

## CDC 13 2022 DILR

**Directions for questions 1 to 4:** Answer the questions on the basis of the information given below.

At the Sardar Patel Stadium, all of 800 athletes have to choose atleast one sport from four different sports - Badminton, Football, Hockey and Volleyball. An athlete who plays Badminton, or Football, or Volleyball does not play Hockey.

The following facts are known about the athletes:

- (i) The number of athletes playing Football, Badminton and Volleyball are in the ratio 1 : 2 : 1 respectively.
- (ii) The number of athletes playing Hockey is same as the number of athletes playing both Football and Volleyball but not Badminton.
- (iii) The number of athletes playing all the three sports Badminton, Football and Volleyball is 60.
- (iv) The number of athletes playing only Football is same as the number of athletes playing only Volleyball. This number is 40% of the number of athletes playing only Badminton.

**Q 1.** What is the minimum number of athletes who play only Badminton?

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**Q 2.** What is the minimum number of athletes who play Football?

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**Q 3.** If out of 800 athletes at least 6 athletes play Hockey, then which of the following statements is/are definitely true?

- I. The maximum number of athletes who can play volleyball is 240.
- II. The maximum number of athletes playing only Badminton and Volleyball is 40.
- III. The maximum number of athletes who can play only Volleyball is 156.

- 1) I only
  - 2) II only
  - 3) II & III only
  - 4) I & II only
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**Q 4.** Which of the following cannot be the total number of athletes who play exactly one sport?

- 1) 540
  - 2) 654
  - 3) 694
  - 4) 730
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**Directions for questions 5 to 10:** Answer the questions on the basis of the information given below.

There are 14 participants at an International Weightlifting Competition in the 73 kg category. There are two rounds - Round 1 and Round

2. In Round 1 the participants are divided into two groups - A and B - of 7 each and those who qualify move on to Round 2. In both the rounds, the participants are required to lift weights in the Snatch and Clean & Jerk categories. In case the lift is not according to the rules laid out, the participant is disqualified. The participants are from 14 different countries. The participants from India, Pakistan, Russia, Canada, Nepal, Sri-Lanka and Brazil are in Group A whereas those from Germany, Iran, Iraq, Bhutan, Japan, China and Spain are in Group B. The table given below shows the weights lifted in the Snatch category by all the 14 participants in Round 1. Seven of them were disqualified in the Clean & Jerk category.

Group A		Group B	
Participant	Snatch	Participant	Snatch
P1	135 kg	P8	130 kg
P2	145 kg	P9	125 kg
P3	136 kg	P10	140 kg
P4	120 kg	P11	140 kg
P5	125 kg	P12	134 kg
P6	140 kg	P13	130 kg
P7	135 kg	P14	120 kg

Further, it is also known that:

- (i) In Group A, those from Pakistan, Russia and Brazil were disqualified. One of them lifted the maximum weight in the Snatch category whereas the other two lifted less than 130 kg. In Group B, P13, P14 and those from Iran and Iraq were disqualified.
- (ii) Among the qualifiers, P6, who lifted a total of 315 kg was from Nepal while the participant from Canada lifted 171 kg in Clean & Jerk and his total was 307 kg. P7 lifted a total of 300 kg which was 5 kg less than the participant from India, whose Snatch weight was the same as P7.
- (iii) P8, who was from Spain, qualified for Round 2 with a total lift of 285 kg. P11, from Bhutan, lifted the same weight in the Clean & Jerk category as the participant from India. The participant from Japan lifted 168 kg in Clean & Jerk and his total was 3 kg less than P1.
- (iv) In Round 2, the 7 participants were ranked from 1 to 7 where 1st rank got Gold medal, 2nd rank got Silver medal and 3rd rank was Bronze medal. The total weights lifted in Round 2 by the top four participants were 319 kg, 317 kg, 313 kg and 308 kg.
- (v) The one who lifted the maximum weight in Round 1 became the runner up and the participant who increased the weights he lifted by 5 kg and 4 kg in the two categories won the Gold medal.
- (vi) The participant who increased the weights he lifted by 13 kg in Round 2 compared to the total lift in Round 1 won the Bronze. The participant who lifted 10 kg more in Round 2 than in Round 1 was ranked last.
- (vii) The participants from India and Canada lifted lesser weights in Round 2 than in Round 1. There was no tie in Round 2.

**Q 5.** Which of the following represents the top three qualifiers in Round 1?

- 1) P1, P7, P6
- 2) P6, P7, P3
- 3) P11, P7, P6
- 4) P6, P11, P3

**Q 6.** Which of the following is not a weight (in kg) lifted by any of the qualifiers in either Snatch or Clean & Jerk categories of Round 1?

- 1) 135
- 2) 155
- 3) 145
- 4) 165

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**Q 7.** Which 4th ranked participant in Round 2 belonged to

- 1) Canada
  - 2) Sri-Lanka
  - 3) Japan
  - 4) Nepal
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**Q 8.** Which of these can be the weights (in kg) lifted by the participant from Canada in the Snatch and Clean & Jerk categories of Round 2?

- 1) 135, 172
  - 2) 130, 165
  - 3) 135, 155
  - 4) 140, 163
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**Q 9.** If in Round 2, P1 lifted the same weight in the Snatch category as he did in Round 1, then which of the following could represent the range of weights (in kg) that could have been lifted by him in the Clean & Jerk category of Round 2? (Weights have integral values.)

- 1) 161 to 169
  - 2) 165 to 170
  - 3) 155 to 170
  - 4) 160 to 169
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**Q 10.** What was Spain's rank in Round 2?

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**Directions for questions 11 to 14:** Answer the questions on the basis of the information given below.

The table given below shows data about Chips and Electric Vehicle Batteries (EVBs) manufactured by ABC Company Limited in 8 months from January to August. Some of the Chips and EVBs manufactured in a particular month were consumed domestically and the remaining was exported in the same month. The 2nd column of the table provides the total number of Chips and EVBs manufactured by the company in each of the given 8 months. Similarly, the 3rd column shows the number of Chips consumed domestically; and the 4th column shows number of EVBs exported as a percentage of number of EBVs consumed domestically.

	Total Chips and EVBs Manufactured	Domestic Consumption of Chips	No. of EVBs exported as a % of No. of EVBs Consumed Domestically
January	360	50	12.5%
February	420	60	25%
March	400	100	20%
April	500	125	40%
May	450	80	50%
June	400	150	40%
July	600	250	10%
August	800	300	25%

**Q 11.** If the number of EVBs manufactured in January, March, and August each are equal to N, then how many values of N are possible?

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**Q 12.** The ratio of number of EVBs exported to that of number of Chips exported in July cannot be

- 1) 1 : 3
- 2) 4 : 5
- 3) 3 : 2
- 4) 2 : 3

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**Q 13.** For how many of the given 8 months, the number of Chips exported cannot be zero?

- 1) 2
- 2) 3
- 3) 4
- 4) More than 4

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**Q 14.** If the number of EVBs consumed domestically is same in each of the given eight months, then what is the minimum number of Chips exported in April?

- 1) 39
- 2) 95
- 3) 151
- 4) 207

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**Directions for questions 15 to 20:** Answer the questions on the basis of the information given below.

Five production houses - P, Q, R, S and T - that produced five prime-time shows have participated at the Sitara TV awards. Each production house produced only one show. The names of the prime-time shows that entered the competition for the awards were Aarohi, Barrister, Chandragupta, Deewane and Ehsaas, not necessarily in the same order. Each show won an award under one of the following categories - Best Actor Male, Best Actor Female, Best Director, Best Screenplay and Best Cinematography. Only one show won the award under each category. Also, each show received an overall ranking from 1 (best) to 5 (worst) for the Best Show category and there were no ties.

Further, it is also known that:

- (i) The overall ranking for the winner of the Best Screenplay award was immediately above the show produced by Q productions, which was not Chandragupta.
- (ii) Deewane was ranked immediately above Q's show, which was not the winner under Best Actor Male category.
- (iii) Barrister was ranked immediately above the winner of the Best Cinematography award and immediately below the show produced by R production house.
- (iv) The overall rank of Ehsaas immediately above the winner of the Best Actor Male category and immediately below the winner of the Best Screenplay award.
- (v) Aarohi was ranked immediately below the show that won under the Best Actor Female category and immediately above the show produced by S production house, which was not Chandragupta.
- (vi) The winner under the Best Actor Male category was neither Barrister nor was it produced by T production house.

**Q 15.** S production house won the award under which category?

- 1) Best Screenplay
- 2) Best Cinematography
- 3) Best Actor Male
- 4) Best Director

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**Q 16.** Which of the following shows was the winner of the Best Show Category?

- 1) Aarohi
- 2) Deewane
- 3) Chandragupta
- 4) Barrister

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**Q 17.** Which production house among the following got the award under Best Actor Male category?

- 1) P
- 2) Q
- 3) R
- 4) T

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- (iii) Barrister was ranked immediately above the winner of the Best Cinematography award and immediately below the show produced by R production house.
- (iv) The overall rank of Ehsaas immediately above the winner of the Best Actor Male category and immediately below the winner of the Best Screenplay award.
- (v) Aaroohi was ranked immediately below the show that won under the Best Actor Female category and immediately above the show produced by S production house, which was not Chandragupta.
- (vi) The winner under the Best Actor Male category was neither Barrister nor was it produced by T production house.

**Q 18.** Which of the following shows was produced by T production house?

- 1) Chandragupta
- 2) Ehsaas
- 3) Deewane
- 4) Either (1) or (3)

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- (vi) The winner under the Best Actor Male category was neither Barrister nor was it produced by T production house.

**Q 19.** What was the rank under Best Show category for the show that won the Best Director award?

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**Q 20.** Which of the following combinations of Show and Award is correctly matched?

I. Aarohi - Best Screenplay

II. Deewane - Best Actor Female

III. Ehsaas - Best Actor Male

IV. Barrister - Best Director

V. Chandragupta - Best Cinematography

1) II & III only

2) II & V only

3) IV & V only

4) I & II only

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