

DEVAMATHA CMI PUBLIC SCHOOL
ANNUAL EXAMINATION 2017 -18
MATHEMATICS

Std. VII

Time : 3 h.
Marks : 80

General Instructions :

1. All questions are compulsory.
2. Question numbers 1 to 10 carry 1 mark each.
3. Question numbers 11 to 20 carry 2 marks each.
4. Question numbers 21 to 30 carry 3 marks each.
5. Question numbers 31 to 35 carry 4 marks each.

PART - A

Choose the correct answer from the options given below :

(1x10=10)

1. The standard form of 5985.3 is :
a) 5.9853×10^3 b) 5.9853×10^4 c) 5.9853×10^5 d) 59.853×10^3
2. The number of lines of Symmetry for an Equilateral Triangle is :
a) 0 b) 1 c) 3 d) 2
3. The value of 'a' in $\frac{a}{5} = \frac{7}{15}$ is :
a) $\frac{7}{2}$ b) $\frac{7}{3}$ c) $\frac{2}{7}$ d) $\frac{3}{7}$
4. If $\triangle XYZ \cong \triangle PQR$, then which pair of sides are equal?
a) $\overline{XY} = \overline{PQ}$ b) $\overline{XZ} = \overline{PQ}$ c) $\overline{YZ} = \overline{PR}$ d) $\overline{XZ} = \overline{QR}$
5. Ram had ₹ 2000 with him. He spent ₹ 300 out of it. What percent of money he spent?
a) 14% b) 16% c) 15% d) 17%
6. $(-1)^{13} =$ _____.
a) 0 b) -1 c) 1 d) 13

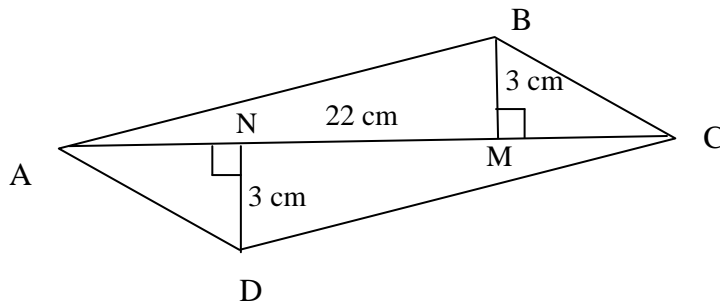
7. If $5:55 = 555:x$, the value of x is _____.
- a) 6000 b) 7000 c) 6105 d) 5002
8. The value of $100-10x$, when $x = 2$.
- a) 90 b) 80 c) 70 d) 18
9. If the area of a Triangle is 36cm^2 and its height is 3 cm then its base is _____.
- a) 12 cm b) 24 cm c) 26 cm d) 16 cm
10. Which of the following pairs of rational numbers are equal?
- a) $\frac{-9}{12}, \frac{8}{-12}$ b) $\frac{-16}{20}, \frac{20}{-25}$ c) $\frac{-7}{21}, \frac{3}{9}$ d) $\frac{-8}{-14}, \frac{13}{21}$

PART - B

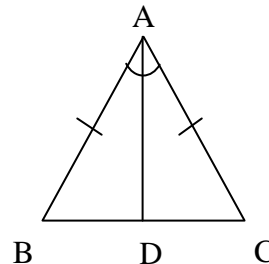
(10x2=20)

11. Write 4 Rational Numbers between $\frac{-5}{7}$ and $\frac{-3}{8}$.
12. ₹ 7000 is borrowed at 3.5% rate of interest p.a. borrowed for 2 years. Find the amount to be paid at the end of the second year.
13. What should be added to $5p + 4q - r$ to get the sum $4q - r$?
14. Construct a ΔLMN in which $LM = 6$ cm, $MN = 3$ cm, $LN = 5$ cm.
15. If $\Delta XYZ \cong \Delta RPS$, write all the corresponding congruent parts of the triangles under the correspondence $XYZ \leftrightarrow RPS$.
16. An article was bought for ₹ 800 and sold at a profit of 8%. Find the Selling Price.
17. The sum of three times a number and 11 is 32. Find the number.
18. Simplify and write the answer in Exponential form:
- (1) $(6^2 \times 6^4) \div 6^3$
- (2) $((2^2)^3 \times 3^6) \times 5^6$
19. How many times the wheel of radius 28 cm must rotate to go 352 m? (Take $\pi = \frac{22}{7}$).
20. Express the following in Exponential Notation :
- (a) 432 (b) 125

21. Draw a line PQ, take a point R outside it. Through R, draw a line parallel to PQ using ruler and compass only.
22. Solve : a) $12p - 5 = 25$
 b) $3(n - 7) = -24$
 c) $\frac{20p}{3} = 40$
23. Find Mean, Median, Mode of the given data :
 20, 30, 44, 50, 60, 70, 80, 30
24. Find the value of the given Expressions for $a = 3$, $b = 2$
 a) $7a - 4b$
 b) $a + b$
 c) $a^2 + 2ab + b^2$
25. Find the area of the Quadrilateral ABCD, where $AC = 22$ cm, $BM = 3$ cm, $DN = 3$ cm and $BM \perp AC$, $DN \perp AC$.



26. $AB = AC$ and AD is the bisector of $\angle BAC$.
- i) State 3 pairs of equal parts in $\triangle ADB$ and $\triangle ADC$.
- ii) Is $\triangle ADB \cong \triangle ADC$? Why?
- iii) Is $\angle B = \angle C$? Why?



27. Find the value of :

1) $\frac{-7}{9} + \frac{3}{4}$

2) $\frac{1}{5}$ from $\frac{2}{3}$

28. Find the Profit or Loss Percent :

1) A Radio which costs ₹ 400 is sold for ₹420.

29. The Area of a Square and a Rectangle are equal. If the side of the square is 40 cm and the breadth of the Rectangle is 25 cm. Find the length of the rectangle. Also find the perimeter of the Rectangle.

30. Simplify :

i) $(30ab + 12b + 14a) - (24ab - 10b - 18a)$

ii) $(3x + 5y - 4) + (2x - 5y + 7)$

PART - D

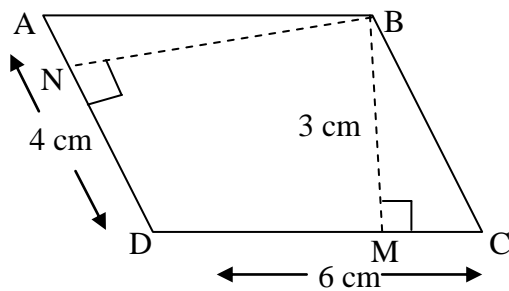
(4x5 =20)

31. Construct a $\triangle DEF$ in which $EF = 5.2$ cm, $m \angle E = 30^\circ$ and $m \angle F = 90^\circ$

32. The two sides of a parallelogram are 6 cm and 4 cm. The height corresponding to the base CD is 3 cm. Find the :

i) Area of the Parallelogram ABCD

ii) the height BN, corresponding to the base AD.



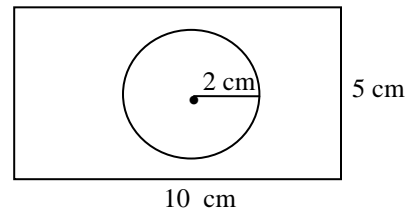
33. Simplify :

(1) $\frac{2 \times 3^4 \times 2^5}{9 \times 4^2}$

(2) $\frac{-15}{26} \div \frac{5}{13}$

34. The following figure represents a Rectangular lawn with a circular flower bed in the middle.
Find :

- (1) the Area of the whole land
(2) the Area of the flower bed.
(3) the Circumference of the flower bed
(4) the Area of the lawn excluding the Area of the flower bed.
($\pi = 3.14$)



35. The table given below gives the marks of 6 students of a class in a Surprise test and a scheduled test on the topic Algebra.

Students	Marks in Surprise test	Marks in scheduled test
Madhu	14	17
Sruthy	16	20
Tobith	12	16
Preejo	18	18
Arun	17	20
Sneha	13	19

Represent the given data in a Double Bar Graph.

- (1) Who achieved same mark in both tests?
