

**BCM SCHOOL, BASANT AVENUE, DUGRI, LUDHIANA.**  
**FEBRUARY ASSIGNMENT**  
**CLASS- VIII (MATHEMATICS)**  
**TOPICS: MENSURATION**

**SECTION –A (MULTIPLE CHOICE QUESTIONS)**

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| 1. | The volume of a cube is $343 \text{ cm}^3$ . Its total surface area is<br>a) $196 \text{ cm}^2$ b) $49 \text{ cm}^2$ c) $294 \text{ cm}^2$ d) $147 \text{ cm}^2$   |
| 2. | How many bricks, each measuring $25 \text{ cm} \times 11.25 \text{ cm} \times 6 \text{ cm}$ , will be needed to build a wall $8\text{m}$ long, $6\text{m}$ high and $22.5\text{cm}$ ?<br>a) 5600                      b) 6000                      c) 6400                      d) 7200  |
| 3. | Assertion (A) –The total surface area of a cylinder of base radius $r$ and height $h$ is $2\pi r (r + h)$<br>Reasons (R) –The surface area formula is a mathematical solution to find the total area of any three-dimensional object occupied by all of its surfaces<br>a) Both A and R are true and R is the correct explanation of A<br>b) Both A and R are true but R is not the correct explanation of A<br>c) A is true but R is false<br>d) A is false but R is true |

**SECTION – B( 2 MARKS QUESTIONS)**

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| 4. | The area of the trapezium is $405 \text{ cm}^2$ . Its parallel sides are in the ratio $4 : 5$ and the distance between them is $18\text{cm}$ . Find the length of each parallel side. |
| 5. | The area of a rhombus is $360 \text{ cm}^2$ . If one of its diagonal is $40 \text{ cm}$ , find the other diagonal.  |

**SECTION – C (3 MARKS QUESTIONS)**

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| 6. | How many cubic meters of earth must be dug out to sink a well which is $16\text{m}$ deep and which has a radius of $3.5\text{m}$ . If the earth taken out is spread over a rectangular plot of dimensions $25\text{m} \times 16\text{m}$ , what is the height of the platform so formed. |
| 7. | The dimensions of a cuboid are in the ratio $2 : 3 : 4$ and its total surface area is $468 \text{ m}^2$ . Find the dimensions.   |

**SECTION – D (5 MARKS QUESTIONS)**

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| 8. | Find the length of the longest pole that can be put in a room of length $10\text{m}$ , breadth $10\text{m}$ and height $5\text{m}$ .  |
| 9. | A metal cube of volume $2933 \text{ cm}^3$ is melted and three smaller cubes are made out of it. If the edges of two smaller cubes are $5\text{cm}$ and $4\text{cm}$ , find the edge of the third smaller cube. |

**SECTION – E (CASE STUDY)**

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| 10. | <p>Water is one of the most commonly used substances on our Earth. Water supply in urban areas is always short against the real demand. This scenario requires an alternative source to bridge the gap between demand and supply. Rain water is the purest form of water and easily available. Neelkanth society, Pune, has also installed one cubical tank whose edge is to <math>200\text{m}</math> to store rain water using roof top.</p> <p>a) What is the total surface area of the cubical tank?</p> <p style="text-align: center;">OR</p> <p>How much quantity of water can be stored in this cubical tank?</p> <p>b) What will be the cost of painting all the walls of the tank if it cost Rs. <math>10/\text{m}^2</math>?</p> <p>c) What will be the cost of painting cubical tank at the cost of Rs. <math>15/\text{m}^2</math> leaving upper and lower base?</p> |
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