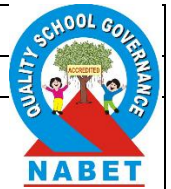




INDIAN SCHOOL DARSAIT
MODEL PAPER-1-YEARLY EXAMINATION
MATHEMATICS



Class: VIII

Max. Marks: 80

Time: 3hrs

General Instructions:

- (i) All questions are compulsory.
- (ii) Calculations should be shown in a working column on the right hand side.
- (iii) Section A : Questions 1-6 carry 1 mark each
Section B : Questions 7-12 carry 2 marks each
Section C : Questions 13-22 carry 3 marks each
Section D : Questions 23-30 carry 4 marks each.

Section -A

- | | | |
|---|--|---|
| 1 | How many vertices are there in an Octagonal prism ? | 1 |
| 2 | Write 0.00000023 in the standard form | 1 |
| 3 | Factorise : $b^2 - 16$ | 1 |
| 4 | Name the rational number that does not have a reciprocal. | 1 |
| 5 | What will be the unit digit of the cube of a number ending with 4? | 1 |
| 6 | An item marked at Rs 2000 is sold for Rs 1500. Find the discount given | 1 |

Section-B

- | | | |
|----|--|---|
| 7 | Solve $\frac{3x+5}{3x+4} = 5$. | 2 |
| 8 | A square park has area 3969 m^2 . What is the length of the side of the park? | 2 |
| 9 | Find the cube root of 3375 | 2 |
| 10 | A dealer purchased an old car For Rs.70000 and spent Rs.17500 on its repair. Due to lack of demand he had to dispose it at a loss of 12 % . What was the selling price of the car? | 2 |
| 11 | Simplify and express in power notation with positive exponents
$[(3^3)^{-2} \times 3^4] \div (3^2)^3$ | 2 |
| 12 | If 20 men consume a certain quantity of rice in 14 days, in how many days will 8 men consume the same quantity of rice? | 2 |

Section-C

- | | | |
|----|--|---|
| 13 | The internal measures of a cuboidal room are 12m X 8m X 4m. Find the cost of white washing all four walls of the room, if the cost of white washing is Rs 5 per m^2 . What will be the cost of whitewashing if the ceiling of the room is also whitewashed? | 3 |
|----|--|---|

- 14 A 5m 60cm high vertical pole casts a shadow 3m 20cm long. Find (at the same time) 3
- (i) The length of the shadow cast by another pole 10m 50 cm high
(ii) The height of a pole which casts a shadow 5m long

15 Prove that $(3x + 7)^2 - 84x = (3x - 7)^2$ 3

- 16 Draw a line through (3,4) and (4,3) .Find the coordinates of the points at which this line meets X axis and Y axis . 3

17 Factorise the expression and divide $\frac{9x^2(x^2+7x+10)}{3x(x+5)}$ 3

$$3x(x+5)$$

- 18 Simplify using appropriate properties 3

$$\frac{1}{2}x^{-\frac{7}{5}} - \frac{3}{4}x^{\frac{2}{3}} + \frac{2}{3}x^{\frac{1}{4}}$$

19 Solve : $5(2p - 1) + 3(4p + 3) = 5(4p - 1)$ 3

- 20 Find the smallest number by which 2925 must be divided to get a perfect square. Also, find the square root of the perfect square so obtained. 3

- 21 Is 1188 a perfect cube? If not by which smallest number 1188 should be multiplied to get a perfect cube? 3

- 22 Using Euler's formula find the unknown 3

Faces	-----	5
Vertices	12	6
Edges	18	-----

Section -D

23 Solve : $\frac{x-5}{2} - \frac{x-3}{5} = \frac{1}{2}$ 4

- 24 Seema invested Rs .6400 for 3 years at the rate of 10% per annum compounded annually. Sunali invested the same amount at the same rate for the same time but on simple interest. 4

Who gets more interest and by how much?

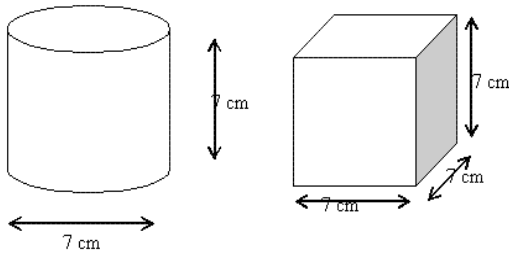
25 (a)Find the value using suitable identity : $(102)^2$. 4

(b) Find the following products:

(i) $x^3y(x^2 + y^2 - z^2)$ (ii) $(2x^2 + 5y^2)(6x^2 - 15y^2)$

26

4



Find which solid is having more surface area

27 The following table gives the quantity of an item and its cost.

4

Quantity (Kg)	5	10	15	20	30
Cost (Rs)	150	300	450	600	900

Draw a linear graph with suitable scales on the axes. From the graph, find the following.

- (a) The cost of 15 Kg of the item
- (b) The quantity of the item which can be bought for Rs 750.

28 The length and breadth of a rectangular field is in the ratio 5:3. The area of the field is 2160 sq m. If a fence is to be made at the rate of Rs 350 per metre, how much will it cost? 4

29 Simplify $\frac{3^{-4} \times 10^{-5} \times 25}{5^{-7} \times 6^{-4}}$: 4

30 Factorise the following: 4

- (i) $20a^3 - 25a^2b$
- (ii) $5xy - y^2 + 10xz - 2yz$
- (iii) $25a^2 + 40a + 16$