



INDIAN SCHOOL SOHAR
SUMMATIVE ASSESSMENT-II, 2016-17
SUBJECT: MATHEMATICS

CLASS-VIII
DATE: 14.03.17

MAXIMUM MARKS: 90
TIME: 3 Hours

GENERAL INSTRUCTIONS:

- All questions are compulsory.
- The question paper consists of **31** questions divided into 4 sections A,B,C,D. Section A comprises of **4** questions of **1 mark** each, section B comprises of **6** questions of **2 marks** each, section C comprises **10** questions of **3 marks** each and section D comprises of **11** questions of **4 marks** each .
- There is no overall choice in the question paper.
- Use of calculators not permitted.

SECTION A

(Questions 1 to 4 carry one mark each)

1. On a rainy day, only 36 students out of 45 came to a class. What percent were absent?
2. Write the number in usual form : 3×10^{-5}
3. If 12 meter of wire cost Rs 24, then what will be the cost of 8 meter wire?
4. Find the area of rectangle with the pairs of monomials as their length and breadth respectively (3mn, 4np).

SECTION B

5. The list price of a dining table is Rs 9700. If a sales tax of 6% is to be charged on it, how much one has to pay to buy the dining table?
6. Using identities, evaluate 196×206 .
7. A cuboid is of dimensions 60 cm x 54 cm x 30 cm. How many small cubes with side 6 cm can be placed in the given cuboid?
8. Write the following numbers in standard form:-
(i) 0.000000564 (ii) 21600000
9. If a labourer earns Rs 672 per week, how much will he earn in 18 days?
10. Plot (0, 2), (3, 4), (5, 1). Join the points and name the figure.

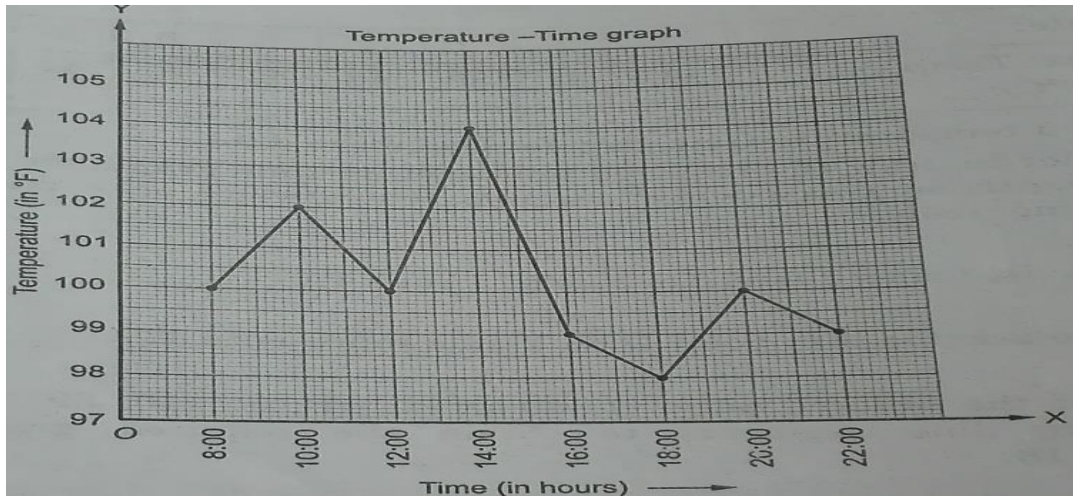
SECTION C

11. I purchased a hair-dryer for Rs 5400 including 8% VAT. Find the price before VAT was added?
12. Subtract $3a(a+b+c)-2b(a-b+c)$ from $4c(-a+b+c)$
13. Multiply $(3x^2-2x-1)$ by $(2x^2+x-5)$.

PTO

14. The curved surface area of a right circular cylinder of height 14 cm is 88 cm^2 . Find the diameter of the base of the cylinder.

15. Given below is the temperature chart of a patient.



(i) Find the temperature of the patient at 9 hours and 14 hours.

(ii) At what time is the temperature (a) highest? (b) lowest?

(iii) Is it a linear graph? Justify briefly.

16. In a slogan writing competition in a school, Ramesh wrote “A drop of water is worth more than a sack of gold to a thirsty man” on a trapezium shaped cardboard. If the lengths of parallel sides of trapezium are 0.6m and 80 cm and the distance between them is 50 cm, find the area of the cardboard. Write **one** suggestion to save water.

17. By what number should $(-15)^{-2}$ be divided so that the quotient may be equal to $(-5)^{-2}$?

18. An electric pole, 14m high casts a shadow of 10m. Find the height of a tree that casts a shadow of 15m under similar condition.

19. Factorize $2p^2 - 17p - 30$.

20. Divide $z(5z^2 - 80)$ by $5z(z + 4)$.

Section D

21. The population of a place increased to 54,000 in 2003 at the rate of 5% per annum.

(i) Find the population in 2001.

(ii) What would be its population in 2005?

22. A milkman sold two of his buffalos for Rs.20, 000 each. On one he made a gain of 5% and on the other a loss of 10%. Find his overall gain or loss.

23. Show that:

(i) $(4pq + 3q)^2 - (4pq - 3q)^2 = 48 pq^2$

(ii) $(a-b)(a+b) + (b-c)(b+c) + (c-a)(c+a) = 0$

24. Solve the following

(i) If $x - \frac{1}{x} = 3$, evaluate $x^2 + \frac{1}{x^2}$

(ii) If $a^2 + b^2 = 34$ and $ab = 15$ evaluate $a+b$

25. The floor of a building consists of 3000 tiles which are rhombus shaped and each of its diagonal is 45cm and 30 cm in length. Find the cost of polishing the floor at the rate of Rs 4 per m^2 .

26. Simplify $(3^{-5} \times 10^{-5} \times 125) \div (5^{-7} \times 6^{-5})$

27. One gas cylinder is used to cook food for a family of 12 people for 60 days. If 6 more people join the family, how long the gas cylinder last?

28. Factorize

(i) $p^4 - 81$

(ii) $a^2b^2 - a^2 - b^2 + 1$

29. Factorize $25a^2 - 4b^2 + 28bc - 49c^2$

30. Draw the graph of the following

Side of square(in cm)	2	3	3.5	5	6
Perimeter	8	12	14	20	24

Find the solution using graph

(i) What will be the perimeter when one side of square is 4 cm?

(ii) Find out the length of one side of a square when perimeter is 10.

31. 1000 soldiers in a fort had enough food for 20 days. But some soldiers were transferred to another fort and the food lasted for 25 days. How many soldiers were transferred?
