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

A newly constructed office space has a row of cubicles that are numbered 1 to 20 sequentially from left to right. The employees occupy the cubicles in such a way that all those who work in the same department sit together and there is a minimum gap of one cubicle between the employees of each department. The female employees are Ankita, Bhumi, Emily, Janki, Maya and Neha whereas the male employees are Champak, Dhruv, Farhan, Ganesh, Hiten, Ishan, Ketan, and Lalit. They work in five different departments Namely Admin, Accounts, IT, HR and Sales.

Further, it is also known that:
(i) Dhruv and Champak are from Admin and one of them sits at the end of the row. Ankita and Hiten are from Accounts and the same is true for both of them too.
(ii) Cubicles with numbers that are multiples of 9 are vacant whereas those that are multiples of 5 are occupied by females.
(iii) Maya and Farhan's cubicles have two cubicles between them which are occupied. There are 4 members in HR. Janki is in cubicle 10 and there is only one vacant cubicle next to her.
(iv) Ketan and Emily are neighbors of Ishan. Ganesh is not in HR. Neha, from IT, sits at a gap of two cubicles from Emily, who is the only female in Sales.
(v) The sum of cubicle numbers of employees of IT department and HR department are consecutive multiples of 11.

**Q 1.** In which of the following cubicles does Lalit sit?

**1)** 7

**2)** 6

**3)** 11

**4)** 17

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**Q 2.** What is the absolute difference between the cubicle numbers of Ganesh and Ishan?

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**Q 3.** What is the total number of ways in which the employees can be seated?

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**Q 4.** What is the sum of the vacant cubicle numbers?

**1)** 57

**2)** 65

**3)** 71

**4)** 49

**Q 5.** If there are two cubicles between the cubicles of Champak and Farhan, then how many cubicles will be there between the cubicles of Maya and Ankita?

**1)** Ten

**2)** Eleven

**3)** Twelve

**4)** Thirteen

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**Q 6.** If the sales department recruits one new employee, then which of the following cubicles will he occupy?

**1)** 13

**2)** 8

**3)** 14

**4)** 18

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

Seven pilots, Aman, Bihan, Chand, Dhruv, Esha, Fred and Gita are scheduled to fly seven different airplanes from Chennai International airport to three different destinations - Mumbai, Delhi and Kochi. The flight to Mumbai takes 2 hours, the flight to Delhi takes 3.5 hours and the flight to Kochi takes 1 hour. The following airport log shows the departure times for the flights of the pilots. Some of the information is missing and has to be figured out in the course of answering the questions.

| **Time** | 7:00 | 10:00 | 12:00 | 14:00 | 15:00 | 16:00 | 19:00 |
|---|---|---|---|---|---|---|---|
| **Pilot** | - | Dhruv | - | - | Fred | Bihan | - |

Additionally here are some statements from the pilots:
(i) **Bihan:** I shall fly the last plane to my destination.
(ii) **Chand:** Mine is the third flight to the same destination as Aman's flight.
(iii) **Fred:** I am going to fly the only plane to my destination.
(iv) **Dhruv:** I shall fly one of the only two planes going to Mumbai.
(v) **Aman:** The last flight of the day is to Delhi but I am not flying it.

**Q 7.** Which of the following is definitely TRUE about the plane that Esha is flying?

**1)** It takes off before Fred's flight.

**2)** It flies to Kochi.

**3)** It is the first flight of the day

**4)** It is to the same destination as Gita's flight.

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**Q 8.** Which of the following cannot be the number of hours between Aman and Esha's flights?

**1)** 2 hours

**2)** 5 hours

**3)** 7 hours

**4)** 12 hours

**Q 9.** If both Aman and Esha take off before Chand, then how many hours after Chand does Gita take off?

**Q 10.** Which of the following statements is TRUE regarding the above flight schedule?

**1)** At 15:35 there is exactly one flight that is yet to land.

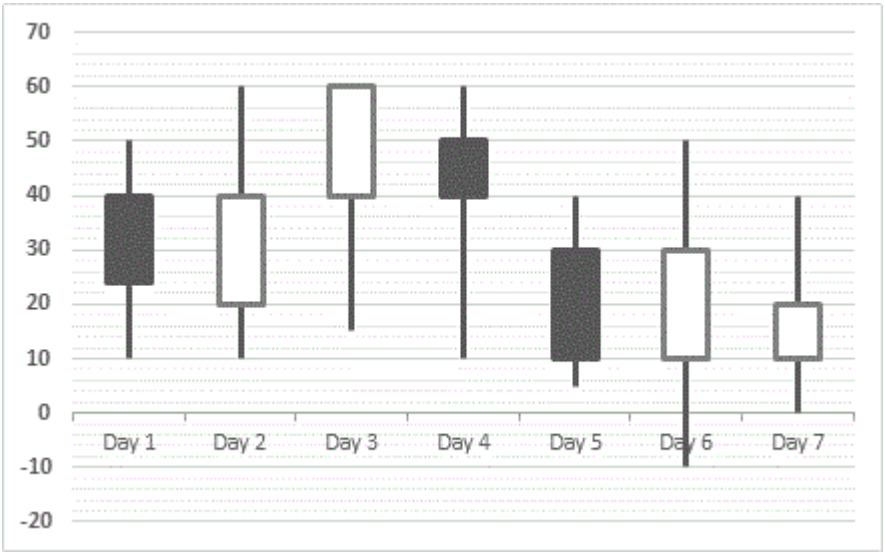
**2)** At 16:05 there are three flights that are yet to land.

**3)** At 15:15 there are exactly two planes that are still flying.

**4)** At 17:35 there is exactly one plane flying.

**Directions for questions 11 to 16:** Answer the questions on the basis of the information given below.

Rohit is a stock broker, who does "One-day trading", which means that he buys stocks in the morning and sells them during the day. He invests in 7 different stocks on 7 different days of a week. Units of stocks are called shares. The shares of every stock purchased by Rohit from Day 1 through Day 7 are consecutive integral multiples of 10 in the given order.
The candlestick chart depicts the prices of these 7 stocks on the day that each one was purchased. The top and bottom ends of the line respectively indicate the maximum and minimum prices of the stock at any time on that day. The horizontal edges of the rectangle correspond to the stock's opening and closing prices. If the rectangle is white, then the opening price is lower than the closing price, but if the rectangle is shaded, then the closing price is lower than the opening price. Rohit buys the shares of the stocks at the opening time, 9:00 AM and sells the shares of each stock at the closing time, 6:00 PM.
Further known information is that Rohit buys shares of each stock in a distinct consecutive quantity less than 100 in the integral multiples of 10 in the given order from Day 1 through day 7.




**Q 11.** If Rohit had a loss of Rs. 400 on a day in a week, then what was the total loss/profit (in Rs.) earned by Rohit at the end of each day in that week?

**1)** 2400

**2)** 1560

**3)** 1340

**4)** 1430

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**Q 12.** If Rohit earned a total profit of Rs. 1,580 in the week, then what was the total minimum value (in Rs.) of shares of each stock bought by Rohit at any time of the day in the week?

**1)** 1900

**2)** 1200

**3)** 1400

**4)** 1120

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**Q 13.** If Rohit lost Rs. 1,000 on a particular day, then what was the average profit (in Rs.) per day earned by him at the end of the days with no loss?

**1)** 725

**2)** 850

**3)** 733

**4)** 675

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**Q 14.** If the profit earned by Rohit at the end of 2 out of 7 days during the week was Rs.800 each, then what was the total number of shares of each stock purchased by him during the week?

**1)** 280

**2)** 450

**3)** 330

**4)** 350

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**Q 15.** If Shweta, who is a friend of Rohit, invests in a similar manner as Rohit, but buys a lesser number of shares of each stock than Rohit, then what will be the maximum total profit (in Rs.) earned by Shweta and Rohit together at any time on the second day of the week?

**1)** 4200

**2)** 3500

**3)** 2800

**4)** 1400

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**Q 16.** If Rohit earned a profit of Rs. 1,600 on a particular day of the week, then what was the total returns (in Rs.) earned by him at the end of each day during the whole week?

**1)** 14,450

**2)** 12,620

**3)** 12,440

**4)** 14,480

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

Frieda and John begin a sequence of hops on a 5 × 5 grid of squares, moving one square on each hop and choosing the direction of each hop at random - up, down, left, or right. They do not hop diagonally. When the direction of a hop takes them off the grid, they jump to the opposite edge. For example, if Frieda begins in the center square (–10) and makes three hops "up", the second hop would place her in the top row middle square, then the third hop would cause Frieda to jump "down" to the opposite edge, landing in the bottom row middle square.

| Columns (C) Rows (R) | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1 | –1 | 10 | –9 | 9 | 3 |
| 2 | –5 | –6 | 14 | 7 | –2 |
| 3 | –8 | 4 | –10 | 0 | 13 |
| 4 | 1 | 11 | 5 | –3 | 2 |
| 5 | 8 | –4 | 6 | 12 | –7 |

Both Frieda and John begin from a different cell of the grid by randomly picking the row and column and make a certain number of hops. They keep on adding the number in the cell they hop into starting from the number in the cell they begin with, such that, whoever gets a higher sum, wins.

**Note:** A player cannot hop back on to an already visited cell in a game.

**Q 17.** If Frieda and John begin from R3C4 and R5C1 respectively and hop exactly 3 times, then what could be their maximum sum possible?

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**Q 18.** John and Frieda both hop exactly 3 times either towards right or towards left. If John begins from R1C3 and Frieda definitely loses, then from which of the following cells could she have started?

**1)** R4C2

**2)** R4C4

**3)** R5C1

**4)** R2C2

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**Q 19.** Frieda and John begin from R2C1 and R2C5 respectively and make three hops – up, right, and down - in any order, then which of the following statements is true?

**1)** If John hops down first, he will always win.

**2)** If John hops up first, he will always lose.

**3)** If Frieda hops down first, she will always lose.

**4)** If Frieda hops up first, she will always win.

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**Q 20.** Let John's total score be 20 at the end. If Frieda and John both hops for exactly 2 times, then maximum how many cells of column 4 can Frieda begin from, in order to win?