TEST - I

Directions for questions of 1 to 5: Answer these questions on the basis of the information given below.

The following table gives data about the scores of students in five subjects in class X of a school. Each test was written by all the 45 students in the class.

Subject	90% or more	80% or more	70% or more	60% or more	40% or more
Maths	7	13	21	32	41
Physics	11	16	23	29	40
Biology	8	15	31	38	44
English	3	7	18	26	35
Chemistry	5	12	19	29	38

Note: The maximum marks in each subject is 100.

1. How many students scored 70% or more but less than 90% in Biology?
(A) 29 (B) 27 (C) 23 (D) 25

2. At least how many students scored 60% or more in all the five subjects?
(A) 0 (B) 3
(C) 5 (D) 7

3. At most how many students scored 70% or more in all the five subjects?
(A) 16 (B) 18
(C) 19 (D) 21

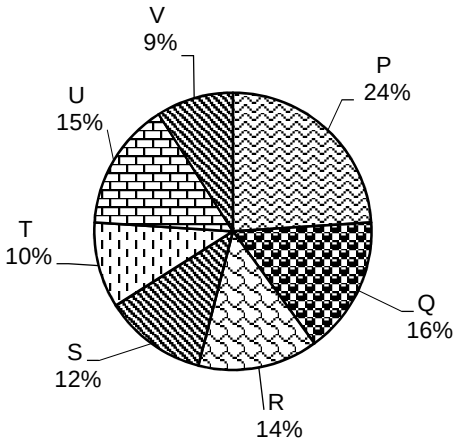
4. If 40% is the pass mark in each subject, what is the maximum number of students in the class who could have failed in two or more subjects?
(A) 10 (B) 11
(C) 13 (D) 15

5. How many students scored less than 70 marks in English but did not fail in the subject?
(A) 19
(B) 17
(C) 18
(D) Cannot be determined

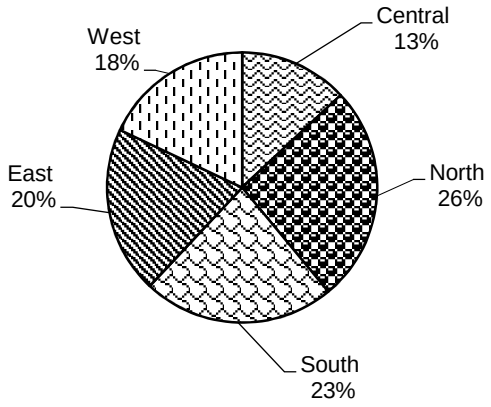
Directions for questions 6 to 10: Answer these questions on the basis of the information given below.

The following pie charts give the percentage-wise breakup of the sales of all the six products of a company and the region-wise breakup of its sales.

Breakup (by Product)



Breakup (by Region)



6. At least how many products were sold in more than one region?
(A) 0 (B) 1
(C) 2 (D) 3

7. What is the minimum number of regions in which more than one product was sold?
(A) 1 (B) 2
(C) 3 (D) 4

8. If product Q comprised at least 15% of the sales in each region, what can be the highest percentage share of product Q in the sales in any region?
(A) 22.7
(B) 24.1
(C) 25.2
(D) 26.9

9. If products P and Q were sold only in the same two regions, what can be the highest percentage share of product V in the sales in any region?
(A) 65.1
(B) 66.7
(C) 69.2
(D) 71.6

10. For any product, any region in which it is sold accounts for at least 25% of the total sales of that product. What is the maximum number of regions in which at least five products are sold?
(A) 2
(B) 3
(C) 1
(D) 4

Directions for questions of 11 to 15: Answer these questions on the basis of the information given below.

There are five brands of LCD televisions called Aka, Bika, Cika, Doka and Eka in a country. Details about their market share, unit selling price and profitability (defined as the profit expressed as a percentage of the revenue) for the year 2017, are given in the table below.

Brand	Market share (%)	Unit Selling Price (₹)	Profitability (%)
Aka	36	30,000	20
Bika	21	40,000	30
Cika	12	50,000	40
Doka	18	40,000	30
Eka	13	60,000	20

In 2018, the sales values of LCD televisions grew by 50% as compared to those in 2017. Cika offered a 40% discount on its unit selling price in 2018, which resulted in a 20% increase in its market share. Each of the other four brands lost 5% market share. However the profitability of Cika came down to 15% in 2018. The unit selling prices of the other four brands and their profitability values remained the same in 2018 as they were in 2017.

11. Which brand had the highest revenue in 2017?
(A) Aka (B) Bika (C) Doka (D) Eka

12. Which brand had the highest profit in 2017?
(A) Aka (B) Bika (C) Doka (D) Eka

13. Which brand had the highest profit in 2018?
(A) Aka (B) Bika (C) Doka (D) Eka

14. For how many companies did the profit go up from 2017 to 2018?
(A) 5 (B) 4 (C) 3 (D) 2

15. What was the percentage increase in the total profit of all the five brands from 2017 to 2018?
(A) 5.7 (B) 6.8 (C) 7.5 (D) 9.9

Directions for questions of 16 to 20: Answer these questions on the basis of the information given below.

25 players took part in a rapid chess tournament, played on a double round-robin basis, i.e., each player plays two matches with every other player. Three points are awarded for a win, one point for a draw and zero points for a loss. The player with the highest number of points at the end of all the matches is the winner of the tournament. The tournament happens in several rounds, with each round comprising exactly twelve matches, involving 24 of the 25 players, while one player sits out. The tournament is scheduled in such a way that a player does not have to play more than five games on any day and the tournament gets over in the minimum possible number of days.

Directions for questions 16 to 20: Type in your answer in the input box provided below the question.

16. What is the number of days, in which the tournament gets over?

17. What is the total number of matches in the tournament?

18. At most how many points did the winner score?

19. If players are ranked according to the points they scored, what can be the maximum points scored by the players ranked from 1 to 5?

20. At most how many players could have won more games than they lost?

Key

1. C	5. D	9. C	13. B	17. 600
2. A	6. B	10. B	14. C	18. 144
3. B	7. C	11. A	15. C	19. 660
4. C	8. A	12. B	16. 10	20. 24