

GREENLAWNS SCHOOL, WORLI

Final Examination 2018

MATHEMATICS

Std: VI

Date: 16.02.18

Marks:[80]

Time: 1 ½ hrs

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Question 1

- a. Solve:  $3x - 4 = 11$  [2]
- b. Simplify:  $74.8 + 68.79 - 47.609$  [2]
- c. Let  $A = \{x/x \text{ is a letter in the word INCREASE}\}$   $B = \{x/x \text{ is a vowel of the word INCREASE}\}$  and  $C = \{x/x \text{ is a consonant of the word INCREASE}\}$
- i. Write A,B,C in the roster form
- ii. Write  $n(A)$ ,  $n(B)$ ,  $n(C)$  [3]
- d. Draw the reflection of the given figure on the grid paper attached to the question paper behind (detach the grid paper and attach it to the answer booklet) [3]

Question 2

- a. Solve:  $\left(\frac{2}{3} + \frac{9}{4}\right) \text{ of } \frac{3}{5} \div 1\frac{2}{3} \times 1\frac{1}{4} - \frac{1}{3}$  [3]
- b. The area of a rectangular field is  $3400\text{m}^2$  and its length is 68m. Find (i) its breadth, (ii) the distance covered by a man in going 5 times around the field. [3]
- c. State and draw the alphabets showing two lines of symmetry. [2]
- d. Draw a line segment  $AB = 8\text{cm}$  and draw a perpendicular bisector. [2]

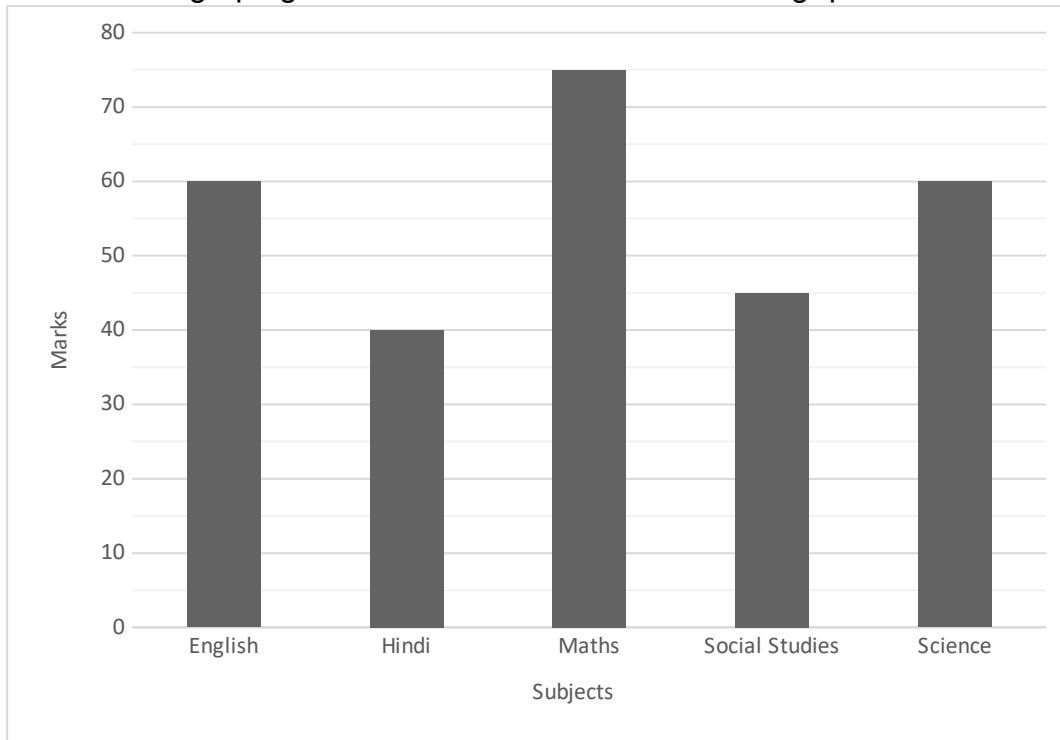
Question 3

- a. Find the mean and mode of 7,14,5,13,10,7,8,8 [2]
- b. Construct angle  $ABC = 60^\circ$  and bisect it using compass and ruler. [2]
- c. Represent A, the set of all multiples of 12 below 100 by Roster method and set builder method. [2]
- d. There are 180 members of a committee. In a meeting  $\frac{3}{5}$  of them were present. How many members were absent? [2]
- e. Find the volume of a cube, one face of which has total surface area of  $96\text{cm}^2$ . [2]

Question 4

- a. If one brick measures 25cm in length, 12cm in width and 8cm in height, how many such bricks will be needed to build a wall 3m long, 1.6m tall and 25cm thick? [2]
- b. A man is 24 years older than his son. After 2 years, the man's age will be three times of that of his son. Find their present age. [3]
- c. Solve:  $\frac{1.3 \times 2.4}{0.39} + \frac{0.8 \times 9 \times 1.5}{0.108}$  [3]

d. Observe the graph given below and answer the following questions: [2]



- (i) What information does the bar graph give?
- (ii) In which subject is the student very good
- (iii) In which subject is he poor?
- (iv) What are the average of his marks?

Question 5

- a. Find the lateral surface area of a cuboid 15cm long, 12cm wide and 9cm high. [2]
- b. The table below gives the number of cars produced by Maruti Suzuki in last 5 years. Represent the data by a pictograph. [2]

Year	2006	2007	2008	2009
No. of cars	60	75	90	105

- c. Identify the following sets into: finite, infinite, null, singleton (write only answers) [3]
  - I A={First prime minister of India}
  - II B={Prime number having 5 as a factor}
  - III C={x/x is an odd prime number}
  - IV D={Positive integer less than 0}
  - V E={Polygons with five sides}
  - VI F={2,4,6,8....72}

- d. Subhash completed  $\frac{2}{5}$  of his maths homework on one day and  $\frac{1}{3}$  of it the next day. If the number of problems not done are 8 then, how many problems did he have for homework? [3]

Question 6

- a. The area of a parallelogram is  $24\text{cm}^2$ . Find the perpendicular height between the two sides of length 4cm. [2]
- b. Using a compass and a ruler, draw a perpendicular XO on the line AB from a point X outside line AB. [2]
- c. Solve:  $\frac{6(x-5)}{3} + \frac{(5x+3)}{4} = 1$  [3]
- d. Solve:  $0.92x8 + 0.08x8$  [1]
- e. Solve:  $\left(\frac{16}{7} \times \frac{3}{4}\right) + \frac{3}{2} \times \frac{4}{5}$  [2]

Question 7

- a. Solve:  $1\frac{2}{5} \div 2\frac{1}{2}$  of  $\frac{2}{7}$  [2]
- b. State the number of axes of symmetry for the following [2]
- Isosceles triangle
  - Rhombus
  - Kite
  - Circle
- c. Using the compass and the ruler, construct angle ABC  $90^\circ$  and bisect it. [3]
- d. The following table shows the daily sale of electric fans in a shop for 6 days of a week. Represent the data using a bar graph. [3]

Day	Mon	Tues	Wed	Thurs	Fri	Sat
Sale	200	250	300	160	400	120

Question 8

- a. Solve:  $0.6038 + 138.3008 - 38.8 - 100$  [2]
- b. Time taken (in minutes) by 7 participants to complete a cycling race is 24,22,28,30,26,32,34. Find the range, mean and median of the given data. [3]
- c. When 9 is added to twice a number, the result is 3 more than thrice the number. Find the number. [3]
- d. Find the area of the triangle whose base is 4cm and height is 3cm. [2]

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Name: \_\_\_\_\_ STD: \_\_\_\_\_ Roll No. \_\_\_\_\_

Question 1: Attach this sheet to the answer booklet

