



Math1089



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MATHEMATICS

Time allowed: 1 Hours 15 Minutes

Maximum Marks: 40

General Instructions:

Read the following instructions very carefully and strictly follow them:

- (i) This question paper comprises *two* parts – A and B.
 - (ii) There are **19** questions in the question paper. *All* questions are compulsory.
 - (iii) **Part – A**
 - 1. It consists two sections - I and II.
 - 2. Section I has **9** questions of **1** mark each. Internal choice is provided in **2** questions.
 - 3. Section II has **2** questions on case study. Each case study has **5** case-based sub-parts. An examinee is to attempt any **4** out of **5** sub-parts.
 - (iv) **Part – B**
 - 1. Question No **12** to **14** carry **2** marks each.
 - 2. Question No **15** to **18** carry **3** marks each
 - 3. Question No **19** is of **5** marks.
 - 4. Internal choice is provided in **1** question of **2** marks, **1** question of **3** marks and **1** question of **5** marks.
 - (v) Use of calculators is **not** permitted.
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PART - A

Section - I

Section I has 9 questions of 1 mark each. Internal choice is provided in 2 questions.

1. Find the LCM of 10 and 15. **1**

OR

- Find the HCF of 24 and 48.

2. Find the number of whole numbers between 38 and 68. 1
3. How many thousands make 3 crores? 1
4. Which one is bigger: LXXV or LXXIV? 1
5. Find the successor of the largest 3-digit number. 1
6. Write the smallest 4-digit number with different digits. 1
7. Write the identity element for multiplication of whole numbers. 1
8. Find the number of factors of 36. 1
- OR**
- Write first four multiples of 13.
9. Find the product of the place values of two 2's in 529729. 1

Section-II

Case study based questions are compulsory. Attempt any four sub parts of each question. Each subpart carries 1 mark.

**10. Case Study based – 1
Successor and Predecessor**

If we add 1 to a natural number, we get its successor. If we subtract 1 from a natural number, we get its predecessor.

- (i) Predecessor of the predecessor of 56 is 1
(A) 54 (B) 55 (C) 56 (D) 57 1
- (ii) Successor of the successor of 67 is 1
(A) 66 (B) 67 (C) 68 (D) 69 1
- (iii) Predecessor of the successor of 400 is 1
(A) 400 (B) 401 (C) 399 (D) 398 1
- (iv) Successor of the predecessor of 599 is 1
(A) 599 (B) 601 (C) 600 (D) 598 1
- (v) The product of successor and predecessor of 9 is
(A) 99 (B) 100 (C) 81 (D) None of these

**11. Case Study based – 2
Formation of numbers**

Let us form various four-digit numbers from the digits 2, 5, 6 and 9.

- (i) The smallest four-digit number formed from the given digits taking the digits only once, is 1
 (A) 2259 (B) 2569 (C) 2256 (D) 2265
- (ii) The largest four-digit number, using any one digit twice, from the given digits is 1
 (A) 9652 (B) 9562 (C) 9659 (D) 9965
- (iii) The largest number of four-digits formed from the given digits taking the digits only once, is 1
 (A) 9965 (B) 9562 (C) 9659 (D) 9652
- (iv) The smallest four-digit number, using any one digit twice, from the given digits is 1
 (A) 2259 (B) 2269 (C) 2256 (D) 2265
- (v) The difference between largest and smallest four-digit numbers using the given digits once is 1
 (A) 7083 (B) 7183 (C) 7285 (D) None of these

PART - B

All questions are compulsory. In case of internal choices, attempt any one.

12. Find all the factors of 68. 2
13. Express 44 as the sum of two odd primes. 2

OR

Using divisibility test, determine whether 726352 is divisible by 3 or not.

14. Find the prime factorisation of 980. 2
15. Find the product 8354×101 using distributive property. 3
16. Find the LCM of 20, 25 and 30. 3

OR

Write the greatest 4-digit number and express it in terms of its prime factors.

17. The distance between the school and a student's house is 1 km 975 m. Every day she walks both ways. Find the total distance covered by her in seven days. 3
18. Three tankers contain 403 litres, 434 litres and 465 litres of diesel respectively. Find the maximum capacity of a container that can measure the diesel of the three containers exact number of times. 3

19.

The number of sheets of paper available for making notebooks is 85,000. Each sheet makes 8 pages of a notebook. Each notebook contains 250 pages. How many notebooks can be made from the paper available? If each notebook contains 340 pages, how many notebooks can be made from the paper available?

5

OR

Find the value of $3845 \times 5 \times 782 + 769 \times 25 \times 218$. Is it different from 19225×1000 ?