

Prime CAT 04 2022 DILR

Directions for questions 1 to 6: Answer the questions on the basis of the information given below.

As listed in the table below, 8 teams participated in the GK Quiz on International Yoga Day consisting of 8 rounds. There were 5 participating teams in each round. Teams A to E participated in Round 1, Teams B to F in Round 2, ... , Teams D to H in Round 4, Teams E to H and A in Round 5, Teams F to H, A and B in Round 6 and so on.

The top three performing teams in each round were awarded 5, 3 and 2 points respectively. There was no tie in any of the 8 rounds. The table below shows the total points scored by 8 teams after Round 5 and Round 8.

Team	Scores after round 5	Scores after round 8
A	7	15
B	4	7
C	2	6
D	6	11
E	3	3
F	8	8
G	13	16
H	7	14

The following information is also known.

- (i) Team F did not score consecutively in any two rounds from Rounds 1 to 5.
- (ii) Both teams D and F scored in a round from Rounds 1 to 5.
- (iii) No team scored in all the three rounds from Rounds 6 to 8.
- (iv) Only two teams scored in two consecutive rounds from Rounds 6 to 8.

Q 1. What was the sum of the scores of teams D, E and F after Round 4?

Q 2. Which of the following teams were in the last four positions after Round 3?

- 1) B, C, D, H
- 2) C, D, E, G
- 3) B, C, E, H
- 4) A, C, E, F

Q 3. Which of the following statements is/are definitely correct?

- I. Team B scored in Rounds 1, 2 & 7.
- II. Team E scored in Round 3.

- 1) I only

- 2) II only
 - 3) Both I & II
 - 4) Neither I nor II
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Q 4. How many teams did not score 3 points in any of the 8 rounds?

Q 5. If the team that scored in maximum number of rounds could win the Quiz, then which of the following teams definitely did not win the Quiz?

- 1) A
 - 2) F
 - 3) G
 - 4) H
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Q 6. Which of the following teams did not score in Round 8?

- 1) A
 - 2) C
 - 3) D
 - 4) H
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Directions for questions 7 to 10: Answer the questions on the basis of the information given below.

An artist will paint 15 tiles on the floor in the colors - green, red, and/or purple. The tiles are arranged in three symmetrical columns as shown in the following diagram:

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15

The artist tells you that she will paint each tile a certain color according to the following conditions:

- (i) The corner tiles are painted red.
- (ii) Tile 7 is painted red.
- (iii) Every tile that borders atleast two red tiles must be a green tile. A tile borders another tile if they have an edge in common.
- (iv) Every green tile must border a purple tile.

Q 7. If tile 9 is red in colour, then how many purple tiles are there?

Q 8. Which colour has the most possible tiles?

- 1) Green
 - 2) Purple
 - 3) Red
 - 4) Either Green or Red
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Q 9. How many different possible combinations of coloured tiles can be there, if there are exactly 6 red tiles?

- 1) 21
 - 2) 22
 - 3) 23
 - 4) 28
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Q 10. If a purple tile borders exactly one green tile, then it must border a red tile too. If there are exactly four purple-coloured tiles, then which of the following statements is DEFINITELY false?

- 1) There is exactly one even colored red tile.
 - 2) If tile 6 is purple, tile 9 is Green.
 - 3) If tile 12 is purple, tile 8 is Red.
 - 4) Sum of all purple-colored tiles is always either 36 or 33.
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Directions for questions 11 to 16: Answer the questions on the basis of the information given below.

At an Indian wedding the guests were served two full meals - lunch and dinner - on the same day. Each meal had 3 courses - starter, main course and dessert. There were six caterers - A, B, C, D, E and F - who were appointed for the preparation of these meals. In each of the three courses the dinner menu had more dishes than the lunch menu. Also the main course did not have a lesser number of dishes than the starter or dessert menu. Considering lunch and dinner together each caterer prepared and served exactly four dishes. Each caterer served at least one dish during each meal. The guests were served one dish at a time in order. The starters preceded the main course, which preceded the desserts. The number of dishes in the starters menu and the main course during dinner was exactly one more than those in the lunch menu. Dinner had more desserts than starters. There were at least 3 starters and 3 desserts in each meal. Dinner had four more dishes than lunch. None of the caterers served more than one dish in any course. Each caterer prepared at least one starter and one dessert on the wedding day. The time taken for preparation of each dish in the starter, main course and dessert menus during lunch was 1 hour, 2 hours and 1.5 hours respectively whereas during dinner the preparation time was 30 minutes more for each dish in the respective courses. Any caterer does not prepare more than one dish at a time.

Further, it is also known that:

- (i) B served the 1st and last dishes on the lunch menu as well as the dinner menu.
- (ii) A served the 3rd and 4th dishes on the lunch menu and the 9th and 10th dishes on the dinner menu. C served two dishes during

dinner, one immediately before and the other immediately after A.

(iii) F served the 7th and 8th dishes on the lunch menu and the 4th and 5th dishes in the dinner menu.

(iv) E's dish always follows D's dish in any course.

Q 11. The second dessert in the lunch menu was prepared by

- 1) A
 - 2) F
 - 3) C
 - 4) E
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Q 12. Which of the following statements is incorrect based on the given information?

- 1) A and F spend the same amount of time in food preparation.
 - 2) B spends more time than C in food preparation.
 - 3) D and E spend 8 hours each in food preparation.
 - 4) E spends more time than A in food preparation.
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Q 13. Who did not prepare dessert for the dinner menu?

- 1) F
 - 2) A
 - 3) B
 - 4) D
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Q 14. How many times during both the meals did caterers E and F serve dishes consecutively, one after the other?

- 1) One
 - 2) Three
 - 3) Zero
 - 4) Two
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Q 15. Which of the following dishes was prepared by D?

- 1) 9th dish for lunch
 - 2) 6th dish for dinner
 - 3) 3rd dish for dinner
 - 4) 13th dish for dinner
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Q 16. The total time spent by C for preparing dishes for dinner is what percent more than the total time spent by C for preparing dishes for lunch?

Directions for questions 17 to 20: Answer the questions on the basis of the information given below.

The five Hand Sanitizer manufacturing companies - Godrej, Himalaya, Khadi, Pee Safe and Resil - had a total market share of 50% in a country in 2020. The details regarding their market share distribution, selling price per liter and profitability (defined as the profit as a percentage of the revenue) for the year 2020 are given in the table below.

Company	Market Share distribution (%)	Selling Price (Rs.)/Liter	Profitability (%)
Godrej	30	320	20
Himalaya	15	400	15
Khadi	20	460	25
Pee Safe	15	260	10
Resil	20	420	15

In 2021, the sales volume of hand sanitizers increased by 20% compared to 2020. The total market share (%) of these 5 companies remained the same in 2021 as in 2020. All companies offered 25% discount on its selling price in 2021, resulting in an increase of 5 percentage points each in the market share of Himalaya, Khadi and Pee Safe. Godrej and Resil lost 10 and 5 percentage points market share respectively. However, in 2021 the profitability (%) of Godrej, Himalaya and Khadi declined by $\frac{1}{4}$, $\frac{1}{3}$ and $\frac{1}{5}$ respectively of the 2020 values. The profitability (%) of the other two companies remained the same in 2021 as it was in 2020.

Q 17. Which of the following companies had the third highest revenue in 2020?

- 1) Godrej
- 2) Himalaya
- 3) Khadi
- 4) Resil

Q 18. Which of the following companies had the second lowest profit in 2020?

- 1) Godrej
- 2) Pee Safe
- 3) Himalaya
- 4) Resil

Q 19. The complete list of companies whose revenue grew from 2020 to 2021 was _____.

- 1) Himalaya, Khadi, Pee Safe
 - 2) Godrej, Himalaya, Pee Safe
 - 3) Khadi, Pee Safe, Resil
 - 4) Himalaya, Khadi
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Q 20. The profit of how many companies did not increase from 2020 to 2021?
