

## Prime CAT 11 2022 DILR

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

In a One Day International (ODI) Cricket Match between India and Australia, the top 5 run scorers in the match are Dhoni, Rohit, Virat, Maxwell and Warner. The number of sixes hit by each in their innings is a distinct number from among 11, 9, 7, 6 and 4. Each of the 5 players uses a bat of a different manufacture from among GM, SS, SG, BDM and MRF. The distance of the largest six hit by each is a distinct integral multiple of meters from among 91, 93, 97, 103 and 110. No other player hit any six in the match. Following is the additional information:

- (i) The player who hit the longest six of the match is also the one who hit the highest number of sixes in the match. Further, the player who hit the least number of sixes among them is not the one who hit the 91 meters long six.
- (ii) The number of sixes hit by each of the 2 players Dhoni and the player who uses the SS bat is a multiple of 3.
- (iii) The longest six hit by each of the 2 players Dhoni and the player who uses the BDM bat is a prime number multiple of meters.
- (iv) There are exactly two players for each of which neither the number of sixes hit nor the distance (in meters) of the longest six is a prime number.
- (v) There are exactly two players for which the sum of the number of sixes hit and the numerical value of the distance (in meters) of the longest six is a prime number and these 2 prime numbers are distinct.
- (vi) The number of sixes hit by Virat, who uses the SG bat, is less than that by Dhoni. While Rohit uses the GM bat and Warner does not use BDM bat.

**Q 1.** The number of sixes hit by Dhoni is \_\_\_\_\_.

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**Q 2.** Which player hit the highest number of sixes?

- 1) Dhoni
- 2) Warner
- 3) Rohit
- 4) Maxwell

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**Q 3.** What is the distance (in meters) of the longest six hit by Warner?

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**Q 4.** For which of the following players the sum of the number of sixes hit and the numerical value of the distance (in meters) of the longest six is a prime number?

- 1) Dhoni
- 2) Warner
- 3) Both Virat & Rohit
- 4) Maxwell

**Q 5.** If the number of fours hit by each player is twice the number of sixes hit by him, which of the following player definitely scored a century i.e., at least 100 runs?

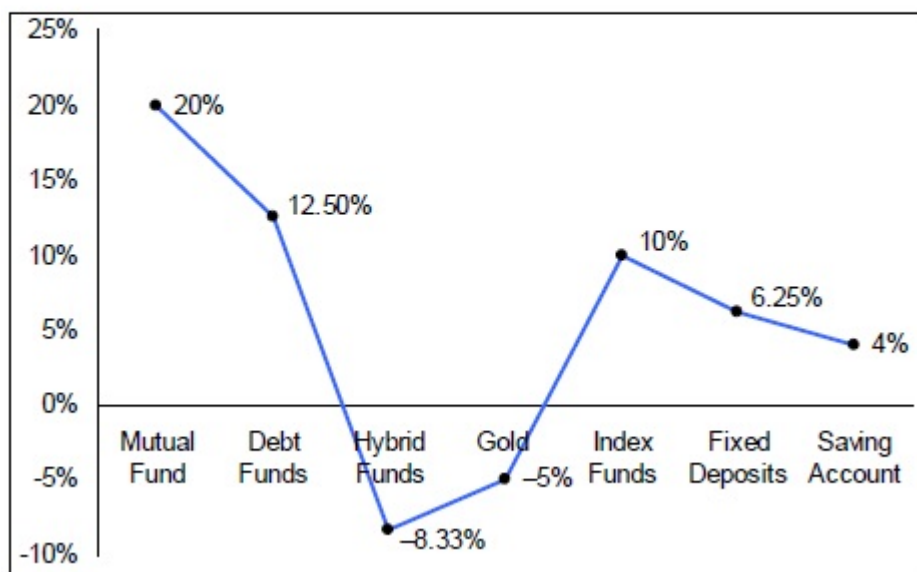
- 1) Virat
- 2) Dhoni
- 3) Both Dhoni & Maxwell
- 4) Warner

**Q 6.** If each player scored at least 60% of their runs thru sixes, what could be the minimum difference in runs scored by Rohit and Virat?

**Directions for questions 7 to 10:** Answer the questions on the basis of the information given below.

The table given below shows the break-up of Mr. Jindal's investment portfolio in 7 different sectors in 2021, while the line graph given below shows the percentage of profit or loss from each of these investments in 2021 as compared to the previous year 2020.

Mutual Fund	Debt Funds	Hybrid Funds	Gold	Index Funds	Fixed Deposits	Saving Account
20%	15%	10%	10%	12%	25%	8%



**Q 7.** The share of investment in Fixed Deposits in 2020 was approximately what percent more or less than the share of investment in Debt Funds in the same year?

- 1) 43.33%
- 2) 76.5%
- 3) 56.67%

4) 83.5%

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**Q 8.** Mr. Jindal divided his investment of Mutual Fund into four companies A, B, C and D in equal proportion in 2021. If the market share of A becomes three times in 2021 as compared to 2020, then find the total share (in %) of B, C and D in the overall portfolio in 2020.

- 1) 13
  - 2) 14
  - 3) 15
  - 4) 16
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**Q 9.** If the total investment by Mr. Jindal in all funds together was Rs. 60 lakhs in 2020 and the break-up of his investment in Hybrid Funds, Gold and Saving Account was same as in 2021, then what was his total profit/loss (in Rs.) in these three areas of investment in 2021?

- 1) 60,800
  - 2) 62,400
  - 3) 58,600
  - 4) 50,800
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**Q 10.** Mr. Jindal invested equally amounts in four companies W, X, Y and Z of Index Funds in 2021. If out of these four companies, only company X expected to show a loss (i.e., a maximum of 20%) in 2022 and Index Funds is expected to show an overall profit of 10%, then what would be the maximum profit (in %) of Y in 2022?

- 1) 50%
  - 2) 40%
  - 3) 100%
  - 4) 60%
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**Directions for questions 11 to 16:** Answer the questions on the basis of the information given below.

Twenty four (24) candidates from XYZ Academy crack the Civil Services Examination and are selected for one out of the three services - Administrative, Revenue and Police - based on their performance in the Examination. These candidates have consecutive roll numbers from C01 to C24. The following information is also known that:

- (i) The number of candidates joining each service is different. The number of candidates joining the Police Services is even and is four more than those joining the Revenue Services.
- (ii) C14 does not join Administrative Services. C19, C20, C23 and C24 join the Police Services. None of the other candidates with consecutive roll numbers join the same service.
- (iii) Out of all the candidates that join the Revenue Services, five have roll numbers that are multiples of 3. Among the first twelve candidates (i.e., from C01 to C12) only two join the Revenue Services.
- (iv) All candidates joining the Administrative Services have roll numbers that are even. The number of candidates joining the Administrative Services is neither the highest nor the lowest among the three categories.

**Q 11.** Which of the following MUST be true?

- 1) C13 joined the Police Services.
- 2) C14 joined the Revenue Services.

3) C21 joined the Administrative Services.

4) C13 joined the Revenue Services.

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**Q 12.** What can be said about the number of candidates, who joined the Police Services from among C01 to C12?

1) Exactly 4

2) At least 8

3) Exactly 6

4) At most 5

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**Q 13.** What is the maximum gap between the roll numbers of any two consecutive candidates who joined the Revenue Services?

1) Three

2) Six

3) Five

4) Four

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**Q 14.** How many possible triplets of the given candidates, whose roll numbers are three consecutive numbers, have joined three different services?

1) 8

2) 11

3) 12

4) 10

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**Q 15.** Which of the following statements is/are INCORRECT?

I. C14 and C18 joined the same service.

II. Exactly 5 candidates have joined the Administrative Services whose roll numbers are between C02 and C10.

III. The absolute difference between the number of candidates joining Administrative Services and Revenue Services is 4.

1) I only

2) Both I & II

3) Both II & III

4) All I, II & III

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**Q 16.** If the first letter of the names of the candidates from C01 to C24 are in alphabetical order such that only letters O and X are missing, then which of the following MUST be FALSE?

1) Dev and Qadir join the same service.

2) Umesh and Chetan join different services.

3) Hiten, Jiten and Lalit join three different services.

4) Amit and Yogi join the Police Services.

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

A cube is painted on all its six faces such that each face is painted with one color only which is then cut into 343 smaller identical cubes. There are only 4 colours available - Red, Green, Blue, and Yellow for painting of the cube and no four faces of the cube are painted with the same color. Atleast one of the faces is painted Blue and atleast one of the faces is painted Green.

**Q 17.** What can be the maximum number of smaller cubes which have both red and blue colours on atleast one of their faces?

- 1) 38
- 2) 36
- 3) 40
- 4) 34

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**Q 18.** When each of the four colours are painted on atleast one face and the number of faces painted with blue color is maximum, then what can be the minimum number of smaller cubes which have blue color on atleast one of their faces?

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**Q 19.** Let  $x$  be sum of the number of faces painted with yellow and green colours. When number of faces painted with blue and yellow colour is equal to number of faces painted with green and red colour, then how many different values can  $x$  take?

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

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**Q 20.** When the number of faces of the bigger cube painted in green color is maximum possible, then what can be the maximum number of smaller cubes with no face painted in green color?

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