

Half Yearly Examination 2019-20

Class-VI

Sub: Maths.

Time: 2.30 hrs.

M.M: 80

General Instruction :

1. This question paper is divided into four sections : A,B,C and D.
2. All questions are compulsory.
3. Question number 1 to 6 are one mark questions.
4. Question number 7 to 12 are two mark questions.
5. Question number 13 to 22 are three mark questions.
6. Question number 23 to 30 are four mark questions.
7. No external choice is given, however internal choice are given in some questions.

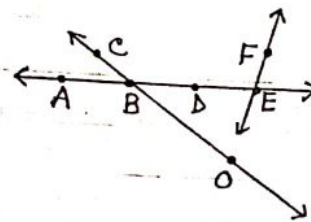
Section : A

- Q.1. The greatest of the numbers 1000, 10000, 10, 1000000 is :  
(a) 1000000                      (b) 10000                      (c) 1000                      (d) 10
- Q.2. The successor of 99 is :  
(a) 99                      (b) 100                      (c) 98                      (d) none of these
- Q.3. Which of the following number is not a factor of 24?  
(a) 2                      (b) 3                      (c) 4                      (d) 5
- Q.4. How many points are enough to fix a line?  
(a) 1                      (b) 2                      (c) 3                      (d) 4
- Q.5. The angle measure for one complete revolution is :  
(a)  $180^\circ$                       (b)  $360^\circ$                       (c)  $90^\circ$                       (d) none of these
- Q.6. An integer between  $-3$  and  $-1$  is :  
(a)  $-3$                       (b)  $-1$                       (c)  $-2$                       (d) 0

Section : B

- Q.7. Place commas correctly and write the numeral :  
Seventy three lakh seventy five thousand three hundred seven.
- Q.8. Write the next two natural numbers after 10999.

- Q.9. Use the given figure to name :  
(a) line containing point e.  
(b) two pairs of intersecting lines.



Q.10. Verify, whether D is mid point of AG

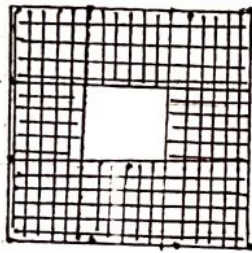


Q.11. Write opposite of the following :

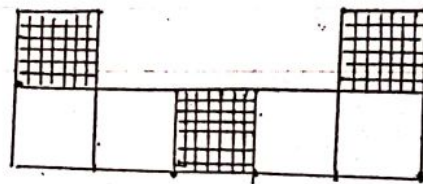
- (a) Increase in weight
- (b) Loss of Rs. 700.

Q.12. Write the fraction representing the shaded portion :

(a)



(b)



**Section : C**

Q.13. Fatima book store sold books worth Rs. 2,85,891 in the first week of June and book worth Rs. 4,00,768 in the second week of the month. How much was the sale for the two weeks together? In which week was the sale greater and by how much?

Q.14. Find the value of :  $81265 \times 169 - 81265 \times 69$

Q.15. Using divisibility tests, determine 10824 is divisible by 11.

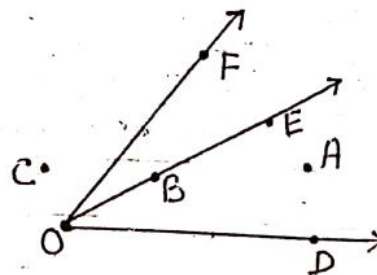
OR

Using divisibility test, determine 1258 is divisible by 6.

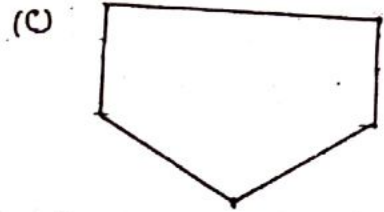
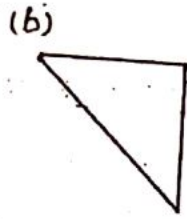
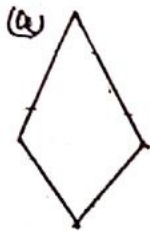
Q.16. Write the common factors of 20 and 28.

Q.17. In the given diagram, name the point(s)

- (a) In the interior of  $\angle DOC$
- (b) In the exterior of  $\angle EOF$
- (c) On  $\angle EOF$



Q.18. Name each polygon :



Q.19. Find the solution of the following addition using a number line :

(a)  $(-2) + 6$     (b)  $(-6) + 2$

Q.20. Add without using number line  $(-217) + (-100)$

OR

Find the sum of :  $-50$ ,  $-200$  and  $300$

Q.21. Write the natural numbers from 2 to 12. What fraction of them are prime numbers?

Q.22. Ruhi received a CD player for her birthday. She bought 3 CDs and received 5 others as gifts. What fraction of her total CDs did she buy and what fraction did she received as gift?

#### Section-D

Q.23. A student multiplied by 7236 by 65 instead by 56. By how much was his answer greater than the correct answer?

OR

A vessel has 4 litres and 500 ml of curd. In how many glasses, each of 25ml capacity can it be filled?

Q.24. Give a rough estimate (by rounding off to nearest hundreds) and also a closer estimate (by rounding off to nearest tens)

$$4,89,348 - 48,365$$

Q.25. Study the pattern :

$$1 \times 8 + 1 = 9$$

$$12 \times 8 + 2 = 98$$

$$123 \times 8 + 3 = 987$$

$$1234 \times 8 + 4 = 9876$$

$$12345 \times 8 + 5 = 98765$$

Write the next two steps. Can you say how the pattern works?



Q.26. Find all factors of 1729 and arrange them in ascending order. Now state the relation, if any between two consecutive prime factors.

OR

Write the greatest 4 digit number and express it into prime factors.

Q.27. Draw any circle and mark

(a) centre (b) sector (c) segment (d) arc

Q.28. What shape is :

(a) brick (b) road roller (c) sweet Laddu (d) Match box

Q.29. Following is the list of temperatures of five places in India, on a particular day of the year :

PLACES	TEMPERATURES
Siachin	10°C below 0°C
Shimla	2°C below 0°C
Ahmedabad	30°C above 0°C
Delhi	20°C above 0°C
Srinagar	5°C below 0°C

- Write the temperature of these places in the form of Integers in the blank column.
- Plot the name of city against its temperature on number line
- Which is the coolest place?
- Write the names of places where temperatures are above 10°C.

Q.30. Sarita was given  $1\frac{1}{2}$  piece of cake and kusum was given  $1\frac{1}{3}$  piece of cake. Find the total amount of cake given to both of them.

OR

Complete the addition-subtraction box.

	$\frac{1}{2}$	$\frac{1}{3}$	
$\ominus$	$\frac{1}{3}$	$\frac{1}{4}$	
		$\oplus$	

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K. V. NER, BLY.

CLASS: VI

SUB: MATHS

SCORING KEYS

1 (a) 1000000

(1)

2 (b) 100

(1)

3 (d) 5

(1)

4 (a) 2

(1)

5 (b)  $360^\circ$

(1)

6 (c) -2

(1)

(7) 73 75307

(1)

73, 75, 307

(1)

(8) 11000, 11001

(1+1)

(9)  $\overrightarrow{AE}$  or  $\overrightarrow{BE}$  or  $\overrightarrow{DE}$  or  $\overrightarrow{FE}$

(1)

~~is~~  $(\overrightarrow{CO}, \overrightarrow{AE})$ ;  $(\overrightarrow{AE}, \overrightarrow{EF})$

$\frac{1}{2}$

$\frac{1}{2}$

10  $AD = AB + BC + CD = 1 + 1 + 1 = 3$  units

$\frac{1}{2}$

$DG = DE + EF + FG = 1 + 1 + 1 = 3$  units

$\frac{1}{2}$

$AD = DG$

$\frac{1}{2}$

Yes, D is mid point of AG

$\frac{1}{2}$

11 (a) Decrease in Weight

(1)

(b) Profit of ₹ 700

(1)

12 (a)  $\frac{8}{9}$

(1)

(b)  $\frac{3}{7}$

(1)

13 Sale of books in the first week = ₹ 2,85,891

$\frac{1}{2}$

Sale of books in the second week = ₹ 4,00,768

$\frac{1}{2}$

Sale of. for the two weeks together = ₹ 2,85,891 + ₹ 4,00,768

$\frac{1}{2}$

= ₹ 6,86,659

$\frac{1}{2}$

The sale was greater in the second week by

= ₹ 4,00,768 - ₹ 2,85,891

$\frac{1}{2}$

= ₹ 1,14,877

$\frac{1}{2}$

14

$81265 \times 169 - 81265 \times 69$

=  $81265 \times (169 - 69)$

(1)

=  $81265 \times 100$

$\frac{1}{2}$

= 8126500

$\frac{1}{2}$

15. 10824

Sum of the digits at odd places from right =  $4 + 8 + 1 = 13$

(1)

Sum of the digits at even places from the right =  $2 + 0 = 2$

(1)

Difference of these sums =  $13 - 2 = 11$

$\frac{1}{2}$

So 11 is divisible by 11

$\frac{1}{2}$



OR

1258

(i) Divisibility by 2, Unit's digit = 8

1258 is divisible by 2

(ii) Divisibility by 3, sum of digits =  $1+2+5+8=16$

1258 is not divisible by 3

since 1258 is divisible by 2 but not by 3, so

1258 is not divisible by 6

(1/2)  
(1/2)  
(1/2)  
(1/2)

(1)

16 Factors of 20 = 1, 2, 4, 5, 10, 20

Factors of 28 = 1, 2, 4, 7, 14, 28

Common Factors (20, 28) = 1, 2, 4

(1)

(1)

(1)

17. (a) Point in the interior of  $\angle DOE = A$

(b) Points in the exterior of  $\angle EOF = C, A, D$

(c) on  $\angle EOF = E, B, O, F$

(1)

(1)

(1)

18 (a) A Quadrilateral

(b) A Triangle

(c) A Pentagon

(1)

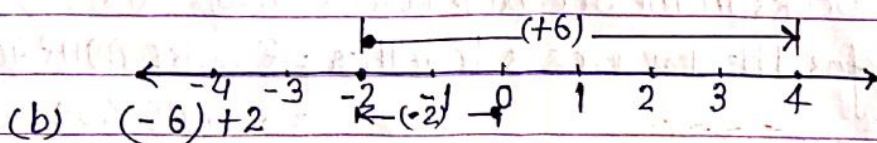
(1)

19 (a)  $(-2) + 6$

First we move 2 steps to the left of 0 reaching  $(-2)$  and then from this point, we move 6 steps to the right. We reach point  $+4$ , Thus  $(-2) + 6 = 4$

(1)

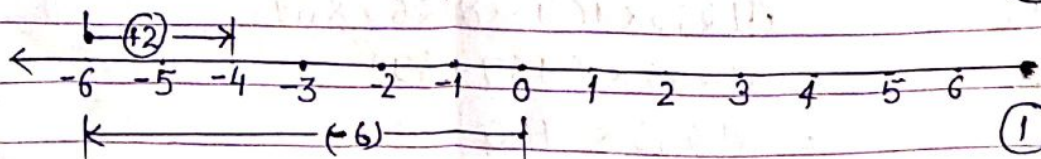
(1/2)



(1)

First we move 6 steps to the left of 0 reaching  $(-6)$  and then from this point, we move 2 steps to the right. We reach the point  $(-4)$  Thus  $(-6) + 2 = -4$

(1/2)



(1)

20.  $(-217) + (-100)$   
 $= -217 - 100$   
 $= -317$

(1/2)

(1/2)

OR



$$(-50) + (-200) + 300$$

$$= -50 - 200 + 300$$

$$= -250 + 300$$

$$= 50$$

(1)

(1)

(1)

21. The natural numbers from 2 to 12

$$= \{2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12\} = 11$$

(1)

Prime numbers between 2 to 12

$$= \{2, 3, 5, 7, 11\} = 5$$

(1)

$$\text{Required fraction} = \frac{5}{11}$$

(1)

22. Number of CDs bought = 3

No. of CDs as gifts = 5

$$\text{Total No. of CDs} = 3 + 5 = 8$$

(1)

Fraction of CDs that she bought =  $\frac{3}{8}$

(1)

Fraction of her total CDs that she received as gifts =  $\frac{5}{8}$

(1)

23.  $7236 \times 65 - 7236 \times 56$

(1)

$$= 7236 \times (65 - 56)$$

(1)

$$= 7236 \times 9$$

(1)

$$= 65,124$$

(1)

OR

$$4 \text{ L } 500 \text{ ml} = 4 \times 1000 + 500 \text{ ml}$$

(1)

$$= 4000 \text{ ml} + 500 \text{ ml}$$

$$= 4500 \text{ ml}$$

(1)

$$\text{No. of glasses} = \frac{4500}{25}$$

(1)

$$= 180$$

(1)

24 (i) Rough estimate: Rounding off to nearest hundreds

$$4,89,348 \approx 4,89,300$$

(1/2)

$$48,365 \approx 48,400$$

(1/2)

$$4,89,348 - 48,365 \approx 4,89,300 - 48,400$$

$$\approx 4,40,900$$

(1)

(ii) Closer estimate: Rounding off to nearest tens

$$4,89,348 \approx 4,89,350$$

(1/2)

$$48,365 \approx 48,370$$

(1/2)

$$4,89,348 - 48,365 \approx 4,89,350 - 48,370$$

$$\approx 4,40,980$$

(1)



25. Next two steps:  $123456 \times 8 + 6 = 987654$  (1)

$1234567 \times 8 + 7 = 9876543$  (1)

Working of the pattern:  $1 \times 8 + 1 = 9$

$(11+1) \times 8 + 2 = 12 \times 8 + 2 = 98$

$(111+11+1) \times 8 + 3 = 123 \times 8 + 3 = 987$

$(1111+111+11+1) \times 8 + 4 = 1234 \times 8 + 4 = 9876$

$(11111+1111+111+11+1) \times 8 + 5 = 12345 \times 8 + 5 = 98765$

$(111111+11111+1111+111+11+1) \times 8 + 6 = 123456 \times 8 + 6 = 987654$

$(1111111+111111+11111+1111+111+11+1) \times 8 + 7 = 1234567 \times 8 + 7 = 9876543$  (2)

26.  $1729 = 7 \times 13 \times 19$  (1)

Arranging prime factors in ascending order = 7, 13, 19 (1)

Relation between two consecutive prime factors

$13 - 7 = 6$

$19 - 13 = 6$  (1)

The difference between two consecutive prime factor is 6 (1)

27. Marking (a) circle (b) sector (c) segment (d) arc (4x1=4)

28. Shape of

(a) brick  $\rightarrow$  Cuboid (1)

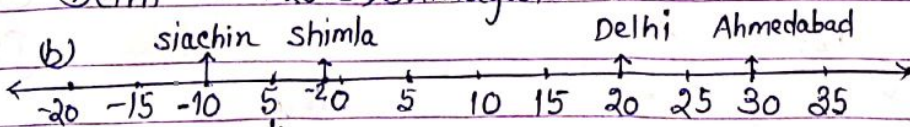
(b) road roller  $\rightarrow$  Cylinder (1)

(c) sweet Laddu  $\rightarrow$  Sphere (1)

(d) Match box  $\rightarrow$  Cuboid (1)

29. Siachin  $\rightarrow -10^\circ\text{C}$ , Shimla  $\rightarrow -2^\circ\text{C}$ , Ahmedabad  $\rightarrow +30^\circ\text{C}$

Delhi  $\rightarrow +20^\circ\text{C}$ , Srinagar  $\rightarrow -5^\circ\text{C}$  (1)



(c) coolest place: Siachin (1)

(d) Delhi  $20^\circ\text{C}$ , Ahmedabad  $30^\circ\text{C}$  (1)

30.

	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{5}{6}$
$\ominus$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{7}{12}$
$\downarrow$	$\frac{1}{6}$	$\frac{1}{12}$	$\frac{1}{4}$

(4x1=4)