior angles is  $165^\circ$ ?
23. Find the cube root of 17576 by prime factorisation method.
24. Waheeda bought an air cooler for Rs 3300 including a tax of 10%. Find the price of the air cooler before VAT was added.
25. Find the smallest square number that is divisible by each of the numbers 4, 9 and 10.

**OR**

Find the area of a square field if its perimeter is 96m.

26. The shoppers who come to a departmental store are marked as: man (M), woman (W), boy (B) or girl (G). The following list gives the shoppers who came during the first hour in the morning:

W W W G B W W M G G M M W W W W G B M W B G G M W W M M W W  
W M W B W G M W W W W G W M M W W M W G W M G W M M B G G W

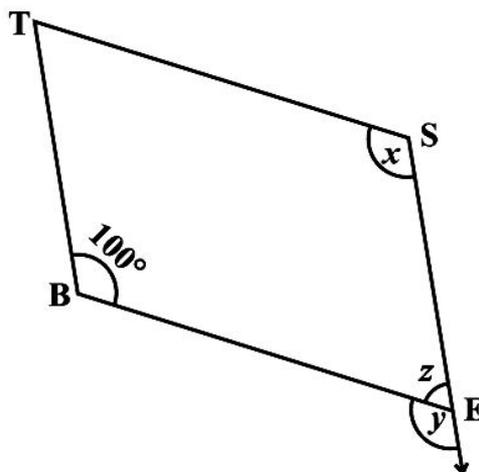
Make a frequency distribution table using tally marks.

### SECTION – C

Questions 27 to 34 carry 3 marks each.

27.  $\frac{2}{5}$  of total number of students of a school come by car while  $\frac{1}{4}$  of students come by bus to school. All the other students walk to school of which  $\frac{1}{3}$  walk on their own and the rest are escorted by their parents. If 224 students come to school walking on their own, how many students study in that school?

28. In the below Figure, BEST is a parallelogram. Find the values  $x$ ,  $y$  and  $z$ .

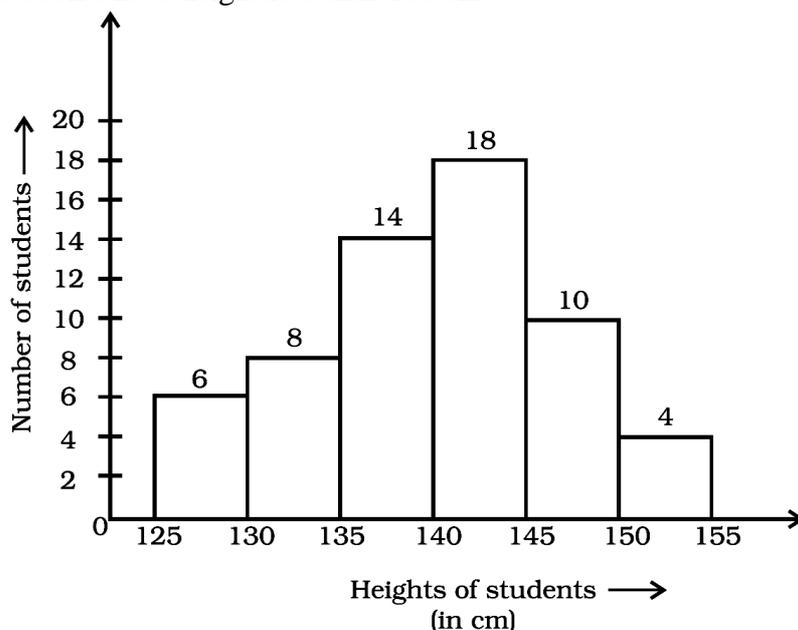


**OR**

The ratio of exterior angle to interior angle of a regular polygon is 1: 4. Find the number of sides of the polygon.

29. Construct a quadrilateral ABCD where  $AB = 4.5$  cm,  $BC = 5.5$  cm,  $CD = 4$  cm,  $AD = 6$  cm and  $AC = 7$  cm.

30. A new computer costs Rs 1,00,000. The depreciation of computers is very high as new models with better technological advantages are coming into the market. The depreciation is as high as 50% every year. How much will the cost of computer be after two years?
31. Radha takes some flowers in a basket and visits three temples one by one. At each temple, she offers one half of the flowers from the basket. If she is left with 3 flowers at the end, find the number of flowers she had in the beginning.
32. Look at the histogram below and answer the questions that follow.
- (a) How many students have height more than or equal to 135 cm but less than 150 cm?  
 (b) Which class interval has the least number of students?  
 (c) How many students have height less than 140 cm?



33. The students of Class VIII of a school donated Rs 2401 in all, for Prime Minister's National Relief Fund. Each student donated as many rupees as the number of students in the class. Find the number of students in the class.
34. By what smallest number should 3600 be multiplied so that the quotient is a perfect cube. Also find the cube root of the quotient.

**OR**

Difference of two perfect cubes is 189. If the cube root of the smaller of the two numbers is 3, find the cube root of the larger number.

### SECTION – D

**Questions 35 to 40 carry 4 marks each.**

35. An employee works in a company on a contract of 30 days on the condition that he will receive Rs. 120 for each day he works and he will be fined Rs. 10 for each day he is absent. If he receives Rs. 2300 in all, for how many days did he remain absent?

**OR**

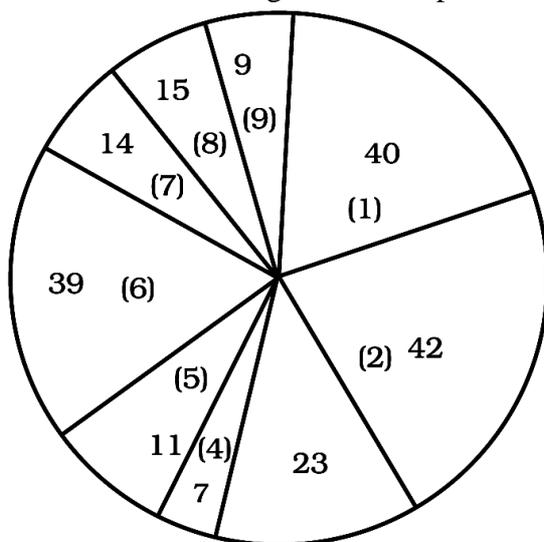
A lady went to a bank with Rs. 1,00,000. She asked the cashier to give her Rs. 500 and Rs. 1,000 currency notes in return. She got 175 currency notes in all. Find the number of each kind of currency notes.

36. There are some boys and girls in a room. The square of the number of the girls is less than the square of the number of boys by 28. If there were two more girls, the number of boys would have been the same as that of the girls. Find the total number of the boys and girls in the room
37. Construct a quadrilateral DEAR where  $DE = 4 \text{ cm}$  ,  $EA = 5 \text{ cm}$  ,  $AR = 4.5 \text{ cm}$  ,  $\angle E = 60^\circ$  and  $\angle A = 90^\circ$  .
38. Evaluate:  $\sqrt[3]{0.027} + \sqrt[3]{0.008} + \sqrt[3]{0.064}$
39. Maria invested Rs 8,000 in a business. She would be paid interest at 5% per annum compounded annually. Find (i) The amount credited against her name at the end of the second year. (ii) The interest for the 3rd year.

**OR**

Arif took a loan of Rs 80,000 from a bank. If the rate of interest is 10% per annum, find the difference in amounts he would be paying after  $1\frac{1}{2}$  years if the interest is (i) compounded annually (ii) compounded half yearly.

40. Following is a pie chart showing the amount spent in rupees (in thousands) by a company on various modes of advertising for a product. Now answer the following questions.
1. Which type of media advertising is the greatest amount of the total?
  2. Which type of media advertising is the least amount of the total?
  3. What per cent of the total advertising amount is spent on direct mail campaigns?
  4. What per cent of the advertising amount is spent on newspaper and magazine advertisements?



1. Television
2. Newspapers
3. Magazines
4. Radio
5. Business papers
6. Direct mail
7. Yellow pages
8. Outdoor
9. Miscellaneous