

# KOTHARI INTERNATIONAL SCHOOL, NOIDA

TERM END ASSESSMENT , SESSION 2024-2025

GRADE: 8 SUBJECT: MATHEMATICS

SET: A SUBJECTIVE QUESTIONS

DAY & DATE: FRIDAY, 28<sup>th</sup> FEBRUARY'2025

MAXIMUM MARKS: 60

NAME: \_\_\_\_\_

TIME ALLOWED: 2 Hrs 30 Mins.

ROLL NO: \_\_\_\_\_

## GENERAL INSTRUCTIONS:

1. This question paper consists of 3 pages and 22 questions. All questions are compulsory.
2. The paper contains three type of questions
  - SECTION B, Q. No.21 to 31 are of 2 marks each.
  - SECTION C, Q. No. 32 to 37 are of 3 marks each.
  - SECTION D,Q. No. 38 to 42 are of 4 marks.
3. Read the question paper carefully and then attempt it.

SECTION - B		
Q21.	Find the cube roots of the number 2460375 using the fact that $2460375 = 3375 \times 729$	(2)
Q22.	Rajni walks around a square field of area $2\frac{193}{324}$ m <sup>2</sup> . Find the side of the square field.	(2)
Q23.	Solve $\frac{1}{x+2} + \frac{1}{x+3} = \frac{2}{x+9}$	(2)
Q24.	An ice-cream brick measures 20 cm by 10 cm by 7 cm. How many such bricks can be stored in deep fridge whose inner dimensions are 100 cm by 50 cm by 42 cm?	(2)
Q25.	Raghavi has enough money to buy 75 machines worth Rs. 200 each. How many machines can she buy if she gets a discount of Rs. 50 on each machine?	(2)
Q26.	Kriti ordered one pizza and one garlic bread from a pizza store and paid Rs 387 inclusive of taxes of Rs 43. Find the tax%.	(2)
Q27.	If $\sqrt{841} = 29$ and $\sqrt{3969} = 63$ then find $\frac{\sqrt{39.69} + \sqrt{8.41}}{\sqrt{0.3969} - \sqrt{0.0841}}$	(2)
Q28.	In a hostel of 50 girls, there are food provisions for 40 days. If 30 more girls join the hostel, how long will these provisions last?	(2)
Q29.	Subtract $b(b^2 + b - 7) + 5$ from $3b^2 - 8$	(2)
Q30.	Factorise the expression $6y^2 - 17y + 12$	(2)
Q31.	Raghav is expecting a good increment in his current salary in the next financial year. If his new salary after a hike of 25 % is ₹ 20,000 then find the salary before increment ?	(2)
SECTION - C		
Q32.	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, then find the number of flowers she had in the beginning.	(3)

Q33.	A train is moving at a constant speed of 60 km/h. Draw a distance – time graph. (i) How far will it travel in 3 hours 30 minutes? (ii) Find the time required to cover a distance of 360 km.	(3)															
Q34.	The capacity of a certain cuboidal tank is 50000 litres of water. Find the breadth of the tank, if its height and length are 10 m and 2.5 m respectively.	(3)															
Q35.	35 children need 122.5 m <sup>2</sup> of space for a dance performance . If only 21 m <sup>2</sup> of space is available , how many children can give the performance ?	(3)															
Q36.	Factorise $9a^4 - 24a^2b^2 + 16b^4 - 256$	(3)															
Q37.	Simplify $\frac{(8.63 \times 8.63) - (1.37 \times 1.37)}{0.726}$	(3)															
<b>SECTION - D</b>																	
Q38.	A rectangular sheet of paper is rolled in two different ways to form two different cylinders. Find the volume of cylinders in each case if the sheet measures 44 cm x 33 cm.	(4)															
Q39.	A two-digit number is four times the sum of its digits and twice the product of its digits. Find the number.  Or  The area of a trapezium is 91 cm <sup>2</sup> and its height is 7 cm. If one of the parallel sides is longer than the other by 8 cm, find the two parallel sides.	(4)															
Q40.	Find the least number of 6 digits which is a perfect square ?	(4)															
Q41.	The compound interest largely depends on the fact that the rate of interest is compounded annually , semi-annually(half yearly) or quarterly. Normally we tend to overlook this factor and land up paying more . Radha and Deepali borrowed a sum of Rs 25,000 from the bank . Both borrowed for 2 years @ 20% per annum . But Radha’s bank compounded the interest annually whereas Deepali’s bank took the interest as compounded half yearly . Fill the table below using above and see the difference.	(4)															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 20%;">PRINCIPAL</th> <th style="width: 20%;">RATE</th> <th style="width: 20%;">TERM</th> <th style="width: 20%;">COMPOUND INTEREST</th> </tr> </thead> <tbody> <tr> <td>RADHA</td> <td>25,000</td> <td>20% annually</td> <td>2 years</td> <td style="text-align: center;">?</td> </tr> <tr> <td>DEEPALI</td> <td>25,000</td> <td>20%half-yearly</td> <td>2years</td> <td style="text-align: center;">?</td> </tr> </tbody> </table>				PRINCIPAL	RATE	TERM	COMPOUND INTEREST	RADHA	25,000	20% annually	2 years	?	DEEPALI	25,000	20%half-yearly	2years	?
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Q42.	Points are random and can be joined to form a shape. Plot (3,3) (5,7) (8,3) on the Cartesian plane. Join the points.  (i)Name the figure obtained.  (ii)What will be the area of the shape so formed?	(2)  (1)  (1)															