

SUBJECT : MATHEMATICS

MAX. MARKS : 60

CLASS: VI

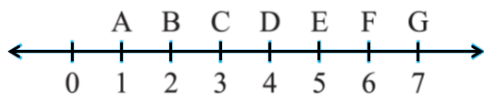
TIME: 2 Hr.30 Min

GENERAL INSTRUCTIONS:

1. All questions are compulsory.
2. The question paper consists of 30 questions divided into 4 sections A, B, C, D.
3. Section A comprises of 15 questions of 1 mark each. Section B comprises of 5 questions of 2 marks each. Section C comprises of 5 questions of 3 marks each. Section D comprises of 5 questions of 4 marks each.
4. Internal choices are provided in 2 questions of section B, 2 questions of section C and 2 questions of section D.
5. Calculators are not permitted.

SECTION- A

1. Using the digits 2,0,8,7 without repetition the greatest number obtained is _____.
(a) 7802 (b) 8072 (c) 8720 (d) 8207
2. Which of the following statements is wrong?
(a) The successor of a two digit number is always a two digit number.
(b) The predecessor of a two digit number can be one digit number.
(c) Zero is smallest whole number.
(d) 1 is a natural number and a whole number as well.
3. The number **five lakh forty one** written in figures
(a) 541 (b) 5,00,41 (c) 5041 (d) 5,00,041
4. Kritika listed all the factors of her age and her brother listed all the factors of his age. They found that the numbers 1, 2 and 3 were there in both the list. What could be their ages (in years)?
(a) 9 and 10 (b) 10 and 12 (c) 12 and 18 (d) 16 and 18
5. How many diagonals a pentagon has?
(a) 10 (b) 5 (c) 4 (d) 8
6. Which is the only even prime number?
(a) 2 (b) 3 (c) 4 (d) 5
7. What is the midpoint of line segment BF?



- (a) D (b) E (c) C (d) B
8. Ritu bought 1 meter long ribbon. She took $\frac{3}{4}$ of it and gave the remaining to her sister Anita. How much ribbon Anita got?
(a) 75 cm (b) 15 cm (c) 25 cm (d) 100 cm
9. What is the sum of prime numbers between 8 and 16?
(a) 58 (b) 43 (c) 33 (d) 24
10. Which one of the following integers lie in between integers -3 and -5?
(a) -6 (b) -2 (c) 0 (d) -4
11. What angle does the hour hand moves when it turns from 1 to 5?
(a) 120° (b) 60° (c) 100° (d) 90°
12. $(-32) + (-12)$ _____ (-40)
(a) < (b) > (c) = (d) None of these
13. Which of the following is not a correct representation of fraction $\frac{1}{2}$?



a



b



c



d

(a) a

(b) b

(c) c

(d) d

14. Which of the following can be the sides of a scalene triangle?

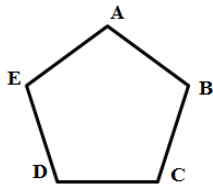
(a) 3cm, 3cm, 3cm

(b) 3cm, 4cm, 3cm

(c) 3cm, 4cm, 5cm

(d) 3cm, 5cm, 5cm

15. Which of the following is not a side of the following polygon?



(a) AB

(b) EB

(c) CD

(d) DE

Section –B

16. Show $\frac{3}{5}$, $\frac{6}{5}$ on number line.

OR

Arrange the following fractions in ascending order.

$$\frac{7}{15}, \frac{2}{15}, \frac{2}{3}$$

17. In a housing complex, there are two types of buildings ‘Type A’ and ‘Type B’. There are 15 ‘Type A’ buildings and 22 ‘Type B’ buildings. Each of the ‘Type A’ building has 10 floors with 4 apartments on each floor. Each of the ‘Type B’ building has 15 floors with two apartments on each floor.

(i) How many apartments are there in a ‘Type A’ building?

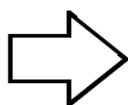
(ii) How many apartments are there in all?



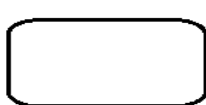
18. A teacher was teaching basic geometrical concepts to the students. She gave some figures to students and asked few questions from it.



a



b



c



d

(i) Which of the above figures have no corners?

(ii) How many line segments are there in ‘figure a’?

19. Consider the letters of the English alphabets given below.

A E U O L P I T K H

Which alphabets have a pair of perpendicular lines?

OR

Ramu starts from point A. He moves 5 km in north direction to the point B. Then he turns right and goes 3 km to point C. Again he takes right turn and goes 5 km to point D. Once more takes right turn and goes 3km.

(i) In which direction he is moving now?

(ii) What is his distance from starting point now?

20. Find the common factors of 32, 24.

Section – C

21. A machine on an average, manufactures 2,825 ice-creams a day. How many ice-creams did it produce in the month of February 2020?
22. Manju and Arif are playing a game in which Manju thinks of a number from the grid shown below and gives the clues. Arif has to find the number using clues that are given.

(i) It is a multiple of 3. It is even. It is in the third row.

What is Manju's number?

(ii) This number is factor of all the numbers in the grid..

(iii) LCM of numbers in the first row is _____.

Row 1	1	2	3	4	5
Row 2	6	7	8	9	10
⋮					
⋮	11	12	13	14	15
	16	17	18	19	20
	21	22	23	24	25

23. Draw an acute angle, an obtuse angle and a right angle.

Also write their measurements.

24. Mother made a 'Gud Patti' (a sweet made of jaggery and peanuts) in a round shape. She divided it into 8 parts. Seema ate two parts from it.

Mother ate two parts and Meena ate remaining piece.

(i) What fraction mother did mother eat?

(ii) What fraction mother and Seema together ate?

(iii) By what fraction the share of Meena was larger than Seema?

OR

Tina and Aryan visited a zoo on Sunday. The guide told them that there are total 500 animals. $\frac{1}{10}$ of them are lions, $\frac{1}{20}$ are monkeys, $\frac{2}{5}$ are birds, $\frac{3}{10}$ are elephants, $\frac{1}{20}$ are bears and rest are tigers. After knowing this their parents asked some questions to them.

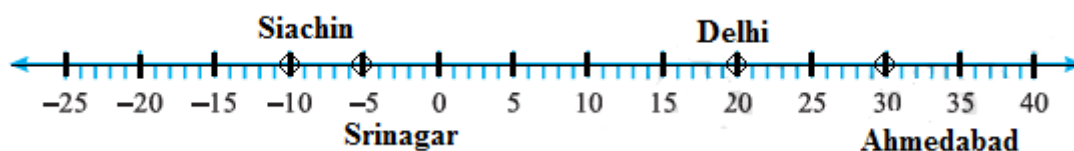


(i) How many lions are there in the zoo?

(ii) Find the fraction of tigers in the zoo.

(iii) What is the difference between the number of elephants and monkeys?

25. One day Manoj was watching weather news. He represented the temperatures of various cities on number line. Looking the number line answer the following questions.



(i) Which place has temperature 5°C below 0°C ?

(ii) Which is the coolest place?

(iii) What is the difference between temperatures of Delhi and Srinagar?

OR

Solve

(i) $(-312) + (-12) - (-254)$

(ii) $-25 - 54 + 70$

(iii) $-23 + 0 - (-23)$

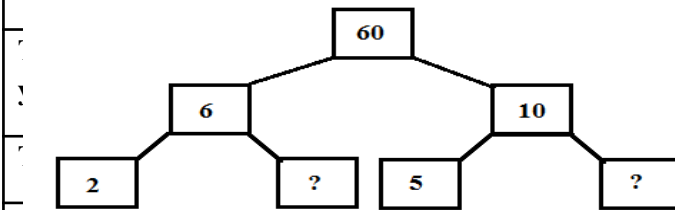
Section D

26. Raman is a shopkeeper. He sells general items like daily use items, fruits, stationary etc.

The rate list of items is	
Things	Price (in Rs)
Apples	40 per kg
Oranges	30 per kg
Combs	3 per one
Tooth brushes	10 per one
Pencils	1 per one

27. (i)

- (i) Find the amount he got for each item.
(2+1+1)
(ii) Find the total amount of money Raman got by selling apples and oranges.
(iii) Find the total sale during last year.
Find the HCF of 18, 54 and 81 using prime factorisation.
(ii) Complete the factor tree.



Apples	245 / kg
Oranges	3004 kg
Combs	22760 combs
Tooth Brushes	25367
Pencils	38530 pencils

OR

Using divisibility rules check the divisibility of number 2854558 by 11.

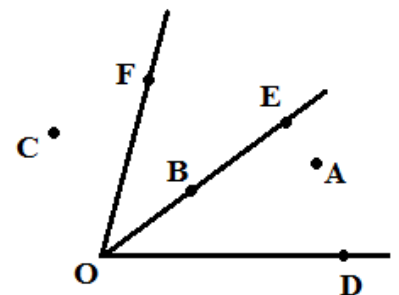
What is the smallest 3 digit number which is exactly divisible by 6, 12?

there are 7 places labelled as A, B, C, D, E, F and O. Radhika these places in the map of and draws them on her notebook as given in the

28. In a city notices the city

figure.

- (i) Which point lies on the line segment OE?
(ii) What point is vertex of the $\angle FOD$?
(iii) Which two angles of the following are same?
 $\angle EOD$, $\angle FOD$, $\angle COD$, $\angle DOB$
(iv) Which three points lie in the interior of $\angle FOD$?



29. Find the following results using number line

- (i) $4+5$
(ii) 4×2

OR

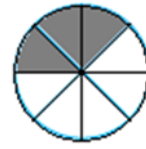
Fill in the blanks

- (i) _____ is the smallest natural number.
(ii) _____ is the successor of 78455.
(iii) _____ is the only whole number that has no predecessor.
(iv) _____ is the only whole number that is not natural number.

30. Answer the following Q. by given figure.

(i) Write two equivalent fractions of $\frac{2}{3}$.

(ii) What fraction does the following figure represent?



(iii) Write $\frac{16}{72}$ in simplest form.

(iv) Write $\frac{17}{4}$ in mixed fraction.