EXERCISE # 1

A. Multiple Choice Type Questions

Q.1 The additive identity of integers is
(a) –1   (B) I
(C) 0   (D) none of these

Q.2 The smallest negative integer is
(A) 0   (B) – 100
(C) –1   (D) none of these

Q.3 The greatest positive integer is
(A) 0   (B) 100
(C) 999   (D) none of these

Q.4 The integer which is its own additive inverse is
(A) 0   (B) –1
(C) +1   (D) none of these

Q.5 The value of $5(10 – 9)$ is
(A) 5   (B) $5 \times 10 – 5 \times 9$
(C) (A) and (B)   (D) none of these

Q.6 The absolute value of –6 is
(A) 6   (B) –6
(C) 0   (D) none of these

Q.7 If $4 + (–7) = (–7) + 4$, this property of integers is called
(A) Closure   (B) Commutative
(C) Associative   (D) None of these

Q.8 If $[–7 + (–8)] + 9 = –7 + [(–8) + 9]$, this property is called
(A) Closure   (B) Commutative
(C) Associative   (D) None of these

Q.9 The sum of two integers is also an integer, this property of integers is called
(A) Closure   (B) Commutative
(C) Associative   (D) None of these

Q.10 If a and b are integers, then $a \div b$
(A) may or may not be an integer
(B) always an integer
(C) never be an integer
(D) none of these

B. Short Answer Type Questions

Q.11 Evaluate the following :
(i) $(– 40) \div 10$
(ii) $60 \div (–6)$
(iii) $(– 49) \div (–7)$
(iv) $(–79) \div 79$
(v) $13 \div [(–4) + 3]$
(vi) $0 \div (–14)$
(vii) $(– 41) \div [(– 40) + (–1)]$
(viii) $[(– 48) \div 12] \div 4$
(ix) Is $[(–7) + (6)] = [(–3) + 2]$?

Q.12 Write down a pair of integers whose :
(i) sum is – 7   (ii) difference is –10
(iii) sum is 0

Q.13 Write the value of
(i) $| +22 |$
(ii) $|–8|$
(iii) $| 18 – 8 |$
(iv) $|– 5 – 4 |$
(v) $–| 3 – 2 |$

Q.14 Arrange the following integers in ascending order
(i) $– 20, 13, 4, 0, –5, +5$
(ii) $+30, –2, 0, –6, –20, 8$

Q.15 Which temperature is higher ?
(i) 40°C or –40°C   (ii) –18°C or 12°C
(iii) –2°C or –4°C   (iv) 17°C or 27°C

Q.16 A water tank has steps inside it. A monkey is sitting on the toppest step (i.e., the first step). The water level is at the ninth step.
(i) He jumps 3 steps down and then jumps 2 steps up. If he continues in this way, in how many jumps will he reach the water level ?
(ii) After drinking water, he wants to go back, for this he jumps 4 steps up and then jumps 2 steps down in every move. In how many jumps will he reach back the top step ?

Q.17 Match column A with column B

	Column A	Column B
(i)	|−7|	(a) Distributive property
(ii)	$x \times 1 = 1 \times x = x$	(b) 7
(iii)	$x \times (y + z) = x \times y + x \times z$	(c) Multiplicative identity
(iv)	$x \div 0$	(d) 20
(v)	$-2 \times (-7 - 3)$	(e) Not defined
(vi)	$-31 \times 0 \times (-1) \times 151$	(f) Commutative Property
(vii)	$a \times b = b \times a$	(g) Zero

Q.18 Match column A with column B

	Column A	Column B
(i)	$-a \times b = b \times (-a)$	(a) 1
(ii)	$[6 + 4] + (-3) = 6 + [4 + (-3)]$	(b) 0 is additive identity of integers
(iii)	$-9 - (-19)$	(c) Commutative property
(iv)	$0 + 5 = 5 + 0 = 5$	(d) Associative property
(v)	$(-709) \div (+ 709)$	(e) 10
(vi)	$(-1)^6$	(f) −1

Q.19 Verify and name the property used :

(i) $-110 \times (-237) = (-237) \times (-110)$

(ii) $(-35 \times 4) \times (-152) = -35 \times [4 \times (-152)]$

Q.20 Verify and name the property used :

(i) $-117 \times 251 + (-117) \times 249$

(ii) $156 \times 273 - 156 \times (-73)$

C. Long Answer Type Questions

Q.21 Verify that :

$a \div (b + c) \neq (a \div b) + (a \div c)$, if $a = 12$, $b = -4$, $c = 2$.

Q.22 The temperature at 12 noon was 10°C above zero. At what time the temperature will be 8°C below 0°C, if it decreases at the rate of 2°C ? If it decreases at the rate of 2°C per hour till midnight, what would be the temperature at mid-night ?

Q.23 In a class test (+3) marks are given for every correct answer and (−2) marks are given for every incorrect answer and no marks for not attempting any questions.

(i) Ram scored 20 marks. If he has got 12 correct answers, how many questions has he attempted incorrectly ?

(ii) Mohan scores −5 marks in the test though he has written 7 correct answers. How many questions has he attempted incorrectly ?

Q.24 A boy has J-350 in his bank account. He deposits J-40 everyday for 10 days. What will be the amount in his account at the end of 10 days ?

Q.25 In a class test containing 10 questions, 5 marks are answered for every correct answer and (−2) marks are awarded for every incorrect answer and 0 for questions not attempted .

(i) Mohan gets four correct and six incorrect answers. What is his score ?

(ii) Reshma gets five correct answer and five incorrect answers. What is her score ?

(iii) Heena gets two correct and five incorrect answers out of seven questions she attempts. What is her score ?

Q.26 A cement company earns a profit of J-11 per bag of white cement sold out a loss of J-6 per bag of grey cement sold.

(i) The company sells 4,000 bags of cement and 8,000 bags of grey cemen. month. What is its profit or loss ?

(ii) What is the number of white cement bags it must sell to have neither profit nor loss, if the number of grey bags sold is 1,100 bags.

Q.27 Find

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(i) a pair of negative integers whose difference gives 6.

(ii) a pair of negative integers whose difference gives –9.

(iii) a negative integer and a positive integer whose difference is –15.

(iv) a negative integer and a positive integer whose difference is 16.

Q.28 An elevator descends into a mineshaft at the rate of 7m/min. If the descent starts from 15 m above the ground level, how long will it take to reach 475 m ?

Q.29 Find the value of :

$72 - [3 + \{18 - \overline{19 - 2} \}] \div \{1 + 5 \text{ of } 7 - (3 - 1)\}$

Q.30 Find the value of :

$5 \div [5 + \{5 - (5 + \overline{5 - 5})\}]$

integers

Answers Ex 1

1. C 2. D 3. D 4. A 5. C 6. A 7. B 8. C 9. A 10. A

11. (i) –4 (ii) –10 (iii) 7 (iv) –1 (v) –13 (vi) 0 (vii) 1 (viii) –1 (ix) yes

12. (i) –1, –6 or –9, 2 (ii) –11, –1 or 35, –45 (iii) –1, 1 or 20, –20

13. (i) 22 (ii) 8 (iii) 10 (iv) 9 (v) –1

14. (i) –20, –5, 0, 4, 5, 13 (ii) –20, –6, –2, 0, 8, 30

15. (i) 40°C (ii) 12°C (iii) –2°C (iv) 27°C

16. (i) 11 times (ii) 5 times

17. (i) b (ii) c (iii) a (iv) e (v) d (vi) g (vii) f

18. (i) c (ii) d (iii) e (iv) b (v) f (vi) a

19. (i) Commutative property of multiplication. (ii) Associative property of multiplication.

20. (i) Distributive property of multiplication over addition
    (ii) Distributive property of multiplication over subtraction

22. 9 pm, –14°C 23. (i) 8 (ii) 13

24. ₹ 750 25. (i) 8 marks (ii) 15 marks (iii) 0 mark

26. (i) Loss of ₹ 4,000 (ii) 600 bags

27. (i) –3, –9 (ii) –10, –1 (iii) –8, 7 (iv) 1, –15

28. 1 hr 10 min.

29. 2

30. 1

integers class 7

A. Multiple Choice Type Questions

Q.1 Every integer is also a
(A) natural number
(B) whole number
(C) (A) and (B) both
(D) none of these

Q.2 When 0 is multiplied by any negative integer, their product will be
(A) a positive integer
(B) a negative integer
(C) zero
(D) none of these

Q.3 The sum of two integers is always
(A) a natural number
(B) a whole number
(C) an integer
(D) none of these

Q.4 The multiplicative identity of integers is
(A) 0
(B) +1
(C) –1
(D) none of these

Q.5 Every positive integer is greater than
(A) zero
(B) every negative integer
(C) both (A) and (B)
(D) none of these

B. True/False Type Questions

Q.6 The greatest positive integer is 100.

Q.7 The smallest negative integer is not defined.

Q.8 Zero is positive integer.

Q.9 Every negative integer is greater than every positive integer.

Q.10 Zero is less than every positive integer.

Q.11 Division in integers is closed.

Q.12 On dividing any integer by zero, the result is always zero.

Q.13 $18 - |-12|$ is equal to 6.

Q.14 $|-50|$ is equal to -50.

Q.15 Additive inverse of zero is 1.

C. Fill in the Blanks Type Questions

Q.16 The product of 200 negative integers is .... integer.

Q.17 The product of 999 negative and 999 positive integers is ....

Q.18 The absolute value of $-35 + 25 =$ . ...

Q.19 Which temperature is greater $-110°C$ or $110°C$? ....

Q.20 At noon the temperature was 30°C. One hour later it was 6°C lower. The temperature after an hour was ....

Q.21 The additive inverse of 0 is ....

Q.22 The product of 58 negative integers is a .... integer.

Q.23 By which integer $-(700)$ must be divided to get the quotient 700 ? .....

Q.24 When we divide a negative integer by a positive integer, the result so obtained is ....

Q.25 A negative integer is always .... than its additive inverse.

Q.26 The value of $| 28 - 18 |$ is ....

Q.27 The smallest negative integer is ......

Q.28 $(-111) \div$ .... $= 1$

Q.29 $8 + (9 + 7) = (8 + 9) +$ ....

Q.30 Additive inverse of negative integer is... always.

Q.31 Julius Caesar was born in 100 B.C. and was 66 years old when he died. In which year did he die?

Q.32 A certain freezing process requires that room temperature be lowered from 43°C at the rate of 8°C every hour. What will be the room temperature 6 hours after the process begins ?

Q.33 The temperature at 12 noon was 15°C above zero. If it decreases at the rate of 3°C per hour until midnight, at what time would the temperature be 9°C below zero ?

Integers

ANSWER KEY

1. D	2. C	3. C	4. B	5. C
6. F	7. T	8. F	9. F	10. T
11. F	12. F	13. T	14. F	15. F
16. positive	17. negative	18. 10	19. 110°C	20. 24°C
21. 0	22. positive	23. –1	24. negative integer	25. less
26. 10	27. does not exist	28. –111	29. 7	
30. positive integer	31. 34 B.C.	32. –5°C	33. 8 pm	

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