1. In how many different ways can letters of the word 'PRAISE' be arranged?
(a) 720　　　　　　(b) 610
(c) 360　　　　　　(d) 210
(e) None of these

2. In how many ways can letters of the word 'DELHI' be arranged, so that vowels are always together?
(a) 24　　　　(b) 60
(c) 48　　　　(d) 120

3. In how many different ways can letters of the word 'THERAPY' be arranged, so that the vowels never come together?
(a) 720　　　　(b) 1440
(c) 5040　　　　(d) 3600
(e) 4800

4. How many words of 3-3 letters can be made from the word PENCIL?
(a) 240　　　　(b) 120
(c) 60　　　　(d) 180

5. In how many ways, the letters of word 'SENSITIVE, can be arranged?
(a) 45360　　　　(b) 45380
(c) 44920　　　　(d) 44340

6. In how many different ways can the letters of the word ELEPHANT be arranged so that vowels always come together?
(a) 2060　　　　(b) 2160
(c) 2260　　　　(d) 2360

7. How many 5 digit numbers can be formed from the digits 2, 3, 4, 5, 9 assuming no digit is repeated?
(a) 120　　　　(b) 125
(c) 130　　　　(d) 135

8. How many 4 digit numbers can be formed by using digits 2, 3, 4 and 5 if repetition of digits is allowed?
(a) 64　　　　(b) 256
(c) 24　　　　(d) 120
(e) None of these

9. In how many ways 3 gifts can be distributed to 8 boys if any boy can have any number of gifts?
(a) 512　　　　(b) 510
(c) 514　　　　(d) 508

10. A company puts a code on each product they sell. The code is made up of 4 numbers and 1 letter. How many different codes are possible?
(a) 2000　　　　(b) 26000
(c) 260000　　　　(d) 270

11. In a hostel, 10 rooms are vacant. In how many ways can 8 students be assigned these rooms?

(a) 10!   (b) $\frac{10!}{2!}$

(c) $\frac{10!}{8!}$ (d) 8!

12. In how many different ways 6 people can sit around a circular table?

(a) 5040   (b) 24

(c) 720   (d) 120

13. Find the number of ways in which 6 different beads can be arranged to form a necklace.

(a) 60   (b) 120

(c) 180   (d) 200

14. At the end of a business conference the ten people present all shake hands with each other once. How many handshakes will there be all together?

(a) 20   (b) 45

(c) 55   (d) 90

15. In how many ways among 4 teachers and 10 students, 2 teachers can be chosen?

(a) 182   (b) 91

(c) 273   (d) 145

16. In how many ways, a committee of 3 members can be formed from 5 men and 3 women if in that committee, there will be 2 men and 1 woman?

(a) 30   (b) 40

(c) 70   (d) 50

17. There are 9 non-concurrent and non-parallel lines, then possible points of intersection of these lines are

(a) 40   (b) 36

(c) 45   (d) 50

18. The total number of triangles that can be formed from 12 points out of which 4 points are collinear

(a) 220   (b) 224

(c) 216   (d) 210

19. In how many ways, a group of 7 members can be formed from 6 boys and 4 girls if either 4 boys and 3 girls or 5 boys and 2 girls are to be chosen?

(a) 36   (b) 60

(c) 96   (d) 72