## INDIAN SCHOOL SOHAR

PERIODIC TEST II (2022-23)

## MATHEMATICS

## CLASS VIII

MAX. MARKS: 20
DATE: 16-01-2023

## General Instructions:

- This question paper has three sections A-C.
- Section A has 5 MCQs carrying 1 mark each.
- Section B has 3 questions carrying 2 mark each.
- Section C has 3 questions carrying 3 mark each.
- All questions are compulsory. However, an internal choice in one question of 1 mark, one question of 2 marks and one question of 3 marks has been provided.
- Draw neat figures wherever required.


## SECTION A (Each question carries 1 mark)

| $\begin{aligned} & \text { Q. } \\ & \text { No } \end{aligned}$ | Question | Marks |
| :---: | :---: | :---: |
| 1. | The product of $(3 x) \times(4 x) \times\left(-6 x^{3}\right)$ is <br> a) $\left(-72 x^{3}\right)$ <br> b) $\left(72 x^{4}\right)$ <br> c) $\left(-72 x^{5}\right)$ <br> d) $\left(72 x^{5}\right)$ | 1 |
| 2. | The value of $3 x\left(x^{2}+x+1\right)+5$ for $x=1$ is <br> a) 14 <br> b) 8 <br> c) 10 <br> d) 15 | 1 |
| 3. | The product of $(5-2 x) \times(3+x)$ is <br> a) $15-11 x-2 x^{2}$ <br> b) $15-x-3 x^{2}$ <br> c) $15+x-2 x^{2}$ <br> d) $15-x-2 x^{2}$ | 1 |
| 4. | The diagonals of a rhombus are 8.5 cm and 16 cm . Its area is <br> a) $136 \mathrm{sq} . \mathrm{cm}$ <br> b) $68 \mathrm{sq} . \mathrm{cm}$ <br> c) $680 \mathrm{sq} . \mathrm{cm}$ <br> d) $1360 \mathrm{sq} . \mathrm{cm}$ <br> (OR) <br> The total surface area of a cube of side 7 cm is <br> a) $49 \mathrm{sq} . \mathrm{cm}$ <br> b) $42 \mathrm{sq} . \mathrm{cm}$ <br> c) $294 \mathrm{sq} . \mathrm{cm}$ <br> d) $343 \mathrm{sq} . \mathrm{cm}$ | 1 |
| 5. | A tile is in the shape of a trapezium. Its parallel sides are 15.5 cm and 10.5 cm . The perpendicular distance between the parallel sides is 11 cm . Its area is <br> a) $143 \mathrm{sq} . \mathrm{cm}$ <br> b) $286 \mathrm{sq} . \mathrm{cm}$ <br> c) $145 \mathrm{sq} . \mathrm{cm}$ <br> d) $290 \mathrm{sq} . \mathrm{cm}$ | 1 |



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| SECTION A (Each question carries 1 mark) |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { Q. } \\ & \text { No } \end{aligned}$ | Question | Marks |
| 1. | A tile is in the shape of a trapezium. Its parallel sides are 15.5 cm and 10.5 cm . The perpendicular distance between the parallel sides is 11 cm . Its area is <br> a) $\quad 143 \mathrm{sq} . \mathrm{cm}$ <br> b) $286 \mathrm{sq} . \mathrm{cm}$ <br> c) $145 \mathrm{sq} . \mathrm{cm}$ <br> d) $290 \mathrm{sq} . \mathrm{cm}$ | 1 |
| 2. | The product of $(5-2 x) \times(3+x)$ is <br> a) $15-11 x-2 x^{2}$ <br> b) $15-x-3 x^{2}$ <br> c) $15+x-2 x^{2}$ <br> d) $15-x-2 x^{2}$ | 1 |
| 3. | The value of $3 x\left(x^{2}+x+1\right)+5$ for $x=1$ is <br> a) 14 <br> b) 8 <br> c) 10 <br> d) 15 | 1 |
| 4. | The diagonals of a rhombus are 8.5 cm and 16 cm . Its area is <br> a) $136 \mathrm{sq} . \mathrm{cm}$ <br> b) $68 \mathrm{sq} . \mathrm{cm}$ <br> c) $680 \mathrm{sq} . \mathrm{cm}$ <br> d) $1360 \mathrm{sq} . \mathrm{cm}$ <br> (OR) <br> The total surface area of a cube of side 7 cm is <br> a) $49 \mathrm{sq} . \mathrm{cm}$ <br> b) $42 \mathrm{sq} . \mathrm{cm}$ <br> c) $294 \mathrm{sq} . \mathrm{cm}$ <br> d) $343 \mathrm{sq} . \mathrm{cm}$ | 1 |


| 5. | The product of $(3 x) \times(4 x) \times\left(-6 x^{3}\right)$ is <br> a) $\left(-72 x^{3}\right)$ <br> b) $\left(72 x^{4}\right)$ <br> c) $\left(-72 x^{5}\right)$ <br> d) $\left(72 x^{5}\right)$ | 1 |
| :---: | :---: | :---: |
| SECTION B (Each question carries 2 marks) |  |  |
| 6. | The area of a trapezium shaped field is 480 sq. m , the distance between the parallel sides is 20 m . One of the parallel sides is 11 m . Find the other parallel side. | 2 |
| 7. | Hema borrowed Rs 10000 from Varsha for 3 years at $10 \%$ per annum compounded annually. Find the amount that Hema will have to pay at the end of 3 years. | 2 |
| 8. | Find the product of $(3 x y+5 y)(3 x y+5 y)$ using identities. <br> (OR) <br> Find the product of $(0.5 p-0.7 q)(0.5 p-0.7 q)$ using identities. | 2 |
| SECTION C (Each question carries $\mathbf{3}$ marks) |  |  |
| 9. | Subtract: $4 a(a+b+c)-3 b(a-b+c)$ from $5 c(-a+2 b+c)$ | 3 |
| 10. | Ravi deposits Rs 32000 in a bank which gives $5 \%$ per annum interest compounded half yearly. Find the interest and amount that he will receive after $11 / 2$ years. <br> (OR) <br> Manisha borrowed Rs 485000 from a bank to buy a car at the rate of $12 \%$ per annum compounded annually. What amount she has to pay at the end of 2 years to clear the loan? | 3 |
| 11. | A road roller takes 860 revolutions to move once over to level a road. Find the area of the road if the diameter of the road roller is 91 cm and length 1 m . <br> (Value of $\pi=\frac{22}{7}$ ). | 3 |

