INDIAN SCHOOL AL WADI AL KABIR

Post Mid-Term Examination (2025-26)

Class: VIII Sub: MATHEMATICS Max Marks: 30

Date: 30/11/2025 Set – 2 (ANSWER KEY) Time: 1 hour.

| **Section A**: Multiple Choice Question (Q.1 to Q.8) of **1** mark each | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **1.** | The area of trapezium with parallel sides 12cm and 18cm and the distance between the parallel sides 7cm is: | | | | | | | |
| | **A** | | **B** | | **C** | $105cm^2$ | **D** | |
| **2.** | The one's place digit in cube of 142 is | | | | | | | |
| | **A** | 8 | **B** | | **C** | | **D** | |
| **3.** | The lateral surface area of cube is $484cm^2$. Its side length is: | | | | | | | |
| | **A** | | **B** | | **C** | | **D** | 11cm |
| **4.** | Aravind took membership in a tennis club. The charge for using the tennis court for 3 hours is ₹180. How money does he have to pay if he uses the tennis court for 7 hours? | | | | | | | |
| | **A** | | **B** | ₹420 | **C** | | **D** | |
| **5.** | Which of the following the numbers is a perfect cube? | | | | | | | |
| | **A** | | **B** | 64000 | **C** | | **D** | |
| **6.** | If x varies directly as y and x=21 when y=27, find x when y=63 | | | | | | | |
| | **A** | | **B** | | **C** | 49 | **D** | |
| **7.** | The number of cubes of side length 7cm can be placed in a cuboidal box of dimensions 42cm×35cm×28cm is: | | | | | | | |
| | **A** | 120 | **B** | | **C** | | **D** | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **8.** | The volume of a cuboid is 738 $cm^3$, and its base area is 82 $cm^2$.The height of the cuboid is: | | | | | | | |
| | **A** | | **B** | | **C** | 9cm | **D** | |
| | **Section B**: **Source based questions** (Q.9 to Q.12) of 1 mark each | | | | | | | |
| **9.** | If 864 = 2×2×2×2×2×3×3×3, The smallest number by which 864 to be multiplied to get a perfect cube | | | | | | | |
| | **A** | | **B** | | **C** | 2 | **D** | |
| **10.** | How many beads must be added to reach the next perfect cube 1000? | | | | | | | |
| | **A** | 136 | **B** | | **C** | | **D** | |
| **11.** | The worker removed the excess beads and arranged 729 beads in the box. The $\sqrt[3]{729}$ is: | | | | | | | |
| | **A** | | **B** | 9 | **C** | | **D** | |
| **12.** | The value of $\frac{\sqrt[3]{512}}{\sqrt[3]{64}} \times \sqrt[3]{125}$ is: | | | | | | | |
| | **A** | | **B** | | **C** | 10 | **D** | |
| | **Section C**: Long Answer Questions (Q13 to Q.16) | | | | | | | |
| **13.** | A=168$m^2$. $d_1$=16m, $d_2$=?<br>168= $\frac{1}{2}$×16× $d_2$ ( ½ )<br>= 8× $d_2$ ( ½ ) $d_2$ = 168/8 =21 cm ( ½) + (½ ) | | | | | | | |
| **14.** | 2744 = 2×2×2×7×7×7 first 3 factors 1m and next 3 factors (½ ) | | | | | | | |

| | |
|---|---|
| 2 | 2744 |
| 2 | 1372 |
| 2 | 686 |

| | | |
|---|---|---|
| | 7 | 343 |
| | 7 | 49 |
| | 7 | 7 |
| | | 1 |

$\sqrt[3]{2744}$ = 2 ×7 = 14 (½ )

**15.** r= 7cm h= 32cm

V= $\pi r^2 h = \frac{22}{7}$×7×7×32=4928cm$^3$ (½ +½ +½ +½)

Total volume = 50×4928= 246400cm$^3$ (½ +½ )

**16.**

| | | | |
|---|---|---|---|
| No. of students (x) | 6 | 16 | x |
| Space in m$^2$(y) | 21 | y | 84 |

Direct proportion, $\frac{x}{y}$ =constant table (½)

| | |
|---|---|
| 6×y= 16×21 (½)<br>Y = $\frac{16\times21}{6}$ = 56 m$^2$ (½+½) | 21×x= 6×84 (½)<br>x = $\frac{6\times84}{21}$ = 24 students (½) |

**Section D**: Long Answer Question of 4 marks &Case study (Q.17 & Q.18)

**17.** L= 120 cm b= 45cm h= 90 cm

TSA= 2 × (lb +bh + lh) =2× (120 ×45 +45×90 +120×90) (1m)

= 2× (5400 +4050+10800) (1½m)

= 2×20250 (½)

= 40500 cm$^2$ (½)

Area of 5 cabinets= 40500 ×5 = 202500cm$^2$ (½)

| | | | |
|---|---|---|---|
| **18.** | **Case Study** | $3\times a = 5\times 750$ (½)<br>$a = \frac{5\times 750}{3} = 1250$ (½) | $750\times b = 3\times 2250$ (½)<br>$b = \frac{3\times 2250}{750} = 9$ (½) |
| | | $3\times c = 10\times 750$ (½)<br>$c = \frac{10\times 750}{3} = 2500$ (½) | $750\times 9 = 3\times 3000$ (½)<br>$d = \frac{3\times 3000}{750} = 12$ (½) |