

## MAHCET MBA Daily Practice - 7

1. A room 9.03 m long and 6.88 m broad is to be paved with square tiles of the same lengths which are integral multiples of 1 cm. What is the minimum number of tiles required?  
A. 288  
B. 252  
C. 336  
D. 301  
E. 344
2. There are two positive numbers M and N. When M is divided by 195, the remainder is 92. When N is divided by 147, the quotient is the same, but the remainder is 96. Find the remainder when the sum of M and N is divided by 57.  
A. 4  
B. 17  
C. 24  
D. 35  
E. Cannot be determined
3. How many numbers between 3000 and 5000 have exactly 3 factors?  
A. 3  
B. 5  
C. 8  
D. 16  
E. 19
4. Find the sum of all whole numbers n such that n! ends in exactly 18 zeros?  
A. 360  
B. 365  
C. 375  
D. 385  
E. 400
5. Find the smallest number that leaves a remainder of 2 when divided by 5, 4 when divided by 7, and 6 when divided by 9.  
A. 249  
B. 277  
C. 267  
D. 252  
E. 312
6. Find the unit's digit of  $1^1 + 2^2 + 3^3 + \dots + 9^9$ .  
A. 1  
B. 3  
C. 5

D. 7

E. 9

7. Find the remainder when  $1! + 2! + 3! + \dots + 15!$  is divided by 30.

A. 0

B. 1

C. 3

D. 8

E. 29

8. How many factors does the number  $300^6$  have?

A. 864

B. 988

C. 1014

D. 1029

E. 1183

9. What is the remainder when the expression  $32^3 + 34^3 + 36^3$  is divided by 15.

A. 0

B. 1

C. 3

D. 5

E. 12

10. Find the sum of all possible values of  $p$  such that  $p^4 - p^3$  has the unit's digit as 2, where  $40 \leq p \leq 50$ .

A. 86

B. 93

C. 89

D. 96

E. 87

11. The sum of two positive numbers is 1968, and their HCF is 123. Find the number of pairs of numbers satisfying the given condition.

A. 16

B. 12

C. 8

D. 6

E. 4

12. If the number 12A345B is divisible by 9, what is the maximum value of  $A+B$ ?

A. 9

B. 10

C. 12

D. 15

E. 18

13. How many numbers greater than 32000 can be formed using the digits 1,2,3,4,5 such that each digit is used exactly once?

- A. 48
- B. 54
- C. 60
- D. 66
- E. 72

14. Find the number of permutations in arranging the letters of the word 'STATURE' such that vowels are always in odd places.

- A. 288
- B. 240
- C. 192
- D. 144
- E. 320

15. M is a four-digit integer that lies between 1999 and 4401. If M is formed by using the digits 0, 1, 2, 3, 4, 8, and 9 (repetition of digits is allowed), then the possible number of integers M will be:

- A. 820
- B. 790
- C. 759
- D. 901
- E. 883

16. Out of 40 students, 2 class representatives have to be chosen. If there are 527 ways in which one or more girls can be chosen, how many boys are there in the class?

- A. 17
- B. 23
- C. 20
- D. 21
- E. 19

17. In how many ways can 5 women and 3 men stand in a row such that no two men are together?

- A. 21600
- B. 10800
- C. 7200
- D. 5400
- E. 14400

18. There are 12 electronics shops next to each other in Chandni Chowk. An appraiser decides to make a surprise visit to three of the

shops. In how many ways can he visit such that no two of the shops he visits are next to each other?

- A. 120
- B. 165
- C. 220
- D. 252
- E. 286

19. In an Olympic event, 2 participants are from Australia, 3 from China, and 4 from Russia. Find the probability that exactly two of the medal winners are from the same country. There are three medals – Gold, Silver, and Bronze.

- A.  $13/21$
- B.  $55/84$
- C.  $2/3$
- D.  $4/7$
- E.  $25/42$

20. A box contains 12 cards numbered consecutively 1 to 12. If we take 5 cards in random without replacement from this box, what is the probability that the median of the numbers selected is 5?

- A.  $7/44$
- B.  $25/88$
- C.  $5/28$
- D.  $1/6$
- E.  $3/11$

21. The probability of success in an event is 40%. What is the probability of at least 1 success in 4 such events? (Rounded off to the nearest integer)

- A. 80%
- B. 82%
- C. 85%
- D. 87%
- E. 90%

22. A man is known to speak the truth 2 out of 3 times. He throws a die and reports that the number obtained is six. Find the probability that the number obtained is actually a six.

- A.  $3/8$
- B.  $2/7$
- C.  $2/9$
- D.  $1/4$
- E.  $3/10$

23. In how many distinct arrangements of the letters of the word TOMORROW are the three O's such that no two O's are adjacent?

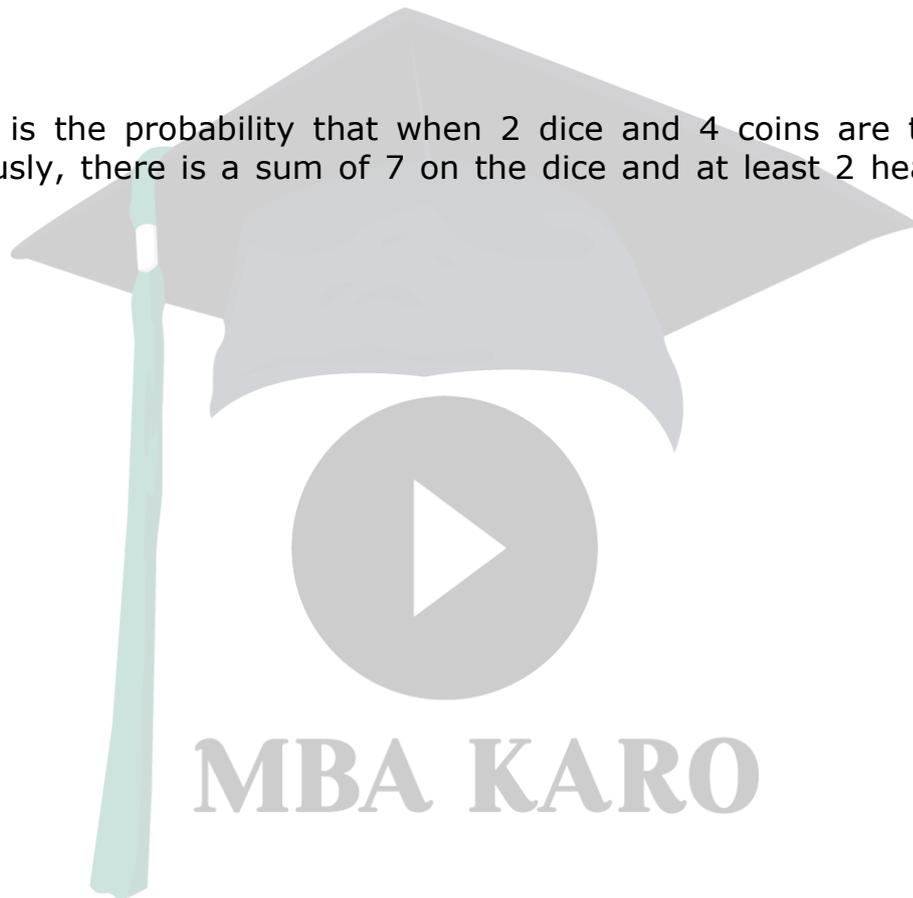
- A. 900
- B. 1080
- C. 1200
- D. 1260
- E. 1440

24. In how many ways can the letters of the word AMOUNT be arranged such that vowels are at the two ends?

- A. 96
- B. 108
- C. 120
- D. 144
- E. 180

25. What is the probability that when 2 dice and 4 coins are thrown simultaneously, there is a sum of 7 on the dice and at least 2 heads on the coins?

- A.  $11/96$
- B.  $13/96$
- C.  $5/64$
- D.  $7/64$
- E.  $17/192$



**Answers:**

1. C
2. B
3. A
4. D
5. E
6. D
7. C
8. E
9. C
10. B
11. E
12. C
13. D
14. A
15. E
16. B
17. E
18. A
19. B
20. A
21. D
22. B
23. C
24. D
25. A

