Practice Exercise

1. A man has 2 jackets, 5 shirts and 6 pairs of slacks. If an outfit consists of a jacket, shirt and a pair of slacks, how many different outfits can the man wear?
   a. 126
   b. 60
   c. 50
   d. None of these

2. A department contains 17 male employees and 15 female employees. In how many ways can a male and a female employee be chosen to represent the department?
   a. 275
   b. 32
   c. 255
   d. None of these

3. Find the total number of ways in which 4 persons can be seated in 6 seats.
   a. 24
   b. 720
   c. 360
   d. 180

4. How many 4 - digit numbers can be made by using digits 1 to 7 (repetition is not allowed), if the digit 4 will always be there in the number?
   a. 120
   b. 240
   c. 480
   d. 840

5. How many different 3 - letter words can be made by 5 vowels with repetition, if vowel 'A' is never included?
   a. 24
   b. 60
   c. 6
   d. 64

6. In how many ways can a bracelet of 10 different beads be made?

a. 9!/2!

b. 10!

c. 8!/2

d. 10!/2!

7. In a class of 25 students, find the total number of ways to select two representatives, if a particular person is never selected.

a. 256

b. 276

c. 225

d. 290

8. Find the total number of combinations of 5 letters A, B, A, B, B taking some or all at time.

a. 10

b. 12

c. 11

d. 9

9. Out of 6 consonants and 5 vowels, how many words of 3 consonants and 2 vowels can be formed?

a. 200

b. 24000

c. 120

d. 2400

10. Eighteen guests have to be seated, half on each side of a long table. Four particular guests desire to sit on one particular side and three others on the other side. Determine the number of ways in which the seating arrangement can be made.

a. $^{11}C_5 \times 9! \times 9!$

b. $^{10}C_5 \times 9! \times 8!$

c. $^{10}C_5 \times 9! \times 9!$

d. $^{11}C_5 \times 9! \times 8!$

11. If four dice are thrown, what is the probability that the sum of the numbers thrown up will be 19?

a. 7/162

b. 56/162

c. 7/1296

d. None of these

12. If a number is randomly selected from the first 200 natural numbers, what is the probability

that it is divisible by 5 or by 8?

a. 3/10

b. 13/40

c. 7/20

d. None of these

13. A coin is tossed 3 times. Find the probability of getting at least one head.

a. 3/4

b. 5/8

c. 6/7

d. 7/8

14. What is the chance that a leap year selected at random contains 53 Fridays?

a. 2/5

b. 3/7

c. 2/7

d. 3/5

15. A single card is selected from a deck of 52 bridge cards. What is the probability that

I. It is not a heart?

II. It is an ace or a spade?

a. 39/52, 9/13

b. 3/4, 4/13

c. 39/52, 4/9

d. 3/4, 4/9

16. The letters of the word ENTRANCE are arranged in all possible ways. The number of arrangements having the E's together and N's together is

a. 7!

b. 6!

c. 8!

d. 2 x 6!

17. How many numbers lying between 3000 and 4000 and which are divisible by 5 can be made with the digits 3, 4, 5, 6, 7 and 8, without repetition?

a. 6

b. 12

c. 13

d. 15

18. The total number of ways of answering all 5 objective - type questions, each question having 4 choices is

a. 625

b. 512

c. 3025

d. 1024

19. The number of ways of distributing 10 different books among 4 students (S1, S2, S3, S4) such that S1 and S2 get 2 books each and S3 and S4 get 3 books each is

a. 12600

b. 10!/(4! x 6!)

c. $^{10}C_4$

d. 10!/(2! x 2! x 3! x 3!)

20. Each of two friends has 20 stamps and 10 postcards. We call an exchange 'fair' if they exchange a stamp for a stamp or a postcard for a postcard. How many ways are there to carry out one fair exchange between these two friends?

a. 200

b. 400

c. 600

d. 500

21. 4 men and 3 women are to be seated in a row such that the women occupy the even places. How many such arrangements are possible?

a. 7!

b. 144

c. 30

d. 6!

22. What is the sum of all the 4 - digit numbers that can be formed using all of the digits 2, 3, 5 and 7?

a. 113322

b. 11322

c. 11332

d. 113332

23. How many diagonals does a decagon have?

a. 45

b. 35

c. 90

d. 70

24. There are 21 students studying in a class. If every student studying in the class gives a greeting card to every other student in the class, then how many greeting cards will be exchanged?

a. 420

b. 220

c. 210

d. 462

25. How many squares does a chess board have?

a. 64

b. 204

c. 1296

d. None of these

26. A multiple - choice question paper has 8 questions with 4 options per question. In how many ways can one or more of those questions be attempted?

a. 4^8

b. 5^8

c. $4^8 - 1$

d. $5^8 - 1$

27. In how many ways can one or more of 6 similar Perk chocolates and 5 similar Kitkat chocolates be given away?

a. 41

b. 10

c. $2^{11} - 1$

d. 29

28. The probability that A will be alive for 30 years is 60% and the probability that his friend B will be alive for 30 years is 40%. What is the probability that exactly one of them will be alive after 30 years?

a. 50%

b. 62%

c. 24%

d. 52%

29. A man plays a game of cards in a casino. The man has to pay Rs.10 for drawing a card from a well shuffled pack of cards. If a numbered card turns up, the man doubles his money else he

forfeits it. In the long run, what is his expected gain or loss per card drawn?

a. Rs. 3.85 gain

b. No gain or loss

c. Rs. 3.80 loss

d. Rs. 50 gain

30. There are 2 boxes. One has 5 green and 6 yellow balls, while the other has 4 green and 8 yellow balls. You randomly select a ball from any box. What is probability that a green ball is selected?

a. 13/33

b. 9/23

c. 14/23

d. None of these

Answer key for Practice Questions									
1 b	2 c	3 c	4 c	5 d	6 a	7 b	8 c	9 b	10 a
11 a	12 a	13 d	14 c	15 b	16 b	17 b	18 d	19 d	20 d
21 b	22 a	23 b	24 a	25 b	26 d	27 a	28 d	29 a	30 a