

**Directorate of Education, GNCT of Delhi**  
**Mid-term Practice Paper (Session: 2025-26)**  
**Class – VI**  
**Subject – Mathematics**

**Duration:  $2\frac{1}{2}$  hours**

**Max. Marks: 60**

General Instructions:

1. This question paper has 16 questions divided into 5 Sections A, B, C, D and E.
2. Section A has 1 question having 12 sub-parts. Each sub-part is of 1 mark.
3. Section B has 6 questions carrying 02 marks each.
4. Section C has 3 questions carrying 03 marks each.
5. Section D has 3 questions carrying 05 marks each.
6. Section E has 3 case based questions (04 marks each) with sub- parts of the values of 1, 1 and 2 marks.
7. All questions are compulsory. However, an internal choice in 2 questions of 5 marks, 1 question of 3 marks and 1 question of 2 marks has been provided. An internal choice has been provided in the 2 marks questions of Section E .
8. Draw neat figures wherever required.
9. Use of calculator is not permitted.

**Please write down the serial number of question before attempting it.**

**SECTION A**

*This section has only one question having 12 (i – xii) sub-parts. Each sub-part is of 1 mark.*

1. Select the most appropriate answer from the given options for each sub-part:

(i) The largest number formed by the digits 3,0,5 and 8 is:

- (a) 8305                      (b) 8503                      (c) 8530                      (d) 8350

(ii) In the following data, the appropriate tally mark for the frequency of 5 is :

2, 3, 1, 5, 1, 3, 6, 4, 5, 5  
6, 6, 2, 3, 2, 4, 4, 5, 6, 5  
5, 2, 1, 1, 1, 3, 4, 5, 2, 6

- (a) ~~||||~~ ||                      (b) |||||                      (c) ~~||||~~ |                      (d) |||||

(iii) The sum of smallest and largest 3-digit number is:

- (a) 1100                      (b) 1099                      (c) 1999                      (d) 1109

(iv) Out of the following, Virahanka number sequence is :

- (a) 1,2,3,5,8..... (b) 1,2,3,4..... (c) 1,,3,5,7..... (d) 1,2,4,8.....

(v) Which of the following represents a line segment?

- (a)  $\overrightarrow{DE}$  (b) PQ (c)  $\overline{AB}$  (d)  $\overleftrightarrow{XY}$

(vi) The next number in the sequence 100, 90, 80, 70.... is:

- (a) 60 (b) 50 (c) 75 (d) 80

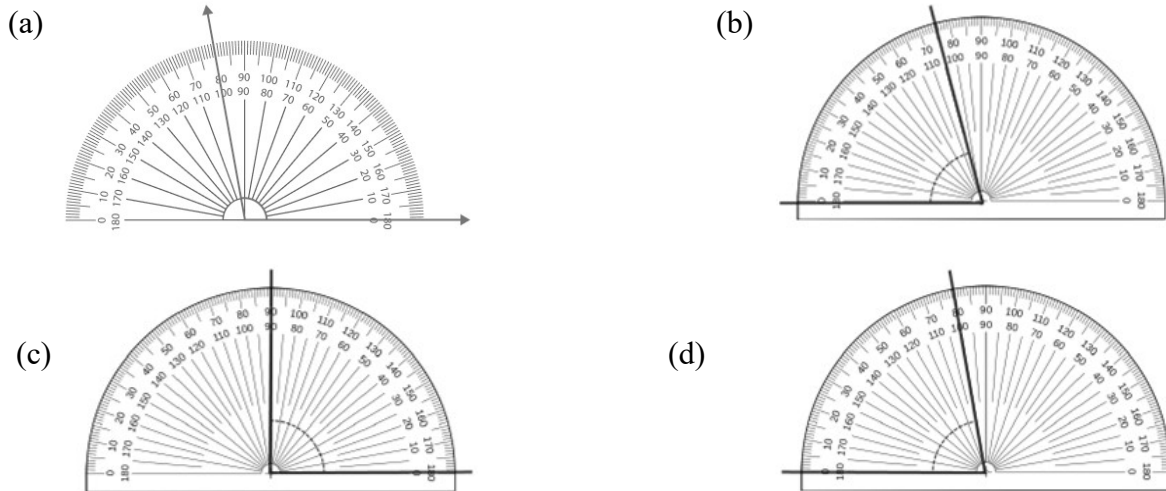
(vii) The palindromic out of the following is:

- (a) 19/12/1912 (b) 71317 (c) 15:15 (d) 20/02/2020

(viii) The twin prime of 13 is:

- (a) 17 (b) 3 (c) 11 (d) 23

(ix) An angle measuring  $100^\circ$  is shown by:



(x) Which of the following numbers can be shown as a square?

- (a) 2 (b) 3 (c) 4 (d) 6

(xi) A ray has:

- (a) has one end-point (b) goes endlessly in both directions  
(c) has one source-point (d) has a definite length

(xii) In Collatz conjecture, the rule for odd numbers is :

- (a) multiply it by 3 and add 1 (b) double the number  
(c) half the number (d) multiply it by 2 and add 1

## SECTION B

*This section has six short answer type questions. Each question is of 2 marks.*

2. Fill the digits 50, 300, 120, 1500 in the following:

$$(\quad \times \quad) - \quad + \quad = 4800$$

3. Draw an angle of  $40^\circ$  using a protractor.
4. Write two common multiples of 16 and 20.
5. The following table shows the number of biscuits in different packets ( 🍪 = 5 biscuits) :

Packet A	🍪 🍪 🍪 🍪 🍪
Packet B	🍪 🍪
Packet C	🍪 🍪 🍪 🍪 🍪 🍪 🍪
Packet D	🍪 🍪 🍪
Packet E	🍪 🍪 🍪 🍪 🍪

Answer the following questions based on this table:

- a) How many biscuits are in packet E?
  - b) Which packet has more number of biscuits and how many?
6. At what time during the day, the hands of the clock make:
    - (a) a straight angle
    - (b) a right angle
  7. Express number 21 in the form of a triangle.  
OR  
Draw complete graph K4.

### SECTION C

*This section has three short answer type questions. Each question is of 3 marks.*

8. Write first 6 odd numbers and then add them. What kind of number do you get?
9. Draw a line and line segment. Write any two differences between them.
10. Chandan gave party to his friends on his birthday . The following table shows the colour of the dresses worn by children in the party:

Colour of the dress	Blue	Black	Green	White	Yellow	Pink
Number of children	8	4	3	2	5	6

Represent the information using pictograph.

OR

Represent the above given information using bar graph.

### SECTION D

*This section has three long answer type questions. Each question is of 5 marks.*

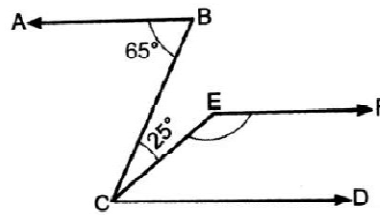
11. Justify Kaprekar constant for the number 2025.

OR

Find the sum and difference of greatest and largest 5-digit palindromic number. Is the number obtained palindromic in both cases?

12. From the given figure, name the following:

- (a) an angle measuring  $25^\circ$
- (b) a line segment
- (c) an obtuse angle
- (d) any two rays
- (e) any four points



13. Check if 132 and 84 are co-prime by doing prime factorisation.

OR

Write prime factorisation of 1050, 625 and 100.

## SECTION E

*This section has three case based questions. Each question is of 4 marks.*

14. The children of a family have their birthdays as follows:

Prashant : 27/04/2015

Yamini : 16/05/2020

Vineet: 31/10/2011

Mridula : 10/02/2014

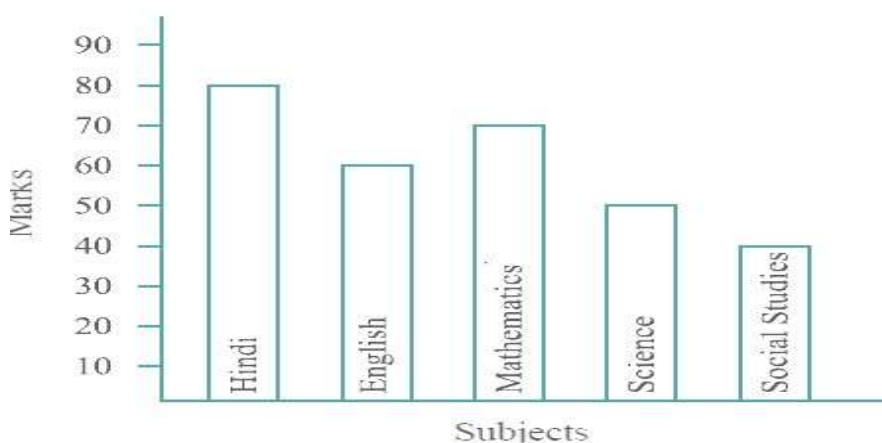
Based on the above information, answer the following questions:

- (i) Whose birth-date is a multiple of 3? 1
- (ii) Whose birth-date is a prime number? 1
- (iii) Using divisibility rules, find if Mridula's birth-date and birth-month are factors of her birth-year? 2

OR

Whose birth-year is divided by birth-months of all of them?

15. The following bar-graph shows the marks obtained out of 100 marks by Pooja in her class examination:



Based on the above information, answer the following questions:

- (i) How many marks did Pooja score in Science? 1
- (ii) In which subject/s, she scored more marks than Mathematics 1
- (iii) Find the total marks obtained by Pooja in English and Social Studies. 2

OR

How many more marks did she score in Hindi than Mathematics?

16. Madhav, Sunil and Suman are playing a game. They each has a card having some numbers written on it. All of them have to find supercells in their respective card. The cards are shown below:

1588	4368	2703	6547	376
1660	9701	3786	5502	8062
1012	968	714	3654	4079

Madhav's card

1225	2356	9060	4732	549
471	2853	7820	479	8290
7009	9542	656	3021	4958

Sunil's card

4032	8076	3123	9001	653
5672	456	4035	3064	6908
3097	6541	7120	6981	3782

Suman's card

Based on the above information, answer the following questions:

- |   |   |
|---|---|
| (i) Which number/numbers of first row of Madhav's card are supercell?       | 1 |
| (ii) Whose card has only one super cell in second row?                      | 1 |
| (iii) Arrange the numbers of supercells of Sunil's card in ascending order. | 2 |

OR

Find the difference of the supercells having largest and smallest numbers in Suman's card.