

Basava International School
Yearly Examination 2018-19 Set-3
Class 8 Mathematics

Time : 3hrs

M.M. : 80

General Instructions :

- i. All questions are compulsory.
- ii. The question paper consists of 30 questions divided into 4 Sections A, B, C and D.
- iii. Section-A comprises of 6 questions of 1 mark each. Section-B comprises of 6 questions of 2 marks each. Section -C comprises of 10 questions of 3 marks each and Section -D comprises of 8 questions 4 marks each.
- iv. Use of calculator is not permitted.

SECTION A

1. Find the cube of $-1\frac{1}{5}$
2. $31z5$ is a multiple of 9 where z is a digit, what is the value of z .
3. Express 11^2 as the sum of two consecutive integers.
4. Factorise : $27a^3b^3 - 18a^2b^3 + 75a^3b^2$
5. Find the sum of interior angles of a 12 sided polygon.
6. What percent is 300 g of 2 kg.

SECTION B

7. What must be added to $5x^2 - 3x + 1$ to get $3x^3 + 7x^2 + 8$
8. Find the digits A and B in the multiplication :
$$\begin{array}{r} AB \\ \times 3 \\ \hline CAB \end{array}$$
9. Find the cube root of 12167 by estimation method.
10. Reena bought a fan at 1080 including 8% VAT. Find the price of fan before VAT was

added.

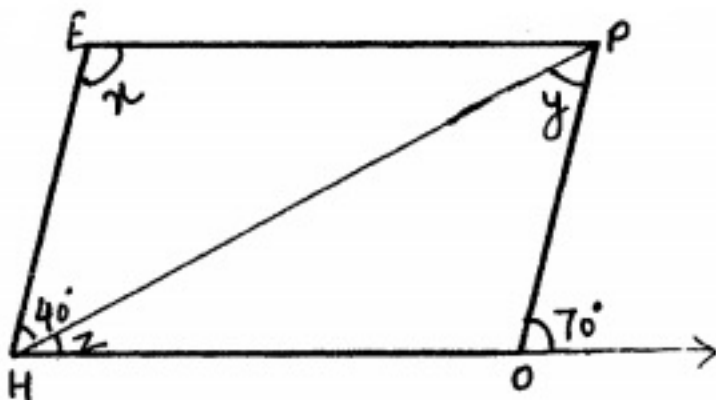
11. Plot the following points and verify if they lie on the line.
(2, 6)(3, 5) (5, 3) (6, 2).
12. Using Euler's formula, find the number of edges if a polyhedron has 8 faces and 8 vertices.

SECTION C

13. Suppose 2 kg of sugar contains 9×10^6 crystals. How many sugar crystals are there in 5 kg of sugar.
14. Factorise : $m^2 - 23m + 42$
15. On selling a bag for 704, a shopkeeper suffers a loss 12%. At what price he sell it to gain 7.5%.
16. Show that: $(4x + 7y)^2 - (4x - 7y)^2 = 112xy$
17. Find the smallest number by which 3072 must be multiplied to obtain perfect cube.
18. The perimeter of a parallelogram is 150 cm. One of its sides is greater than the other by 25 cm. Find the length of the sides of the parallelogram.
19. Find the square root of 288369 by long division method.
20. If ratio between an exterior and interior angle of a regular polygon is 1 : 5 then find the number of sides of regular polygon.
21. Construct a rectangle such that one side is 5 cm and one diagonal is 6.8 cm.
22. The area of trapezium is 540 cm^2 , if the ratio of its parallel sides is 7 : 5 and the distance between them is 18 cm. Find the length of parallel sides.

SECTION D

23. Find the least number that must be subtracted from 1989 to get a perfect square. Also, find the square root of perfect square.
24. I borrowed Rs.12000 from Jamshed at 6% per annum Simple Interest for 2 years. Had I borrowed this sum at 6% per annum Compound interest. What extra amount would I have to pay.
25. Given figure HOPE is a parallelogram, find the measures of angles x, y, z.



26. Construct a quadrilateral ABCD given that $BC = 5\text{cm}$, $CD = 3.5\text{ cm}$, $\angle B = 60^\circ$, $\angle C = 90^\circ$ and $\angle D = 120^\circ$.
27. In a building there are 24 cylindrical pillars. The radius of each pillar is 28 cm and height is 4m. Find the total cost of painting the curved surface area of all the pillars at the rate of Rs. 8 per m^2 .

28. Using suitable identities, find the products of the following :

- 9.8^2
- 95×103

29. The following table shows the interest on deposits for a year.

Plot a graph to show the data

Deposits in (Rs.)	1000	2000	3000	4000	5000
Simple Interest in (Rs.)	80	160	240	320	400

- Does the graph passes through the origin.
 - Use the graph to find interest on Rs.2500 for a year
30. Two persons could fit new windows in a house in 3 days.
- One of the persons fell ill before the work started. How long would the job take now.
 - How many persons would be needed to fit the windows in one day.