



INDIAN SCHOOL SOHAR
TERM II EXAMINATION (2017-2018)
MATHEMATICS

STD VII

DATE : 11 - 03 - 2018

Marks: 80

Time: 3 Hours

General Instructions:

All questions are compulsory. The question paper consists of 30 questions divided into four sections A, B, C & D. Section A comprises 6 questions each carries 1 mark, Section B comprises 6 questions of 2 marks, Section C comprises 10 questions of 3 marks & Section D comprises 8 questions of 4 marks.

Do the calculations in the working column. Give necessary formulae and steps wherever required.

SECTION A

1. Find the value of $[(-16) \div (-2)]$.
2. 7 times a number decreased by 3 equal to 32. Write the equation.
3. If the area of a square with side x is equal to the area of a triangle with base x , what is the altitude of the triangle?
4. Write the standard form of $\frac{-3}{-15}$.
5. If $2^x = 8$, then find the value of x .
6. If $\triangle ABC \cong \triangle DEF$, then $AC = \underline{\hspace{2cm}}$

SECTION B

7. Find the value of $(5^0 + 7^0) \div (2^0 + 3^0)$.
8. Solve the equation: $48 = 3 + 5(t + 2)$
9. What is the area of a square park whose perimeter is 360 m.
10. What number should be subtracted from $\frac{-7}{8}$ so as to get $\frac{5}{12}$?
11. What per cent of 750 is 90?
12. The product of three integers is -600 . If two of them are -15 and 10 , then find the third integer.

SECTION C

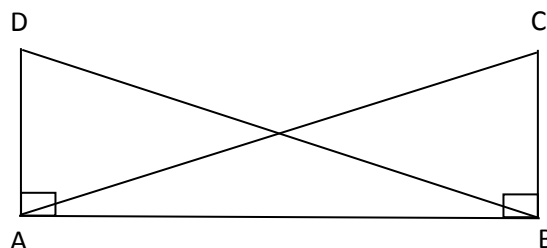
13. Construct $\triangle ABC$ such that $AB = 3.5$ cm, $BC = 5$ cm and $AC = 6.5$ cm.
14. Express 324×125 as product of powers of their prime factors.
15. Simplify the expression $3(x + 4) - 5x - 6$. And find its value when $x = 2$.

16. In a parallelogram ABCD, $AB = 6$ cm and $BC = 4$ cm. The height corresponding to the base CD is 3 cm. Find
- the area of the parallelogram.
 - the height corresponding to the base AD.

OR

Diameter of a circular garden is 9.8 m. Find its area and circumference. ($\pi = \frac{22}{7}$)

17. Manjul is a wholesale dealer of fruits. He bought a basket of oranges for Rs.750. When he found that some oranges were rotten, instead of selling the entire basket of oranges to a retailer, he repacked the good oranges in the basket and sold the basket for Rs.600.
- Find the loss per cent in the deal.
 - What quality can you relate with Manjul?
18. A vegetable burger from a school canteen costs Rs.14 more than the money spent to make two homemade sandwiches.
- Write the expression for the cost of vegetable burger.
 - If the money required to make the sandwich is Rs.5.75, find the cost of the burger.
 - Athul's mother packs sandwiches for him every day so that he avoids food from outside. Give your view on the value of family security.
19. In a competitive examination, 6 marks are awarded for every correct answer and 3 marks are deducted for every wrong answer and 0 mark is given for not answering a question. There are 12 questions for each candidate to answer. Prithvi attempts 10 questions and gets 4 correct answers. What is his score?
20. Answer the following:
- Simplify and write the exponential form of $[(7^3)^2 \times 7^2] \div 7^4$.
 - Express the number 7,085,000,000,000 in standard form.
 - Write the expansion of 7,204,005 by expressing powers of 10 in the exponential form.
21. In fig. $DA \perp AB$, $CB \perp AB$ and $AC = BD$.



- (a) State the three pairs of equal parts in $\triangle DAB$ and $\triangle CBA$.
 (b) Is $\triangle DAB \cong \triangle CBA$? Give reasons.
 (c) Is $AD = BC$? Give reasons.

OR

If $\triangle PQR \cong \triangle YXZ$ under the correspondence $PQR \leftrightarrow YXZ$, write all the corresponding congruent parts of the triangle.

22. Find four rational numbers between $\frac{-4}{5}$ and $\frac{-3}{4}$.

OR

Evaluate: $\left[\frac{-6}{25} \times \frac{-50}{24} \right] \div \left[\frac{5}{9} \times \frac{-81}{30} \right]$

SECTION D

23. Simplify and write in exponential form: $\frac{(11x)^5 \times (6y)^4}{(22y)^4 \times (3x)^2}$

OR

Simplify: $\frac{125 \times 10^3 \times (x^3)^2}{8 \times 5^2 \times x^2}$

24. The auditorium of a school is 60 m long and 45 m wide. It has a verandah 3 m wide all around. How much area is covered by verandah?

OR

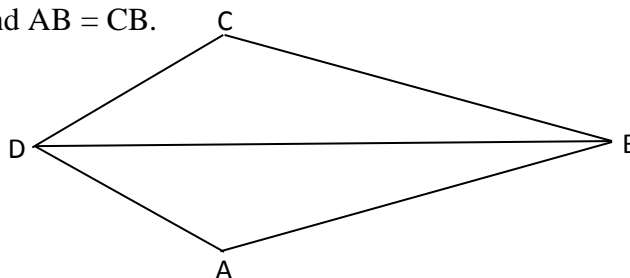
There are two cross roads, each of width 4 m running at right angles and parallel to the sides of a square park of side 72 m. Find the area of the path.

25. Construct $\triangle PQR$ such that $QR = 7$ cm, $QP = 4$ cm and $\angle Q = 60^\circ$.

OR

Construct $\triangle ABC$ in which $\angle C = 90^\circ$, $AC = 5$ cm and $AB = 6$ cm.

26. In fig. $AD = CD$ and $AB = CB$.



- (a) State the three pairs of equal parts in $\triangle ABD$ and $\triangle CBD$.
(b) Is $\triangle ABD \cong \triangle CBD$? Why or why not?
(c) Does BD bisect $\angle ABC$? Give reasons.
27. John deposited Rs.35000 in a finance company which pays 14% interest per year. Find the amount he will receive after 4 years.

OR

- A family spends Rs.7500 per month to buy vegetables, fruits and groceries. The ratio of the amount the family spends for buying them is 2 : 3 : 7, respectively. Find the money spend for each category.
28. From the sum of $4a + b + c$ and $9a - c$, subtract the sum of $18a - b - c$ and $14a + 2b + c$.
29. (a) Compare the following rational numbers: $\frac{-11}{15}$ and $\frac{-2}{3}$.
(b) Find the sum: $\frac{7}{9} + \frac{-5}{6} + \frac{3}{15}$
30. Pinky's mother's age is 4 years more than 3 times Pinky's age. Find Pinky's present age, if her mother is 37 years old. Also find Pinky's age and her mother's age after 10 years.

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