

INDIAN SCHOOL SOHAR
SUMMATIVE ASSESSMENT 2
MATHEMATICS

STD: VIII
16 -03-16

Marks: 60
Time: 2 Hours

General Instructions:

Do the calculations in the working column

Give necessary formulae and steps wherever required

This question paper consists of **24** questions divided into four sections **A, B, C** and **D**

Section A comprises of **6** questions of **1mark** each

Section B comprises of **6** questions of **2mark** each

Section C comprises of **6** questions of **3mark** each

Section D comprises of **6** questions of **4mark** each

SECTION A

1. Volume of a cylinder of radius r and height $2r$ is

A. $2\pi r$

B. πr^3

C. $2\pi r^2$

D. $2\pi r^3$

2. If two quantities a and b vary directly, then

A. $\frac{a}{b} = \text{constant}$

B. $a \times b = \text{constant}$

C. $a + b = \text{constant}$

D. $a - b = \text{constant}$

3. The value of $(m^3 + m^2 - m) - 6m$ at $m = -1$ is

A. 6

B. 7

C. 5

D. -5

4. The value of $(2^0 + 3^0 + 6^0)^{-3}$ is

A. $\frac{1}{9}$

B. 9

C. $\frac{1}{27}$

D. 27

5. A point whose x-coordinate is a non-zero number and y-coordinate is zero will

A. lie on x-axis

B. lie on both the axis

C. lie on y-axis

D. lie on neither of the axis

6. $(a - 4)(a - 6) =$

A. $a^2 - 10$

B. $a^2 + 10$

C. $a^2 + 10a + 24$

D. $a^2 - 10a + 24$

SECTION B

7. Subtract $2y(x - y - z)$ from $5z(2y + z - x)$

8. Factorize: $m^4 - 625$

9. If I read 8 pages daily, I can read a book in 15 days. How many days will I take to finish the book, if I read 12 pages daily ?

10. By what number should $\left(\frac{4}{3}\right)^{-2}$ be multiplied to get $\left(\frac{8}{15}\right)^{-1}$?

11. Find the compound interest on Rs. 800 at 5% per annum for 2 years.

12. Plot the points (0, 5), (1, 4), (3, 2) and (0, 7) on a graph paper.

SECTION C

13. An army camp of 1200 men has provisions for 25 days. A reinforcement of 300 men arrive and join the camp. For how many days will the food last?
14. A rectangular piece of paper 11cm x 4cm is folded without overlapping to make a cylinder of height 4 cm. Find volume of the cylinder.
15. A box is 180 cm long, 80 cm wide and 60 cm high. How many soap cakes can be put in it if each cake measures 6 cm by 4.5 cm by 40 mm ?
16. Find the compound interest when a sum of Rs. 10,000 is invested for 1 year and 3 months at 8 % p.a. compounded annually.
17. Factorize $25 - 4x^2 - 12xy - 9y^2$
18. Find p if $\left(\frac{3}{5}\right)^{2p} \times \left(\frac{9}{25}\right)^3 = \left(\frac{3}{5}\right)^{-2}$

SECTION D

19. Find the volume and curved surface area of a cylinder whose height is 0.1 m and diameter of the base is 2.8 cm
20. A man bought two horses for Rs. 30,000 each. He sold one at a profit of 3% and the other at loss of 5% . Find the overall profit or loss.
21. A train is moving at a uniform speed of 150 km in two hours. How far will it travel in 20 minutes?
22. Evaluate using identities : i) 81^2 ii) 105×97
23. Divide $66(z^4 - 5z^3 - 24z^2)$ by $22z(z - 8)$
24. The following table gives information regarding the cost of rice per kg.

Weight (kg)	10	15	20	25
Cost (Rs)	500	750	1000	1250

- i) Plot a graph for this information.
- ii) How much rice can be purchased for Rs. 1500? Find the solution using graph.

***** THE END *****