Kendriya Vidyalaya – Mathematics
PERIODIC TEST – II
MATHEMATICS – VIII, SESSION: 2018 – 19

Max. Marks: 40 **Time: 1 Hr and a Half**

Note: There are four sections in this Question paper. Section A, B, C and D. Section A contains 4 Questions of 1 mark each, Section B contains 4 Questions of 2 marks each, Section C contains 4 Questions of 3 marks each and Section D contains 4 Questions of 4 marks each.

SECTION –A

1. Find the product of $12x^{23} \times 2x^{15} \times 3x^{13}$
2. Write Euler's formula for Solids.
3. Simplify the following and express the result in power notation with positive exponent.
$$(-3)^7 \div (-3)^{12}$$
4. Write the equation for Direct Proportion and Inverse Proportion.

SECTION –B

5. Add $p(p-q), q(q-r) \wedge r(r-p)$.
6. Can a polyhedron have 10 faces, 20 edges and 15 vertices? Why or Why not?
7. Find the value of
$$[\frac{1}{2}]^{-2} + [\frac{1}{3}]^{-2} + [\frac{1}{4}]^{-2}$$
8. The parallel sides of a trapezium are 1.5 m and 1.2 m and perpendicular distance between parallel sides is 0.84 m . Find the area of trapezium.

SECTION –C

9. Subtract $3a(a+b+c) - 2b(a-b+c) ¿ 4c(-a+b+c)$
10. The floor of a building consists of 3000 tiles which are rhombus shaped and each of its diagonals are 45 m and 30 m in length. Find the total cost of polishing the floor , if the cost per m^2 is Rs.17 .
11. Express the following in standard form.
    (i) 0.00000009123
    (ii) 8166.82
    (iii) 0.00000000000000023
12. A loaded truck travels 17 km in 35 minutes. If the speed remains the same, how far can it travel in 5 hours?

SECTION –D

13. Using Identities, evaluate
    (i) 1.05×9.5
    (ii) $(9.1)^2$
14. Simplify
$$\frac{35^{-5} \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}}$$
15. Water is pouring into a cuboidal reservoir at the rate of 60 litres per minute. If the volume of reservoir is $108 m^3$, find the number of hours it will take to fill the reservoir.
16. Two persons could fit new windows in a house in 12 days.
    (i) One of the person fell ill before the work started. How long would the job take now?
    (ii) How many persons would be needed to fit the window in one day?