CLASS VIII – MATHEMATICS

Chapter Test: Fractions in Disguise

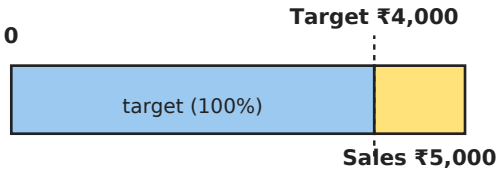
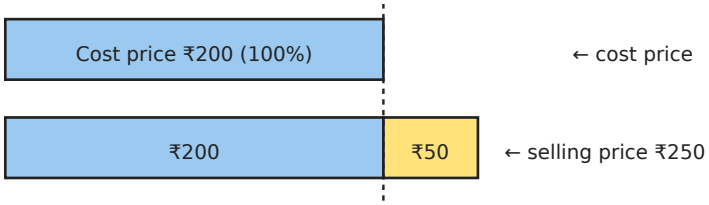
(Ganita Prakash, Grade 8, Part II – Chapter 1)

Time: 1½ Hours **M. M.: 40**

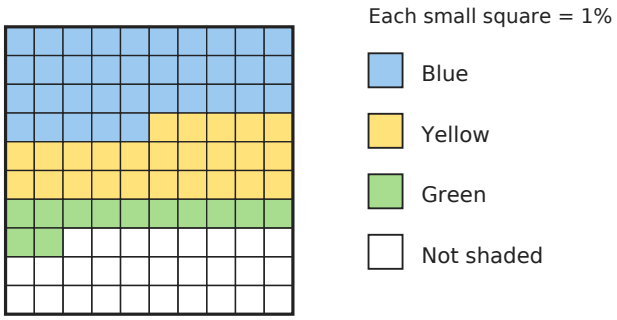
General Instructions:

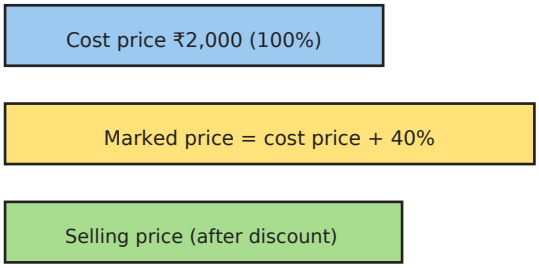
1. This paper contains 20 questions. All questions are compulsory.
2. This paper is divided into 4 sections: **A, B, C** and **D**.
3. In **Section A**, Questions no. 1 to 10 are Multiple Choice Questions carrying 1 mark each.
4. In **Section B**, Questions no. 11 to 13 are Very Short Answer type questions carrying 2 marks each.
5. In **Section C**, Questions no. 14 to 17 are Short Answer type questions carrying 3 marks each.
6. In **Section D**, Questions no. 18 to 20 are Long Answer / Case-based questions carrying 4 marks each.
7. There is no overall choice. However, an internal choice has been provided in 1 question of Section B, 3 questions of Section C and 2 questions of Section D.
8. Figures are only for reference and are not drawn to scale. Questions 9, 10, 11, 14 and 18 are figure-based.
9. Show all the steps of your working.
10. Use of calculator is **not** allowed.

Q. No.	Section – A	Marks
1	The fraction 7/20 expressed as a percentage is (A) 28% (B) 35% (C) 40% (D) 70%	**[1]**
2	15% of 80 is (A) 8 (B) 10 (C) 12 (D) 15	**[1]**
3	A number decreased by 20% becomes 40. The number is (A) 50 (B) 48 (C) 32 (D) 60	**[1]**
4	The simple interest on ₹5,000 at 8% p.a. for 2 years is added to the principal. The amount is (A) ₹5,400 (B) ₹5,640 (C) ₹5,600 (D) ₹5,800	**[1]**
5	₹10,000 is deposited at 10% p.a. compounded annually. The amount after 2 years is (A) ₹12,000 (B) ₹12,100 (C) ₹12,200 (D) ₹11,000	**[1]**
6	The price of an item falls from ₹80 to ₹60. The percentage decrease is (A) 20% (B) 33.33% (C) 25% (D) 75%	**[1]**
7	A shirt marked ₹600 is sold at a discount of 20%. Its selling price is (A) ₹480 (B) ₹520 (C) ₹580 (D) ₹120	**[1]**
8	A machine worth ₹50,000 depreciates by 10% in one year. Its value after one year is (A) ₹5,000 (B) ₹40,000 (C) ₹55,000 (D) ₹45,000	**[1]**

Q. No.	Section – A	Marks
9	In Fig. 1, the target is ₹4,000 and the sales are ₹5,000. The sales are what percentage of the target?  Fig. 1: Daily sales of a shop compared with its target (A) 25% (B) 105% (C) 125% (D) 150%	**[1]**
10	Fig. 2 shows the cost price and selling price of a bag. The profit percentage is  Fig. 2: Cost price and selling price of a bag (A) 20% (B) 25% (C) 50% (D) 125%	**[1]**

Q. No.	Section – B	Marks
11	Fig. 3 shows a trekker who has completed 35% of a forest trail by walking 7 km.  Fig. 3: A trekker on a forest trail (i) Find the total length of the trail. [1] (ii) How many more kilometres must he walk to reach the end? [1]	**[2]**
12	(A) Express 7/8 as a percentage and 62.5% as a fraction in simplest form. **OR** (B) Arrange in ascending order: 3/5, 55%, 0.58.	**[2]**
13	The price of a water purifier is ₹850. GST at 18% is added to it. Find the GST amount and the final price of the purifier.	**[2]**

Q. No.	Section – C	Marks
14	In Fig. 4 a grid of 100 equal squares is shaded with different colours: 35 squares blue, 25 yellow, 12 green and the rest are not shaded.  Fig. 4: A 10 × 10 grid of 100 equal squares (i) What percentage of the grid is blue? What percentage is yellow? [1] (ii) Write the part of the grid that is not shaded as a fraction in simplest form. [1] (iii) If the grid represents 600 students and yellow stands for those who walk to school, how many students walk to school? [1]	**[3]**
15	(A) A shopkeeper buys a notebook for ₹40 and marks it at ₹60. He sells it after giving a 10% discount. Find the selling price and the profit percentage. **OR** (B) Rhea scored 36 out of 45 in Maths, 45 out of 60 in Hindi and 42 out of 50 in Science. In which subject did she perform best? Show your working.	**[3]**
16	(A) Find the simple interest and the compound interest (compounded annually) on ₹8,000 at 5% p.a. for 2 years. What is the difference between the two? **OR** (B) A bike bought for ₹80,000 depreciates by 10% every year. Find its value after 2 years.	**[3]**
17	(A) The price of a laptop is ₹50,000. It is first increased by 20% and then decreased by 20%. Find the final price. Is the overall change an increase, a decrease or no change? Find the percentage. **OR** (B) Ananya says that two successive discounts of 25% and 25% are the same as a single discount of 50%. Using an item of price ₹800, check whether she is right.	**[3]**

Q. No.	Section – D	Marks
18	(A) Fig. 5 shows that a shopkeeper bought a gift set for ₹2,000, marked its price 40% above the cost price and then offered a 25% discount on the marked price.  Fig. 5: A shopkeeper marks up his goods and then gives a discount (i) Find the marked price. [1] (ii) Find the amount of the discount. [1] (iii) Find the selling price and the profit percentage. [1] (iv) If he had given a 30% discount instead, find the profit or loss percentage. [1] **OR** (B) Rohan bought a television for ₹25,500 after getting a 15% discount on its original price. (i) Find the original price. [2] (ii) If GST of 18% is added to the price he paid, what is the final bill? [2]	**[4]**
19	(A) Meena deposits ₹20,000 in a bank at 10% p.a. for 3 years. (i) Find the amount she gets if no compounding is done. [1] (ii) Find the amount she gets if interest is compounded annually. [2] (iii) How much more does she gain by compounding? [1] **OR** (B) The population of a town is 50,000. (i) If it increases by 4% every year, find the population after 2 years. [2] (ii) If it had decreased by 4% every year instead, find the population after 2 years. [2]	**[4]**
20	**Case Study:** Anand's Bakery buys a cake for ₹500 and marks its price at ₹700. During a festival sale, a 10% discount is given on the marked price. A GST of 5% is added to the discounted price while billing. (i) By what percentage is the marked price above the cost price? [1] (ii) Find the selling price after the discount. [1] (iii) Find the profit percentage on the cost price. [1] (iv) Find the total bill paid by a customer including GST. [1]	**[4]**

— End of Question Paper —