SAMPLE QUESTION PAPER : CLASS –VI

SUBJECT : MATHEMATICS

MAX.MARKS – 80 **TIME -3HOURS**

General Instructions:

- **This question paper comprises of 38 questions .All questions are compulsory.**
- **It consists of five sections – A, B, C, D and E.**
- **Section-A consists of Multiple Choice Questions from Q.1 to Q.20. Each question carries 1 mark .**
- **Section-B consists of very short answer type questions from Q.21 to Q.25. Each question carries 2 marks .**
- **Section-C consists of Short answer type Questions from Q.26 to Q.31. Each question carries 3 marks .**
- **Section-D consists of Long answer type Questions from Q.32 to Q.35. Each question carries 5 marks .**
- **Section-E consists of Case Based Study type Questions from Q.36 to Q.38. Each question carries 4 marks with sub marking (1+1+2).**

Section – A (20 MCQ's carrying 1 mark each)

Choose the correct option for the following questions:

1. Find the next number in the pattern- 2, 6, 12, 20, 30, ____
(a) 36 (b) 40 (c) 42 (d) 44

2. A straight angle contains _____ right angles.
(a) 3 (b) 2 (c) 4 (d) 1

3.The number sequence 1, 3, 6, 10, 15, 21, 28, …….is the sequence of
(a) even number (b)odd number (c)cubes (d)triangular number

4. _____ are the counts of the occurrences of values, measures or observations.
(a)data (b)frequencies (c)bar graphs (d)pictographs

5.The sequence 1,8,27,64,125,…..represents_____.
(a)multiples of 3 (b)multiples of 2 (c)squares (d)cubes

6.Which angle measure among the following does not represent an acute angle?
(a)87^0 (b)45^0 (c)96^0 (d)54^0

7. Identify the sequence 1, 7, 19 , 37……
(a) hexagonal numbers (b)odd numbers (c) multiples of 7 (d) cubes

8.Tally Marks for 9 is
(a)𝍸𝍸 (b)𝍸 𝍸 I (c) 𝍸 IIII (d)𝍸

9. The supercell in the given table is

38	45	84	96	25

(a)38 (b)45 (c)96 (d)84

10.Which of the following is Kaprekar Constant?
(a)6714 (b)6174 (c)7146 (d)6417

11.Two rays OP and OM form an angle POM, having a common starting point "O" called_____.
(a)vertex (b)vertices (c)intersection (d)none of the above

12.What is the sum of first 6 odd numbers?

(a)38 **(b)45** **(c)36** **(d)81**

13.Two lines that meet at right angles are called _____lines?
(a)perpendicular **(b)parallel** **(c)curved** **(d)similar**

14.The smallest number whose digit sum is 12 is_____
(a)66 **(b)48** **(c)39** **(d)52**

15.What is the Digit sum of 526?
(a)18 **(b)13** **(c)16** **(d)31**

16.Which of the following is correct?
(a)any two prime numbers are coprimes. **(b)coprimes are prime numbers.**
(c)3 is the smallest prime number. **(d)75 is divisible by 21.**

17.Which one of the following is a composite number?
(a)37 **(b)57** **(c)67** **(d)47**

18.Pairs of prime numbers having a difference of 2 are called_____.
(a)Twin Primes **(b)Coprimes** **(c)sub primes** **(d)composite numbers**

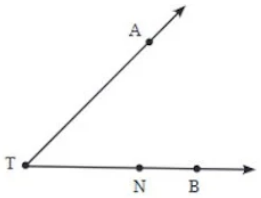
Assertion(A) and Reasoning(R) questions:
(a) Both A and R, are true and R is the correct explanation of A
(b) Both A and R, are true but R is not the correct explanation of A
(c) A is true but R is false
(d) A is false but R is true

19. Assertion (A): Pictographs help us understand data at a glance.
Reason (R): In a pictograph, one symbol always represents exactly one object.

20. Assertion (A): The number 1 is considered a prime number.
Reason (R): A prime number must have exactly two distinct factors.

SECTION – B (5 questions carrying 2 marks each)

21. What sequence do we get when we start adding up odd numbers?
22. Name the rays shown in Fig. 2.5. Is T the starting point of each of these rays?



23. There is only one supercell in this grid. If you exchange two digits of one of the numbers, there will be 4 supercells. Find out which digits to swap.

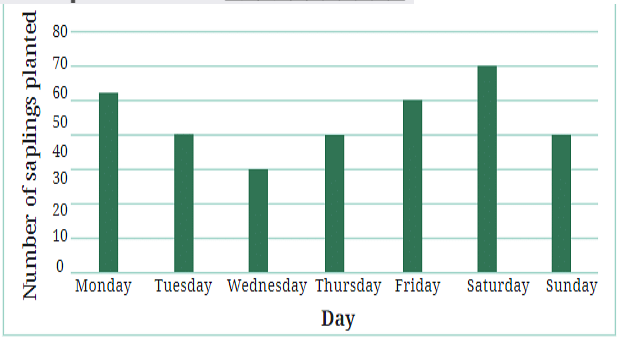
16,200	39,344	29,765
23,609	62,871	45,306
19,381	50,319	38,408

(or)
Write one 5-digit number and two 3-digit numbers such that their sum is 18,670.

24. Find the Multiples of 15 between 1 to 90?

25. Students and teachers of a primary school decided to plant tree saplings in the school campus and in the surrounding village during the first week of July. Find

(a) The total number of saplings planted on Wednesday and Thursday .
(b) The greatest number of saplings were planted on _____, and the least number of saplings were planted on _____.



(OR)

Following table shows the shoe sizes of students of Class 6. Answer the questions given below the table:

4	5	3	4	3	4	5	5	4
5	5	4	5	6	4	3	5	6
4	6	4	5	7	5	6	4	5

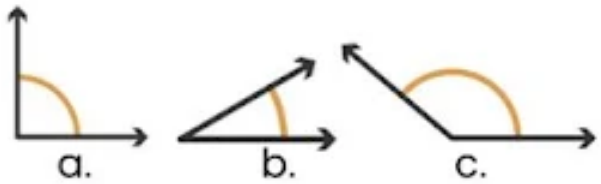
(a) Which is the most common shoe size?
(b) How many students have shoe size 5?

SECTION C (6 questions carrying 3 marks each)

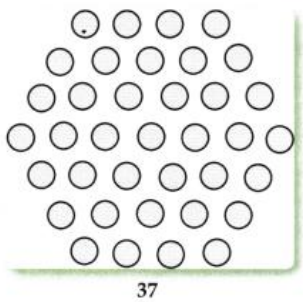
26. What is the sum of the smallest and largest 5-digit palindrome? What is their difference?
27. Draw the following angles using a protractor: (a) 45^0 (b) 110^0

(or)

Measure and name the type of angles given below:



28. Identify the shape representing a shape sequence. Name the sequence and draw 3rd number of the sequence.



29. Find the sequence of complete graphs by counting the number of lines in each shape. Which number sequence does the complete graphs represent?

(or)

Represent pictorially 15 as a triangular number and 25 as a square number.

30. Avani saw the following trees on her way to home while returning from her school.Using the following table, answer the questions given below:

Tree	No. of Trees
Peepal	12
Neem	10
Teek	5
Mango	11
Apple	15
Banana	2

(i) What was the total number of trees Avani saw as listed above?
(ii) Which trees count was even in number?

31. (a) Find the common factors of : 20 and 28

(b) Find a perfect number between 1 to 10.

SECTION – D (4 questions carrying 5 marks each)

32. Find the smallest number that is a multiple of all the numbers from 1 to 10 except for 7. Also find what will be the smallest number which will be the multiple of all the numbers between 1 to 10.

(or)

(a) Find seven consecutive composite numbers between 1 and 100.
(b) Find the prime factorisations of the following numbers: 64, 105, 320.Which one of them has 3 different prime factors?

33.

Draw a rough figure and write labels appropriately to illustrate each of the following:

a. $\overleftrightarrow{OP}$ and $\overleftrightarrow{OQ}$ meet at O.
b. $\overrightarrow{XY}$ and $\overleftrightarrow{PQ}$ intersect at point M.
c. Line *l* contains points E and F but not point D.
d. Point P lies on AB.

34. Find the following:
a. Write 2 numbers whose digits add up to 14.
b. What is the smallest number whose digit sum is 14?
c. What is the largest 5-digit number whose digit sum is 14?
d. Among counting numbers, how many numbers have 2 digits?
e. Smallest 3 digit number which is a palindrome is____.

35.Following table shows the number of kites sold by Maganlal. Draw a pictograph for the same using scale

Shopkeeper	Number of Kites sold
Chaman	250
Rani	300
Rukhsana	100
Jasmeet	450
Jetha Lal	250
Poonam Ben	700

I symbol =50 kites. Also answer the following

(a) Who purchased the maximum number of kites?
(b) Who purchased more kites, Jasmeet or Chaman?

(or)

(i) Draw a Bar graph to represent the following data:

				
Mites	Caterpillars	Beetles	Butterflies	Grasshoppers
6	10	5	3	2

(ii)Prepare a frequency distribution table for the given data:

bike	car	bike	bus
bike	auto	bicycle	bullock cart
car	scooter	car	auto
car	auto	bike	scooter
bicycle	scooter	bicycle	scooter
auto	auto	bike	bicycle
bicycle	scooter	bus	scooter
scooter	bicycle	bike	bullock cart

SECTION - E
(CASE BASED STUDY QUESTIONS, 3 questions carrying 4 marks each)

36. Ankita manages a book stall at a fair. She recorded the genres of books sold on Monday and presented the data in the following table.

Genre	Number of Books Sold
Fiction	10
Non-Fiction	15
Mystery	12
Science	8
History	5

Based on the above table answer the following
(i). What is the total number of books sold on Monday? (1)
(ii) Which genre of books sold the least on Monday? (1)
(iii) The price of one fiction book is ₹150. How much money did Ankita earn by selling all fiction books on Monday? (2)

(or)

If the Price of a non fiction book is ₹120, How much money did Ankita earn by selling them on Monday?

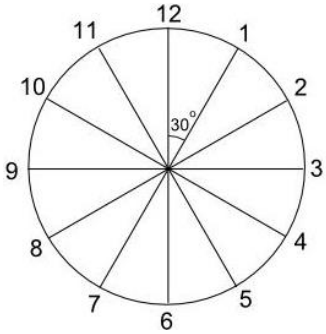
37. A florist had 200 Daisies, 180 tulips and 320 orchids with him. He was asked to make garlands of flowers with only daisies or only tulips or only orchids each containing some number of flowers.

(i) Find the Prime factorization of 180. (1)
(ii)The LCM of two Coprime numbers is_____. (1)
(iii) What will be the largest number of flowers he can join together without leaving a single type of Flower? (2)

(or)

Find the prime factorization of 320.

38. Radha was teaching her son Manu about Lines and Angles. She gave him the examples of various angles formed in daily life. Manu gave her an example of angles formed by hands of a clock and asked her to explain about how to measure the angles in a clock . Radha drew this picture to explain Manu about it.



(i) What will be the measure of angle between the hands of the clock at 3 a.m? (1)
(ii) What will be the measure of angle between the Hands at 5 o'clock? (1)
(iii) What will be the measure of angle formed at 6 o'clock? Also name the type of angle formed. (2)

(or)

What will be the angle formed between the hands of the clock at 12:25 p.m?

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