

# CBSE Sample Paper Class 6 Maths SA2 Set 5

Time : 3 hours

Maximum Marks : 90

## General Instructions:

- 1) All questions are compulsory.
- 2) Section A carries 6 marks, one mark for each part.
- 3) Section B carries 10 marks, one mark for each part.
- 4) Section C carries 12 marks, two marks for each question.
- 5) Section D carries 32 marks, four marks for each question.
- 6) Section E carries 30 marks, five marks for each question.

### SECTION A

Q.1 Choose the correct option for the following:

- i) A square pyramid has \_\_\_\_ edges
  - a) 12
  - b) 6
  - c) 8
  - d) 10
- ii) The English alphabet 'D' has \_\_\_\_ lines of symmetry.
  - a) 2
  - b) 1
  - c) 0
  - b) None of these
- iii) The ratio of 81 : 108 is same as
  - a) 4:3
  - b) 9:14
  - c) 12:5
  - d) 3:4
- iv) Arranging data in the form of a table is called
  - a) bar graph
  - b) Pictograph
  - c) array
  - d) tabulation
- v) An engineer who wants to build a boundary wall of his house will need to find the
  - a) area
  - b) perimeter
  - c) raw data
  - d) value of  $\pi$  .
- vi) The expression  $2x + 5y$  is a \_\_\_\_
  - a) Monomial
  - b) Binomial
  - c) Constant term
  - d) Quadrinomial

### SECTION B

Q.2 Fill in the blanks:

- a) The coefficient of  $x$  in  $-2xy^2$  is \_\_\_\_\_
- b) The ratio of 36min to 1 hr is \_\_\_\_\_
- c) Write the equation for :- the sum of a number and 7 is 15 \_\_\_\_\_
- d) The circumference of a circle of diameter 7cm is \_\_\_\_\_
- e) The perimeter of a square of side 25cm is \_\_\_\_\_
- f) Data obtained in original form is called \_\_\_\_\_

- g) The number of times a particular observation occurs is called \_\_\_\_\_
- h) Which direction will you face if you start from North and turn  $\frac{3}{4}$  of a revolution \_\_\_\_\_
- i) Half a revolution = \_\_\_\_\_°
- j) A rhombus has \_\_\_\_\_ line(s) of symmetry

### SECTION C

- Q.3 Draw a square pyramid. How many faces does it have?
- Q.4 Draw a parallelogram and mark its diagonals
- Q.5 Find the area of a rectangle with  $l = 16\text{m}$ ,  $b = 14\text{m}$
- Q.6 In a class of 45 students, there are 21 girls. Find the ratio of number of boys to total number of students
- Q.7 Write any two alphabets with two lines of symmetry. Also show the line of symmetry
- Q.8 Solve using trial and error: -  
 $x + 8 = 12$

### SECTION D

- Q.9 Esha collected the data for shoe size of 20 students in her class. Arrange this in the form of a frequency table using tally marks.  
 5, 4, 7, 5, 6, 5, 5, 6, 5, 4, 5, 6, 7, 8, 7, 4, 8, 7, 4, 6
- Q.10 Draw a line segment  $AB=5\text{cm}$ . Construct its perpendicular bisector using a pair of compasses.
- Q.11 Find the cost of fencing a square park of sides 150m at the rate of ₹35 per metre.
- Q.12 Construct an angle of  $90^\circ$ , bisect it to obtain an angle of  $45^\circ$ . (using compass)
- Q.13 Divide 50 pens in the ratio 4:5
- Q.14 Subtract  $3x^4 + 5x^3 - 9x^2 + 7x - 2$  from  $2x^4 - 5x^3 + 2x^2 - 6x - 8$
- Q.15 Determine whether the given numbers are in proportion: 32,48,80,150
- Q.16 For  $x=2$ ,  $y=3$  find the value of  $5x + 7y$

### SECTION E

- Q.17 Simplify  $x^4 - 6x^3 + 7x^2 - 5x + 1 - 3x^4 + 5x^3 - 9x^2 + 7x - 8$
- Q.18 The mode of transport used by different students of a school is as given below:-

Mode	Car	Bus	Two wheeler	Auto Rickshaw
No of Students	300	900	650	250

Draw a bar graph for the above data.

- Q.19 Bobby wants to cover the floor of a room 250cm long and 125 cm wide using square tiles of side 25cm. Find the number of tiles required.
- Q.20 Find the distance covered by the wheel of a car in 350 revolutions, if the diameter of the car's wheel is 35cm
- Q.21 Cost of 75 cards is ₹525. Find (a) how many cards can you buy for ₹770? (b) how much money do you need to pay for 10 cards?
- Q.22 Draw a square each of whose side is 4 cm. Use a pair of compasses and ruler for the construction.