

## Prime CAT 09 2022 DILR

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

An online real estate portal also does the accreditation of the properties enlisted on its website based on four parameters: Location (L), Construction Age (C), Floor Area (F), and Amenities (A). The four parameters are used to arrive at an overall rating, which the online portal displays alongside the property advertisement on its website, so that customers can see the rating and decide for themselves whether to invest in the property or not. Each parameter has five possible ratings - 5, 4, 3, 2, and 1. The overall rating for a property is the weighted sum of the ratings in the four parameters. The weights of the parameters are 10%, 20%, 30% and 40% in some order, but the order is not disclosed.

The table given below shows the partial ratings of ten real estate properties on the online portal in the four parameters (L, C, F, and A):

Property	Location (L)	Construction Age (C)	Floor Area (F)	Amenities (A)
M	5	5	5	4
N	4	3	2	2
O	4	2	2	3
P	–	2	4	3
Q	5	5	4	5
R	5	–	4	4
S	3	1	–	2
T	3	2	2	4
U	5	4	5	–
V	3	5	2	4

It is further known that in terms of overall ratings:

- (i) A high overall rating of a property represents a better investment and a low overall rating represents a poor investment.
- (ii) Investing in property N is better than investing in property O.
- (iii) Investing in property Q is better than investing in property M.
- (iv) Investing in property T is better than investing in property N.

**Q 1.** How many out of ten properties are rated 4 or more on at least three parameters?

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**Q 2.** The weights of Floor Area (F) parameter is

- 1) 10%
  - 2) 20%
  - 3) 30%
  - 4) 40%
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**Q 3.** What is the absolute difference between the overall rating of properties N and T?

- 1) 0.1
  - 2) 0.2
  - 3) 0.3
  - 4) 0.4
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**Q 4.** Which of the given ten properties can be the best investment for the property?

- 1) M
  - 2) V
  - 3) Q
  - 4) U
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**Q 5.** How many properties can have an overall rating between 3 and 4 both inclusive?

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**Q 6.** If the sum of rating for property R on parameter C and the rating for property U on parameter A is 7, then which of the following cannot be the overall rating for property R?

- 1) 3.3
  - 2) 3.7
  - 3) 4.4
  - 4) 4.1
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**Directions for questions 7 to 10:** Answer the questions on the basis of the information given below.

The given chart shows the timelines for four projects and the grades obtained by four teams, namely A, B, C and D, which have a total of 12, 11, 14 and 13 members respectively from a class of 50 students. These teams work on four different projects assigned to them on four subjects, namely Science, Math, Geography and History. Each project has been graded out of a total of 10 marks. The scores obtained by the teams have been shown in the colored boxes representing the timelines. The total project duration means the total time taken for completing all four projects. The individual score of each team member is equal to the team score.

Project	Science Project				Math Project				Geography Project				History Project			
Month	A	B	C	D	D	B	C	A	C	D	A	B	A	D	B	C
Jan	9.5													8		
Feb		8.5	8	7												
Mar													9			
Apr							8.5									
May					7.5	8		9.5								
Jun																
Jul																
Aug																
Sept									9		8.5				6.5	
Oct										8		7.5				
Nov																
Dec																8

**Q 7.** Which of the following statements is/are true?

- I. The total project duration was different for all the four teams.
- II. Only one of the teams worked upon two projects simultaneously.
- III. Exactly 3 teams complete all their projects in at most 10 months.

- 1) Only I is true.
- 2) Both I and II are true.
- 3) Only III is true.
- 4) Both II and III are true.

**Q 8.** If we write the projects in ascending order of the average time taken by a team to complete them, then which of the following order of projects is correct?

- 1) Geography, Science, History, Math
- 2) History, Geography, Science, Math
- 3) Geography, History, Science, Math
- 4) Geography, History, Math, Science

**Q 9.** How many members were there in the team that had the second highest total score in all the projects put together?

- 1) 11
- 2) 12
- 3) 13
- 4) 14

**Q 10.** If the productivity of a team for a project is calculated as: Total score obtained by a team in all the projects/Number of members in the team × Total time spent (in months) by the team, then which of the following statements is true?

- 1) The team with the maximum number of members has the maximum productivity.
  - 2) The teams that worked for an equal amount of time had almost the same productivity.
  - 3) The teams with equal total scores had the same productivity.
  - 4) The team with the minimum number of members had the maximum productivity.
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**Directions for questions 11 to 16:** Answer the questions on the basis of the information given below.

Aadi, Bali, Chan, Deep and Ehan - are five men and Pakhi, Quin, Ryan, Sara and Tara - are five women.

Each of them is living in one of the four housing societies – A, B, C and D. One of the languages of Hindi, Sanskrit, Punjabi and Telugu is the first language of each person, and one different language among of these four languages is the second language. The following facts are known about the ten persons:

- (i) Three persons are from A, three are from B, two men are from C, and the remaining two women are from D.
- (ii) Punjabi is the second language of both the men of B, while Sanskrit is the first language of the woman of B.
- (iii) Bali is from B and his first language is Sanskrit. Chan is from A and his first language is Punjabi.
- (iv) Sanskrit is the first language of one man, while Hindi is the second language of three women.
- (v) Sara and Aadi are from the same society. Sara's second language is Hindi.
- (vi) Pakhi and Tara belong to the same society. Hindi and Sanskrit are the first and second languages of these two women only.
- (vii) Telugu is Ehan and Quin's first language.
- (viii) Punjabi is the first language of one woman and two men. All three are from different societies.

**Q 11.** The first language of Aadi is

- 1) Hindi
  - 2) Sanskrit
  - 3) Punjabi
  - 4) Telugu
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**Q 12.** The persons living in housing society D are

- 1) Pakhi and Tara
  - 2) Ryan and Quin
  - 3) Sara and Ryan
  - 4) Quin and Sara
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**Q 13.** Which language can be the second language of the largest number of people?

- 1) Hindi
  - 2) Sanskrit
  - 3) Punjabi
  - 4) Telugu
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**Q 14.** Which of the following statements is/are CORRECT?

- I. The first language of Sara and Ehan is the same.
- II. The first language of Ryan and Deep is the same.
- III. No language (first or second) of Chan and Ehan can be the same.

- 1) III only
  - 2) I only
  - 3) II only
  - 4) Both II and III
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**Q 15.** Which of the following statements is FALSE?

- 1) Tara is from society A.
  - 2) Deep is from society C.
  - 3) Ehan's second language cannot be Punjabi.
  - 4) Chan's second language can be Telugu.
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**Q 16.** If Hindi is the second language of women only, then Telugu will be the second language of which of the following persons?

- 1) Chan and Ehan
  - 2) Chan and Deep
  - 3) Deep and Ryan
  - 4) Bali and Ryan
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**Directions for questions 17 to 20:** Answer the questions on the basis of the information given below.

Four friends - Aditi, Binu, Chitra and Dev – have to attend the wedding of their childhood friend Priya. Due to their busy work schedule they decide to buy gifts individually. Later, at the wedding they reveal the gift items they have bought for Priya and observed that they have bought some similar items.

Item	Quantity	Price (in Rs.)
Cash	–	20,000
Jewellery sets	3	4000/set
Digital Appliances	4	5000/appliance
Silver coins	x	1000/coin

Further, it is also known that:

- (i) Aditi, Binu, Chitra and Dev spent the money in the ratio of 2 : 3 : 2 : 4. None of them spent more than Rs. 25,000.
- (ii) The number of silver coins bought by Binu, Chitra and Dev is in the ratio of 1 : 1 : 2.
- (iii) Aditi bought 2 jewellery sets and at most 4 silver coins.
- (iv) One friend who bought maximum number of silver coins bought exactly 2 digital appliances and gave the maximum amount in cash.
- (v) Each friend gave some amount of cash in the integral multiples of 1000.

**Q 17.** What is the value of x?

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**Q 18.** What amount (in Rs.) did Dev give in cash?

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**Q 19.** If the amount gifted in cash by Aditi, Binu, Chitra and Dev is in the ratio of 1 : 3 : 2 : 4 respectively, then which of the following pair of friends bought digital appliances?

- 1) Binu, Dev
  - 2) Binu, Chitra, Dev
  - 3) Binu, Chitra
  - 4) Chitra, Dev
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**Q 20.** If Binu and Chitra paid equal amounts in cash, then what is the sum of the money spent (in Rs.) by Binu and Dev in buying gifts and coins other than cash?

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