

First Term Exam – 2017-2018

Class – VIII

Subject – MATHEMATICS

Time: 3 Hours

Max. Marks: 80

General Instructions

- Section–A: Fill in the blanks-Questions 1 to 10 carry 1 mark.
- Section–B: Very Short answer type-Question 11 to 18 carry 2 marks.
- Section–C: Short Answer Type-Questions 19 to 28 carry 3 marks.
- Section–D: Long Answer Type-Questions 29 to 34 carry 4 marks.

Section A

1. The sum of additive inverse and multiplicative inverse of 2 is _____.
2. By what rational should $-15/56$ be divided to get $-5/7$. _____.
3. If $5 = \frac{2}{3}(2x-1)$, then value of x is _____.
4. If two consecutive angles of parallelogram are in the ratio 1 : 3 that the largest angle is _____.
5. The sum of three consecutive numbers is 108, then the middle number is _____.
6. The ratio of the interior angles of a regular pentagon and a regular decagon is _____.
7. From a pack of 52 playing cards, a card is selected at random. The probability that it is a black King is _____.
8. What % of 10kg is 250gm _____.
9. If the number $314a298$ is divisible by 11 and a is a digit, then the value of a is _____.
10. If a person buys an article for Rs. 400 gaining $\frac{1}{4}$ of its C.P., find his gain percent _____.

Section B

11. Find 5 rational numbers between $-5/6$ and $5/8$.
12. Find the number whose 5th part increased by 5 is equal to its 4th part diminished by 5.

Handwritten notes:
 $2(3x + 5x) = 48$
 $16x = 48$
 $x = 3$
 $2 \times 8x = 48$

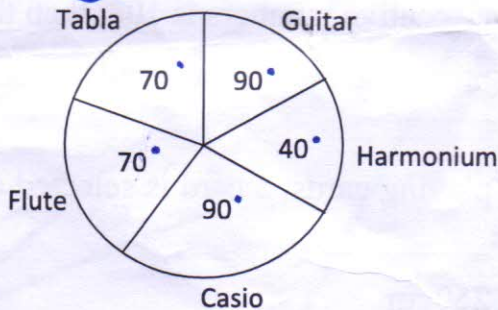
- 13. The ratio of 2 sides of a parallelogram is 3:5 and its perimeter is 48cm. Find the sides of a parallelogram?
- 14. Construct a rectangle whose adjacent sides are 6cm and 5cm respectively.
- 15. A shopkeeper purchased 300 bulbs for Rs.10 each. However 20 bulbs were fused and had to be thrown away. The remaining were sold at Rs.15 each. Find gain or loss %
- 16. Saumya had Rs.800 left after spending 80% of her money. How much did she have in the beginning.
- 17. Find the value of A and B

AB

x BA

BCB

- 18. The pie chart shows the instrument learnt by 300 students of a school, find how many of these learnt (i) guitar (ii) harmonium



Section C

- 19. Find the compound interest on Rs. 10752 at 12% p.a for $1\frac{1}{2}$ years, interest being payable half yearly?
- 20. A box of 72 coloured balloons contains the following numbers of balloons of each colour. Draw a pie chart to show this information.

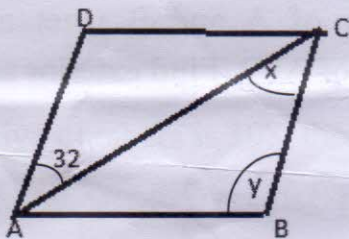
colour	red	yellow	green	blue
Number of balloons	12	24	20	16

Handwritten calculations for Question 19:
 $10752 \times \left(\frac{100+12}{100}\right)^1 \times \left(\frac{200+12}{200}\right)^1$
 $10752 \times 1.12 \times 1.06$
 10752×1.1872
 12752.52

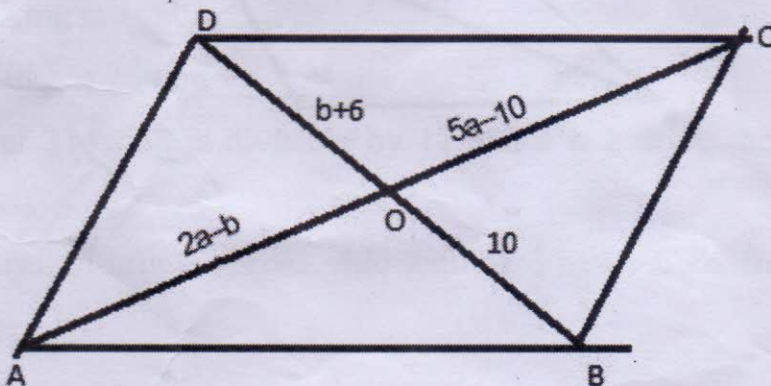
Handwritten scribbles on the right margin.

21. Bhanu bought two fans for Rs. 3605 each. She sold one of them at a profit of 15% and the other at a loss of 9%. Find the selling price of each fan; and calculate overall profit or loss in the whole transaction.
22. Using properties find:

$$\frac{3}{5} \times \frac{-2}{7} - \frac{1}{6} \times \frac{5}{2} + \frac{1}{14} \times \frac{3}{5}$$
23. Represent on the same number line : $\frac{-3}{5}, \frac{7}{10}, \frac{6}{5}$
24. Solve for x : $\frac{6x+1}{3} + 1 = \frac{x-3}{6}$
25. Present ages of Anu and Raj are in the ratio 4 : 5. Eight years from now the ratio of their ages will be 5 : 6. Find the present ages?
26. Construct a quadrilateral ABCD in which AB = 6 cm, BC = 5 cm, $\angle A = 55^\circ$, angle $\angle B = 100^\circ$ and $\angle D = 90^\circ$.
27. ABCD is a rhombus. Find X and Y.



28. ABCD is a parallelogram. find value of a and b



SECTION D

29. The area of rectangle is $45\frac{5}{16}$ cm². If one edge is $6\frac{1}{4}$ cm, find the other side and perimeter?

3452
10752
43008
u3008

43008
10752
150528

150528
53
4

30. Construct a square each of whose diagonal measure 6.2 cm
31. Quantity of rice sold by a shopkeeper on each day during the month of august is given below:
124, 132, 154, 125, 131, 142, 148, 144, 126, 136, 151, 152, 129, 135, 153, 126, 133, 131, 125, 150, 139, 140, 145, 125, 134, 146, 153, 122, 135, 125, 139
- (i) Prepare a frequency distribution table for the above data.
- (ii) Represent the information in the form of histogram.
32. I have a total cash of Rs. 30000 with me of denomination Rs. 10. Rs. 20 and Rs. 50. The number of notes of Rs. 20 is three times the number of notes of Rs. 50. The total numbers of notes is 1600. How many notes of each denominations are with me?
33. Fatima borrows Rs. 12,500 at 15% p.a. for 2 years at simple interest and Radhika borrows the same amount for the same time period at 12% p.a compounded annually. Who pays more interest and by how much?
34. In the figure, the bisector of A and B meet at a point P. If $\angle C = 96$ and $\angle D = 30$, find the measure of APB. Find exterior angles at point C and D.

