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| |  |  | | --- | --- | | 1) | Everybody in a room shakes hands with everybody else. The total number of hand shakes is 66. The total number of persons in the room is \_\_\_\_\_\_ | |  | |  |  | | --- | --- | | a) | 11 | | b) | 12 | | c) | 13 | | d) | 14 |   . | |

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| |  |  | | --- | --- | | 2) | If S = (2, 3, 4, 5, 7, 9), then the number of different three – digit numbers (with all distinct digits) less than 400 that can be formed from S is \_\_\_\_\_\_\_ | |  | |  |  | | --- | --- | | a) | 20 | | b) | 40 | | c) | 80 | | d) | 120 |   . | |

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| |  |  | | --- | --- | | 3) | How many words of 4 consonants and 3 vowels can be made form 12 consonants and 4 vowels. If all the letters are different? | |  | |  |  | | --- | --- | | a) | 251820 | | b) | 258120 | | c) | 281520 | | d) | 285120 |   . | |

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| |  |  | | --- | --- | | 4) | The total number of permution of 4 letters that can be made out of the letters of the word 'EXAMINATION' is \_\_\_\_\_ | |  | |  |  | | --- | --- | | a) | 2454 | | b) | 2436 | | c) | 2545 | | d) | None of these |   . | |

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| |  |  | | --- | --- | | 5) | The total number of selections of fruit which can be made from 3 bananas, 4 apples and 2 oranges is \_\_\_\_\_ | |  | |  |  | | --- | --- | | a) | 39 | | b) | 315 | | c) | 512 | | d) | None of these |   . | |

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| |  |  | | --- | --- | | 6) | In how many different ways can the letters of the word 'PADDLED'be arranged? | |  | |  |  | | --- | --- | | a) | 910 | | b) | 2520 | | c) | 5040 | | d) | 840 |   . | |

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| |  |  | | --- | --- | | 7) | The chance of throwing a total of 3 or 5 or 11 with two dice is \_\_\_\_\_\_\_ | |  | |  |  | | --- | --- | | a) | 5/36 | | b) | 1/9 | | c) | 2/9 | | d) | 19/36 |   . | |

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| |  |  | | --- | --- | | 8) | In how many ways can the letters of the word 'Director' be arranged so that three vowels are never togeher? | |  | |  |  | | --- | --- | | a) | 1800 | | b) | 18000 | | c) | 16000 | | d) | 1600 |   . | |

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| |  |  | | --- | --- | | 9) | In how many different ways can the letters of the word 'LEADING' be arranged in such a way that the vowels always come together? | |  | |  |  | | --- | --- | | a) | 360 | | b) | 480 | | c) | 720 | | d) | 5040 | | e) | None of these |   . | |

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| |  |  | | --- | --- | | 10) | In how many different ways can the letters of the word 'CORPORATION' be arranged so that the vowels always come together? | |  | |  |  | | --- | --- | | a) | 810 | | b) | 1440 | | c) | 2880 | | d) | 50400 | | e) | 5760 |   . | |

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| |  |  | | --- | --- | | 11) | Out of 7 consonants and 4 vowels, how many words of 3 consonants and 2 vowels can be formed? | |  | |  |  | | --- | --- | | a) | 210 | | b) | 1050 | | c) | 25200 | | d) | 21400 | | e) | None of these |   . | |

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| |  |  | | --- | --- | | 12) | In a group of 6 boys and 4 girls, four children are to be selected. In how many different ways can they be selected such that at least one boy should be there? | |  | |  |  | | --- | --- | | a) | 159 | | b) | 194 | | c) | 205 | | d) | 209 | | e) | None of these |   . | |

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| |  |  | | --- | --- | | 13) | A box contains 2 white balls, 3 black balls and 4 red balls. In how many ways can 3 balls be drawn from the box, if at least one black ball is to be included in the draw? | |  | |  |  | | --- | --- | | a) | 32 | | b) | 48 | | c) | 64 | | d) | 96 | | e) | None of these |   . | |

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| |  |  | | --- | --- | | 14) | In how many different ways can the letters of the word 'DETAIL' be arranged in such a way that the vowels occupy only the odd positions? | |  | |  |  | | --- | --- | | a) | 32 | | b) | 48 | | c) | 36 | | d) | 60 | | e) | 120 |   . | |

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| |  |  | | --- | --- | | 15) | How many 4-letter words with or without meaning, can be formed out of the letters of the word, 'LOGARITHMS', if repetition of letters is not allowed? | |  | |  |  | | --- | --- | | a) | 40 | | b) | 400 | | c) | 5040 | | d) | 2520 |   . | |

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| |  |  | | --- | --- | | 16) | In how many different ways can the letters of the word "MACHINE" be arranged so that the vowels may occupy only the odd positions? | |  | |  |  | | --- | --- | | a) | 210 | | b) | 576 | | c) | 144 | | d) | 1728 | | e) | none of these |   . | |

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| |  |  | | --- | --- | | 17) | From a group of 7 men and 6 women , five persons are to be selected to form a committe so that 3 men are there on the committe. In how many ways can it be done? | |  | |  |  | | --- | --- | | a) | 564 | | b) | 645 | | c) | 735 | | d) | 756 | | e) | none of these |   . | |

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| |  |  | | --- | --- | | 18) | A box contains 20 materials, out of which 4 are damaged. Two materials are chosen at random. The probability that atleast one of them is damaged is: | |  | |  |  | | --- | --- | | a) | 4/19 | | b) | 7/19 | | c) | 12/19 | | d) | 21/29 | | e) | none of these |   . | |

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| |  |  | | --- | --- | | 19) | The number of different permutations of the word 'BANANA' is | |  | |  |  | | --- | --- | | a) | 270 | | b) | 60 | | c) | 120 | | d) | 360 |   . | |

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| |  |  | | --- | --- | | 20) | A library has two books each having three copies and three other books each having two copies. In how many ways can all these books be arranged in a shelf so that copies of the same book are not separated? | |  | |  |  | | --- | --- | | a) | 120 | | b) | 180 | | c) | 160 | | d) | 140 |   . | |