



MULTIPLE CHOICE QUESTIONS

- 1) The successor of 99 is
 - (a) 99
 - (b) 98
 - (c) 100
 - (d) none of these.
- 2) The predecessor of 100 is
 - (a) 101
 - (b) 100
 - (c) 99
 - (d) none of these
- 3) The natural number that has no predecessor is
 - (a) 1
 - (b) 10
 - (c) 100
 - (d) 1000.
- 4) The difference between the successor of a number and the number it self is
 - (a) 0
 - (b) $- 1$
 - (c) 1
 - (d) none of these.
- 5) The smallest whole number is
 - (a) 0
 - (b) 1
 - (c) -1
 - (d) none of these
- 6) Which of the following statement is true?
 - (a) All natural numbers are also whole numbers.
 - (b) All whole numbers are also natural numbers.
 - (c) There is no smallest whole number.
 - (d) The greatest whole number is 100.

7) How many natural numbers are there between 1 and 10?

- (a) 6
- (b) 7
- (c) 8
- (d) 9.

8) $3 + 5 = 5 + 3$

The above is known as

- (a) closure property
- (b) commutativity of addition
- (c) commutativity of multiplication
- (d) none of these.

9) Write the next natural number after 10999.

- (a). 11000
- (b) 10100
- (c) 10010
- (d) all of the above

SHORT QUESTION:

1. Write the predecessor and successor of

- (a) 1997
- (b) 12000

2. Find $8 \times 1769 \times 25$.

3. Find 12×35 using distributivity.

4. What is the difference between the largest number of 5 digits and the smallest 6 digit?

5. The product of two whole numbers is zero. What do you conclude?

6. Find $7 + 18 + 13$.

LONG QUESTION

1 In each of the following pairs of numbers, state which whole number is on the left of the other number on the number line. Also write them with the appropriate sign ($>$, $<$) between them.

- (a) 530, 503
- (b) 98765, 56789
- (c) 9830415, 10023001

2 A taxi driver filled his car petrol tank with 40 litre of petrol on Monday. The next day he filled the tank with 50 litres of petrol. If the petrol costs ₹ 44 per litre, how much did he spend in all on petrol?

3 A vendor supplies 32 litres of milk to a hotel in the morning and 68 litres of milk in the evening. If the milk costs ₹ 15 per litre, how much money is due to the vendor per day?

COMPETENCY BASED QUESTION :-

1. Study the pattern:

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

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

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

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

$$123 \times 8 + 3 = 987$$
 Write the next two steps?

2. The school canteen charges 20 for lunch and ₹ 4 for milk for each day. How much money do you spend in 5 days on these things?

3. Simplify $126 \times 55 + 126 \times 45$.

4. Find using distributive property.

(a) 5437×10001

(b) 824×25 .

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Chapter – 3

PLAYING WITH NUMBERS

MULTIPLE CHOICE QUESTION

1. The only prime number which is also even

(a) 1

(b) 2

(c) 4

(d) 6

2. The smallest composite number is

(a) 1

(b) 2

(c) 3

(d) 4

3. Two numbers having only 1 as common factor are called

(a) Prime numbers

(b) Co- prime numbers

(c) Composite numbers

(d) Odd numbers

4. How many factors does 36 has

(a) 7

(b) 9

(c) 10

(d) 8

5. Which number is neither prime nor composite

(a) 0

(b) 1

(c) 2

(d) 3

6. What are the prime factors of greatest 4 –digit number

- (a) $3 \times 3 \times 11 \times 101$ (b) $9 \times 11 \times 101$ (c) $3 \times 33 \times 101$ (d) $3 \times 3 \times 11 \times 11$

7. Divisibility by 2, 5, 10 can be checked by

- (a) sum of digits (b) last digit (c) last two digits (d) last three digits

8. $4 = 2 \times 2$, $15 = 3 \times 5$, so H.C.F. of 4 and 15 is

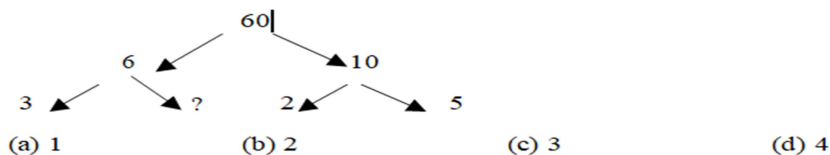
- (a) 0 (b) 1 (c) 2 (d) 3

9. Which of the following is divisible by 9?

- (a) 15287 (b) 15267 (c) 15286 (d) 152638

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The missing number is:



VERY SHORT QUESTIONS

1. Find all the multiples of 9 upto 100.

2. The numbers 13 and 31 are prime numbers. Both these numbers have same digits 1 and 3. Find such pairs of prime numbers upto 100.

3. Express the following as the sum of two odd primes.

- (a) 44 (b) 36 (c) 24 (d) 18

4. Write all the numbers less than 100 which are common multiples of 3 and 4.

5. A number is divisible by both 5 and 12. By which other number will that number be always divisible?

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

7. The sum of two consecutive odd numbers is divisible by 4. Verify this statement with the help of some examples.

8. The HCF of two consecutive even numbers is _____.

9. State whether the following statement is true or false.
Any two prime numbers are always co-prime numbers.

10. Test the divisibility of the following number by 11:

- (i) 5335 (ii) 70169803 (iii) 10000001

SHORT QUESTIONS

1. The sum of two numbers is 25 and their product is 144. Find the numbers.
2. Find the greatest number which divides 82 and 132 leaving 1 and 6, respectively as remainders.
3. Is it correct to say that the HCF of 8 and 15 is 0? If not, why?
4. Calculate the highest common factor (HCF) of 150, 240 and 300.
5. Write the smallest 5-digit number and express it as a product of primes.

COMPETENCY BASED QUESTIONS

1. The LCM and the HCF of the numbers a and b are 120 and 4 respectively. If $a = 24$, then find the value of b .
2. I am a multiple of 6 and 8. I give a prime number when 1 is subtracted from me and I give a prime number when 1 is added to me. Who am I?
3. My phone number is $_2_5_513$, where the missing numbers are the prime factors of the number 140 arranged in ascending order. What is my phone number?
4. What is the smallest number that has four different prime factors?
5. Find the largest number which can exactly divide 216, 360 and 504.

LONG QUESTIONS

1. Columbia County and Grant County are gathering groups of runners to run a relay race. Columbia County recruits runners in groups of 4 while Grant County recruits runners in groups of 10. If both counties end up with the same number of runners, what is the smallest number of runners each must have recruited?
2. Jennifer is buying nuts and bolts at a local hardware store. The store sells nuts in packs of 9 and bolts in packs of 15. If Jennifer wishes to buy the same number of nuts and bolts, what is the smallest number of nuts that she can buy?
3. Two bikers A and B are riding a circular path. A and B complete a round in 24 minutes and 30 minutes respectively. If both of them started at the same point and at the same time, after how much time will they meet again at the starting point?
4. 11 cows, 185 sheep and 296 goats are to be taken across a river. There is only one boat and the boatman says; he will take the same number and same kind of animals in each trip. Find the largest number of animals in each trip and the number of trips he will have to make.
5. In a seminar, the number of participants in Mathematics, Physics and Chemistry are 60, 96 and 144 respectively. Find the number of rooms required if in each room, the same number of participants are to be seated and all of them are to be in the same subject.

CH 6 INTEGERS

MULTIPLE CHOICE QUESTIONS

1. 2 subtracted from 7 gives:

- (a) -9 (b) 5 (c) -5 (d) 9

2. In addition and subtraction of the integers the sign of answer depends upon:

- (a) smaller Number (b) their Difference
(c) their Sum (d) greater numerical value

3. 7 steps to the left of 4 on number line gives:

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

4. Which of the following set of numbers is in descending orders?

- (a) 2, -2, 1, -1 (b) 0, 1, 2, 3
(c) 1, 0, -1, -2 (d) -3, -2, -1, 0

5. Sum of a negative and a positive integer is:

- (a) always negative (b) either positive or negative
(c) always positive (d) zero

6. Which of the following statement is false?

- (a) $-4 > -5$ (b) $-4 < 5$ (c) $4 < -5$ (d) $4 > -5$

7. Seema and Trupti visited Leh and Tawang respectively during winter. Seema reported that she had experienced -4°C on Sunday, while Trupti reported that she had experienced -2°C on that day. On that Sunday

- (A) Leh was cooler than Tawang. (B) Leh was hotter than Tawang.
(C) Leh was as cool as Tawang. (D) Tawang was cooler than Leh.

8. Which of the following is in increasing order?

- (a) 0, 1, -1 (b) -1, -2, -3
(c) -1, 0, 1 (d) -1, 1, -2

9. Which of the following will give answer with negative sign?

- (a) $-48 + 79$ (b) $-40 + 40$
(c) $-18 + 30$ (d) $48 + (-39)$

10. The pair of integers whose sum is -5:

- (a) 1, -4 (b) -1, 6 (c) -3, -2 (d) 5, 0

SHORT QUESTIONS

- Represent the following using integers with proper sign:
 - 5 km above sea level
 - A loss of Rs 100
- Find the sum of the pairs of integers:
 - $-6, -5$
 - $+6, -4$
 - $+8, -2$
- Find the sum of -5 and -3 , using the number line.
- How many integers are there between -10 and -1 ?
- Calculate: $1 - 2 + 3 - 4 + 5 - 6 + 7 - 8 + 9 - 10$
- The sum of two integers is 47. If one of the integers is -24 , find the other.
- Write the digits 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 in this order and insert '+' or '-' between them to get the result
 - 5
 - -3

LONG QUESTIONS

- Match the items of Column I with that of Column II:

Column I	Column II
(i) The additive inverse of +2	(A) 0
(ii) The greatest negative integer	(B) -2
(iii) The greatest negative even integer	(C) 2
(iv) The smallest integer greater than every negative integer	(D) 1
(v) Sum of predecessor and successor of -1	(E) -1

- Compute each of the following:

- $30 + (-25) + (-10)$
- $(-20) + (-5)$
- $70 + (-20) + (-30)$

(d) $-50 + (-60) + 50$

(e) $1 + (-2) + (-3) + (-4)$

(f) $0 + (-5) + (-2)$

(g) $0 - (-6) - (+6)$

(h) $0 - 2 - (-2)$

3. Temperature of a place at 12:00 noon was $+5^{\circ}\text{C}$. Temperature increased by 3°C in first hour and decreased by 1°C in the second hour. What was the temperature at 2:00 pm?

4. Write six distinct integers whose sum is 7.

5. Arrange the following integers in the ascending order: $-2, 1, 0, -3, +4, -5$

6. Arrange the following integers in the descending order: $-3, 0, -1, -4, -3, -6$

7. Sum of two integers is -80 . If one of the integers is -90 , then find the other.

COMPETENCY BASED QUESTIONS

1. Write the digits 0, 1, 2, 3, ..., 9 in this order and insert '+' or '-' between them to get the result 3.

2. Observe the following:

$1 + 2 - 3 + 4 + 5 - 6 - 7 + 8 - 9 = -5$ Change one '-' sign as '+' sign to get the sum 9.

3. . If we are at 8 on the number line, in which direction should we move to reach the integer (a) -5 (b) 11 (c) 0?

4. The faces of two dice are marked $+1, +2, +3, +4, +5, +6$ and $-1, -2, -3, -4, -5, -6$, respectively. Two players throw the pair of dice alternately and record the sum of the numbers that turn up each time and keep adding their scores separately. The player whose score reaches 20 or more first, wins the game.

(i) What can be the possible scores in a single throw of the pair of dice?

- (ii) What is the maximum score?
- (iii) What is the minimum score?
- (iv) A player gets his score 20 as follows: $(5) + (-4) + (6) + (2) + (+5) + (4) + (2)$
Is he a winner?
- (v) What is the minimum number of throws needed to win the game?

5. The statement "When an integer is added to itself, the sum is greater than the integer" is (A) always true (B) never true (C) true only when the integer is positive (D) true for non-negative integers

APPLICATION BASED QUESTIONS

1. A man is standing at -5 on the number line. In which direction and how many steps should he move to reach at -11?
2. Subtract the sum of -16 and -26 from the sum of 25 and -40.
3. Simplify :
 $1 + (-3) + 5 + (-7) + 9 + (-11) + 13 + (-15)$
4. Write the integer which is 4 more than its additive inverse. 68. Write the integer which is 2 less than its additive inverse.
5. Write two integers whose sum is 6 and difference is also 6.
6. Write four pairs of integers which are at the same distance from 2 on the number line.
7. Write five integers which are less than -100 but greater than -150.
