## Number System and its Operations



## QUESTIONS

| 1. | Which of the following statements is correct?                                                                  |                      |  |  |  |
|----|----------------------------------------------------------------------------------------------------------------|----------------------|--|--|--|
|    | (a) In Indian numeration system, the number 81532598 is written, using Commas, as 81,532,598                   |                      |  |  |  |
|    | (b) Numbers having more than two factors are called composite numbers.                                         |                      |  |  |  |
|    | (c) The number 8929 rounded off to its nearest hundred is 9000.                                                |                      |  |  |  |
|    | (d) All the above                                                                                              |                      |  |  |  |
|    | (e) None of these                                                                                              |                      |  |  |  |
| 2. | The smallest five digit number with different digits is                                                        |                      |  |  |  |
|    | (a) 98765                                                                                                      | (b) 12345            |  |  |  |
|    | (c) 10234                                                                                                      | (d) 18239            |  |  |  |
|    | (e) None of these                                                                                              |                      |  |  |  |
| 3. | 10 billion is equal to                                                                                         |                      |  |  |  |
|    | (a) 10 millions                                                                                                | (b) 10000 millions   |  |  |  |
|    | (c) 1000 crores                                                                                                | (d) Both (b) and (c) |  |  |  |
|    | (e) None of these                                                                                              |                      |  |  |  |
| 4. | Population of Kanpur and Lucknow districts in the year 2011 was 45, 72, 951 and 45, 88, 455 respectively. What |                      |  |  |  |
|    | was the total population of the two districts in that year?                                                    |                      |  |  |  |
|    | (a) 81, 71, 576                                                                                                | (b) 91, 61, 506      |  |  |  |
|    | (c) 91, 61, 406                                                                                                | (d) 90, 79, 506      |  |  |  |
|    | (e) None of these                                                                                              |                      |  |  |  |
| 5. | Which one of the following pairs is not co-prime?                                                              |                      |  |  |  |
|    | (a) 21, 22                                                                                                     | (b) 32, 33           |  |  |  |
|    | (c) 11, 14                                                                                                     | (d) 21, 24           |  |  |  |
|    | (e) None of these                                                                                              |                      |  |  |  |
| 6. | The sum of the prime factors of 1155 is                                                                        |                      |  |  |  |
|    | (a) 24                                                                                                         | (b) 26               |  |  |  |
|    | (c) 27                                                                                                         | (d) 29               |  |  |  |
|    | (e) None of these                                                                                              |                      |  |  |  |
| 7. | A number is divisible by 3 and 12. The number may not be                                                       |                      |  |  |  |
|    | (a) 60                                                                                                         | (b) 450              |  |  |  |
|    | (c) 312                                                                                                        | (d) 288              |  |  |  |
|    | (e) None of these                                                                                              |                      |  |  |  |
| 8. | The number nearest to 700000 which is exactly divisible by 11, 13, 15, 17 and 18 is                            |                      |  |  |  |
|    | (a) 656370                                                                                                     | (b) 875160           |  |  |  |
|    | (c) 686370                                                                                                     | (d) 688570           |  |  |  |
|    | (e) None of these                                                                                              |                      |  |  |  |

| 9.  | If $3758925^*$ is divisible by 11, then the digit at $*$ is                                                     |                       |  |  |  |
|-----|-----------------------------------------------------------------------------------------------------------------|-----------------------|--|--|--|
|     | (a) 2                                                                                                           | (b) 5                 |  |  |  |
|     | (c) 4                                                                                                           | (d) 3                 |  |  |  |
|     | (e) None of these                                                                                               |                       |  |  |  |
| 10. | Identify the least Roman numerals from the following.                                                           |                       |  |  |  |
|     | MDCCCLXXXIX                                                                                                     |                       |  |  |  |
|     | MCMLXXXI                                                                                                        |                       |  |  |  |
|     | MCMXVIII                                                                                                        |                       |  |  |  |
|     | MDLXVII                                                                                                         |                       |  |  |  |
|     | MCDXCIX                                                                                                         |                       |  |  |  |
|     | (a) MDCCCLXXXIX                                                                                                 | (b) MCDXCIX           |  |  |  |
|     | (c) MDLXVII                                                                                                     | (d) MCMXVIII          |  |  |  |
|     | (e) None of these                                                                                               |                       |  |  |  |
| 11. | Which one of the following number is divisible by 77?                                                           |                       |  |  |  |
|     | (a) 3146                                                                                                        | (b) 1870              |  |  |  |
|     | (c) 2541                                                                                                        | (d) 3780              |  |  |  |
|     | (e) None of these                                                                                               |                       |  |  |  |
| 12. | Which among the following statements is false for Roman numeration?                                             |                       |  |  |  |
|     | (a) A symbol is not repeated more than three times.                                                             |                       |  |  |  |
|     | (b) If a symbol is repeated, its value is multiplied as many times as it occurs,                                |                       |  |  |  |
|     | (c) The symbols V, L and D are never repeated.                                                                  |                       |  |  |  |
|     | (d) The symbols V, L and D are never written to the left of a symbol of greater value.                          |                       |  |  |  |
|     | (e) None of these                                                                                               |                       |  |  |  |
| 13. | The product of the place values of two 7's in 4789765 is                                                        |                       |  |  |  |
|     | (a) 4900000                                                                                                     | (b) 49000000          |  |  |  |
|     | (c) 49000000                                                                                                    | (d) 49                |  |  |  |
|     | (e) None of these                                                                                               |                       |  |  |  |
| 14. | A whole number is added to 69 and the same number is subtracted from 69. Find the sum of the resulting numbers. |                       |  |  |  |
|     | (a) 69                                                                                                          | (b) 128               |  |  |  |
|     | (c) 138                                                                                                         | (d) 0                 |  |  |  |
|     | (e) None of these                                                                                               |                       |  |  |  |
| 15. | Radius of the earth is 6,371 km and the radius of the Jupiter is 69911000 m whose radius is bigger and by how   |                       |  |  |  |
|     | much?                                                                                                           |                       |  |  |  |
|     | (a) Jupiter, 6354 km                                                                                            | (b) Jupiter, 63540 km |  |  |  |
|     | (c) Earth, 6354 km                                                                                              | (d) Earth, 354 km     |  |  |  |
|     | (e) None of these                                                                                               |                       |  |  |  |

| 16. | The procedure of the product of $700 \times 6789$ by using distributive property is shown below:              |                                                                                            |  |  |  |
|-----|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--|--|--|
|     | $708 \times 6789 = (700 + 8) \times 6789 = (700 \times 6789) + (8 \times 6789) = (A) + 54312 = C$             |                                                                                            |  |  |  |
|     | Find the values of A and C.                                                                                   |                                                                                            |  |  |  |
|     | (a) A = 4642300, C = 4805512                                                                                  | (b) A = 4752300, C = 4806612                                                               |  |  |  |
|     | (c) A = 4748300, C = 4608612                                                                                  | (d) $A = 4652300, C = 4806412$                                                             |  |  |  |
|     | (e) None of these                                                                                             |                                                                                            |  |  |  |
| 17. | The product of two consecutive whole numbers is always divisible by                                           |                                                                                            |  |  |  |
|     | (a) 2                                                                                                         | (b) 3                                                                                      |  |  |  |
|     | (c) 4                                                                                                         | (d) 8                                                                                      |  |  |  |
|     | (e) None of these                                                                                             |                                                                                            |  |  |  |
| 18. | It two given numbers are divisible by a number, then                                                          |                                                                                            |  |  |  |
|     | (a) their sum is also divisible by that numb                                                                  | (a) their sum is also divisible by that number                                             |  |  |  |
|     | (b) their difference is also divisible by that number                                                         |                                                                                            |  |  |  |
|     | (c) Both (a) and (b) are correct                                                                              |                                                                                            |  |  |  |
|     | (d) Either (a) or (b) are correct                                                                             |                                                                                            |  |  |  |
|     | (e) None of these                                                                                             |                                                                                            |  |  |  |
| 19. | Which one of the following numbers in Ro                                                                      | oman numerals is correct?                                                                  |  |  |  |
|     | (a) CLDL                                                                                                      | (b) VDC                                                                                    |  |  |  |
|     | (c) LDC                                                                                                       | (d) CDLX                                                                                   |  |  |  |
|     | (e) None of these                                                                                             |                                                                                            |  |  |  |
| 20. | The number, for which the sum of all its fa                                                                   | The number, for which the sum of all its factors is equal to twice the number, is Called 3 |  |  |  |
|     | (a) Super number                                                                                              | (b) Super prime number                                                                     |  |  |  |
|     | (c) Perfect number                                                                                            | (d) Perfect prime number                                                                   |  |  |  |
|     | (e) None of these                                                                                             |                                                                                            |  |  |  |
| 21. | If $A = 15$ , $B = 16$ and $C = 17$ , then which of the following is not true?                                |                                                                                            |  |  |  |
|     | (a) $(A + B) + C = A + (B + C)$                                                                               |                                                                                            |  |  |  |
|     | (b) $(A \times B) \times C = A \times (B \times C)$                                                           |                                                                                            |  |  |  |
|     | (C) A + $(B \times C) = (A \times B) + (B \times C)$                                                          |                                                                                            |  |  |  |
|     | (d) $A \times (B + C) = (A \times B) + (A \times C)$                                                          |                                                                                            |  |  |  |
|     | (e) None of these                                                                                             |                                                                                            |  |  |  |
| 22. | The largest number which always divides the product of the predecessor and successor of an odd natural number |                                                                                            |  |  |  |
|     | (other than 1) is                                                                                             |                                                                                            |  |  |  |
|     | (a) 4                                                                                                         | (b) 6                                                                                      |  |  |  |
|     | (c) 8                                                                                                         | (d) 7                                                                                      |  |  |  |

(e) None of these

23. The sum of the number 380598 and the number obtained by reversing its (a) 1267581 (b) 1275681 (c) 1276581 (d) 1257681 (e) None of these 24. Write the smallest four digit number by using one digit twice from 0, 8, 7. (b) 0087 (a) 7800 (c) 7008 (d) 7080 (e) None of these 25. What must be subtracted from 1000011 to get 234569 (a) 754842 (b) 765432 (c) 675432 (d) 765442 (e) None of these 26. A Garment factory produced 560738 Jeans, 160835 Trousers and some shirts. If total production of all three items in a year is 870703, then find the number of shirts produced in (a) 139209 (b) 149129 (c) 329139 (d) 149139 (e) None of these 27. In a six digit number digit at ten's place is 1 less than the digit at thousand's place and 2 more than the digit at ten thousand's place. Also the digit at hundred's place is 3 more than the digit at lakh's place. If digits at unit's lace, ten's place and lakh's place are 0, 2 and 3 respectively then write the number (a) 203620 (b) 303620 (c) 343620 (d) 363020 (e) None of these 28. Identify the wrong one in the following. (a) 1 lakh = 1000 hundreds(b) 1 crore = 10,000 thousands (c) 1 thousand = 1000 tens (d) 10 crore = 1000 lakhs(e) None of these 29. If a number is divisible by two co-prime numbers, (a) the number is divisible by their product also. (b) the number may not divisible by their product. (c) the number is divisible by their sum. (d) the number is not divisible by their sum. (e) None of these

| 30. | Find the sum of the greatest and the least five digit numbers formed by 0, 1, 7, 5, 2.                                 |             |  |  |  |
|-----|------------------------------------------------------------------------------------------------------------------------|-------------|--|--|--|
|     | (a) 83268                                                                                                              | (b) 85467   |  |  |  |
|     | (c) 75498                                                                                                              | (d) 85487   |  |  |  |
|     | (e) None of these                                                                                                      |             |  |  |  |
| 31. | In a survey over a town it was found that one out of every 27 persons is illiterate. If the population of the town was |             |  |  |  |
|     | 495612, then how many illiterate persons were there in the town?                                                       |             |  |  |  |
|     | (a) 18356                                                                                                              | (b) 19364   |  |  |  |
|     | (c) 17358                                                                                                              | (d) 18652   |  |  |  |
|     | (e) None of these                                                                                                      |             |  |  |  |
| 32. | The number of common prime factors of 462, 378 and 546 is                                                              |             |  |  |  |
|     | (a) 1                                                                                                                  | (b) 2       |  |  |  |
|     | (c) 3                                                                                                                  | (d) 4       |  |  |  |
|     | (e) None of these                                                                                                      |             |  |  |  |
| 33. | A mobile number consists of ten digits. First four digits are 9, 9, 9 and 9. The last three digits are 7, 8 and 9. The |             |  |  |  |
|     | remaining digits are distinct and make the mobile number the greatest possible number. Find these digits.              |             |  |  |  |
|     | (a) 6, 5, 4                                                                                                            | (b) 6, 5, 0 |  |  |  |
|     | (c) 6, 5, 7                                                                                                            | (d) 5, 6, 4 |  |  |  |
|     | (e) None of these                                                                                                      |             |  |  |  |
| 34. | Evaluate: $\left[\left\{ (364 \times 8) + 85 \right\} - 3474 \div 9 \right] + 3 \times 15 \div 5$                      |             |  |  |  |
|     | (a) 2620                                                                                                               | (b) 7833    |  |  |  |
|     | (c) 1620                                                                                                               | (d) 6833    |  |  |  |
|     | (e) None of these                                                                                                      |             |  |  |  |
| 35. | A box Contains 5 strips having 16 Capsules of 250 mg medicine in each Capsule. Find the total weight of medicine       |             |  |  |  |
|     | (in grams) in 24 such boxes.                                                                                           |             |  |  |  |
|     | (a) 480000                                                                                                             | (b) 380000  |  |  |  |
|     | (c) 480                                                                                                                | (d) 380     |  |  |  |
|     | (e) None of these                                                                                                      |             |  |  |  |
| 36. | The greatest four digit number, which is exactly divisible by 12, 22, 32 and 3D IS                                     |             |  |  |  |
|     | (a) 3268                                                                                                               | (b) 9504    |  |  |  |
|     | (c) 3168                                                                                                               | (d) 9904    |  |  |  |
|     | (e) None of these                                                                                                      |             |  |  |  |
| 37. | The floor of a room is 10 m 25 cm long and 8 m 75 cm broad. Find the least number of square tiles of the same size     |             |  |  |  |
|     | for covering the whole floor.                                                                                          |             |  |  |  |
|     | (a) 1235                                                                                                               | (b) 1435    |  |  |  |
|     | (c) 1870                                                                                                               | (d) 2470    |  |  |  |
|     |                                                                                                                        |             |  |  |  |

**38.** How many two-digit prime numbers are there, which on reversing their digits remain prime still?

- (a) 3 (b) 7
- (c) 11 (d) 9

(e) None of these

- **39.** Which of the following statements is not correct?
  - (a) All whole numbers are integers.
  - (b) Zero is not an integer, as it is neither positive nor negative.
  - (c) The successor of the integer 1 is not 0.
  - (d) The sum of an integer and its additive inverse is always zero,
  - (e) None of these
- **40.** The sum of successor and predecessor of -1 is \_\_\_\_\_
  - (a) 0 (b) -1
  - (c) -2 (d) 1

(e) None of these

| ANSWER - KEY   |                |                |                |                |  |  |
|----------------|----------------|----------------|----------------|----------------|--|--|
| <b>1.</b> (b)  | <b>2.</b> (c)  | <b>3.</b> (d)  | <b>4.</b> (c)  | <b>5.</b> (b)  |  |  |
| <b>6.</b> (b)  | <b>7.</b> (b)  | <b>8.</b> (a)  | <b>9.</b> (b)  | <b>10.</b> (b) |  |  |
| <b>11.</b> (c) | <b>12.</b> (b) | <b>13.</b> (c) | <b>14.</b> (c) | <b>15.</b> (b) |  |  |
| <b>16.</b> (b) | <b>17.</b> (a) | <b>18.</b> (c) | <b>19.</b> (d) | <b>20.</b> (c) |  |  |
| <b>21.</b> (c) | <b>22.</b> (c) | <b>23.</b> (b) | <b>24.</b> (c) | <b>25.</b> (d) |  |  |
| <b>26.</b> (b) | <b>27.</b> (b) | <b>28.</b> (c) | <b>29.</b> (a) | <b>30.</b> (b) |  |  |
| <b>31.</b> (a) | <b>32.</b> (c) | <b>33.</b> (a) | <b>34.</b> (a) | <b>35.</b> (c) |  |  |
| <b>36.</b> (b) | <b>37.</b> (b) | <b>38.</b> (d) | <b>39.</b> (b) | <b>40.</b> (c) |  |  |