DEVAMATHA CMI PUBLIC SCHOOL

ANNUAL EXAMINATIONS 2017 - 2018

MATHEMATICS

Std. VI   Marks: 80

Time: 3hrs.

General Instructions :

1. All questions are compulsory.
2. Question paper consists of 35 questions.
3. Section A contains 10 questions of 1 mark each, which are multiple choice questions.
4. Section B contains 10 questions of 2 marks each.
5. Section C contains 10 questions of 3 marks each.
6. Section D contains 5 questions of 4 marks each.

Section A

Choose the correct answer from the options given below: (1x10=10)

1. Which one of the following triangles has no line of symmetry?

   (Scalene triangle,   Equilateral triangle,

   Right angled triangle,   Isosceles triangle)

2. What is the greatest prime number between 1 and 10?

   (3,   7,   9,   2)

3. The expression obtained when x is multiplied by 5 and then added to 10 is

   (5x,   10-5x,   5x +10,   5x – 10)

4. The ratio of 9km to 12km is

   (5:4,   4:3,   3:4,   1:2)

5. The representation of data through pictures of objects.

   (Data,   Tally mark,   Bar Graph,   Pictograph)

6. Which of he following is the simplest form of $\dfrac{24}{64}$?

   $(\dfrac{3}{8}, \quad \dfrac{2}{6}, \quad \dfrac{1}{3}, \quad \dfrac{4}{7})$

7. The decimal form of $30 + 7 + \dfrac{2}{100}$ is:

   (307.2,   37.002,   37.02,   372.07)

8. Find the perimeter of a triangle with sides 3cm, 4cm, and 5cm.

   (12cm,   60cm,   16cm,   17 cm)

9. 5 (a+b) is an expression for:

         (a and b are multiplied by 5,   5 multiplied by the sum of a and b,

         Sum of a, b and 5   product of a, b and 5)

10.   88m = ---------------------------- km.

        (8.8 km, 88km, 8800 km, 0.088km)

Section – B   (2x10=20)

11. Find the ratio of :

        a)100m to 2 km

        a)30 minutes to 1.5 hours.

12. Show the lines of symmetry for

       a) Rectangle

       b) Isosceles triangle

13. a) Find the HCF of 24 and 36.

    b) Find the LCM of 5 and 12.

14. Draw a line segment $\overline{AB}$ of length 8cm and mark any point M on it. Through M, draw a perpendicular to $\overline{AB}$.

15. A rectangular box has height 'h' cm. Its length is 6 times the height and breadth is 10cm more than the length. Express the length and breadth of the box in terms of the height.

16. Hari exercised for $\frac{3}{6}$ of an hour, while Rahul exercised for $\frac{3}{4}$ of an hour. Who exercised for a longer time? By what fraction?

17. Tina bought a book for ₹ 35.65. She gave ₹ 50 to the shopkeeper. How much money did she get back from the shopkeeper?

18. Divide ₹ 100 in the ratio 2:3 between Joseph and Aswin.

19. Find the cost of fencing a square park of side 250m at the rate of ₹ 20 per metre.

20. Kiran bought 6kg 80g of apples, 3 kg 50g of grapes and 8kg 200g mangoes. Find the total weight of all the fruits he bought.

Section - C

21. Neethu had ₹ 17.45. She bought toffees for ₹ 8.30. Find the balance amount left with Neethu.   (3x10=30)

22. Take Rama's age to be 'x' years

    a) What will be her age after 5 years from now?

    b) What was her age 3 years back?

    c) Rama's Grandmother's age is 6 times her age. What is grandmother's age?

    d) Grandfather is 5 years elder than grandmother. What is Grandfather's age?

e) Rama's Mother's age is 6 years more than 2 times Rama's age. What is her Mother's age?

f) Rama's sister is 7 years younger than Rama. What is her sister's age?

23. Cost of 5kg of wheat is ₹ 30.50.

a) What will be the cost of 8kg of wheat.

b) What quantity of wheat can be purchased in ₹ 61?

24. Sweety runs around a square park of side 75m. Riya runs around a rectangular park with length 60m and breadth 45m who covers less distance and by how much?

25. Give expression in the following cases:

a) P is multiplied by 7.

b) 12 is subtracted from 2m.

c) y is multiplied by -5 and the result is added to16.

26. Determine the ratios form a proportion:

a) 2kg to 80kg and 25g to 625 g.

b) 25cm to 1m and ₹ 40 to ₹ 160

27. Study the following pictograph and answer the questions given below.

i)   Which class has the minimum number of students?

ii)   How many students are in class VI B and VI D?

iii)   Which class has the maximum number of students?

28. Represent   a) $\dfrac{3}{7}$

              b) $\dfrac{4}{5}$

           c) 1.3

    on the number lines

29. Francis takes $2\frac{1}{5}$ minutes to walk across the school ground. Joel takes $\frac{7}{4}$ minutes to do the same. Who takes less time and by what fraction?

30 A floor is 6m long ad 4m wide. A square carpet of sides 3m is laid on the floor. Find the area of the floor that is not carpeted.

<center>**Section – D**   (5x4=20)</center>

31. Pick out the solution from the values given in the bracket. Show that the other values do not satisfy the equation.

i) m + 5 = 16   (0,   5,   11)

ii) $\frac{k}{8}$ = 4   (32,   64,   12)

iii) x – 3=0   (0,   -3,   3)

iv) 5y = 20   (15,   4,   25)

32. Construct an angle of measure using ruler and compass.

a) 60^0 b) 90^0

33. Solve the following:

a) $\frac{12}{13}$ — $\frac{7}{13}$

b) $4\frac{2}{3} + 3\frac{1}{4}$

c) 20.753 — 8.40

d) 66.066 + 52.25 + 6.2

34. Out of 1800 students in a school, 750 opted Basketball, 800 opted Cricket and remaining opted Table Tennis. If a student can opt only one game, find the ratio of
a) Number of students who opted Basketball to the number of students who opted table tennis.
b) Number of students who opted cricket to the number of students who opted Basketball.
c) Number of students who opted Basketball to the total number of students.
d) Number of students who opted Cricket to the total number of students.

35. Following table gives information about the number of various books in a library. Draw a bargraph and answer the following questions:

Kinds of books	Number of books in the library
Mathematics	4000
English	3000
Short Stories	2500
Science	3500
Literature	5000

(Take 1 unit – 1000 books)   .

a) Which kind of book is in least number?

b) Find the number of Mathematics books in the library.