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

Six persons namely Andy, Bharat, Chahel, Daksh, Ekta and Faiz played a game in which they had to guess the prices of five different objects A, B, C, D and E. Later it was found that each of them guessed the price of exactly one object correctly. Also, the price of each item was guessed correctly by at least one person. For each object one guess was half the original price and one guess was double the original price. The table given below shows the prices (in Rs.) guessed by these six persons for each object:

	Andy	Bharat	Chahel	Daksh	Ekta	Faiz
A	14	56	28	20	7	22
B	9	13	36	52	26	18
C	12	24	6	3	48	10
D	36	16	72	18	9	36
E	5	30	15	60	120	30

Q 1. What is the price (in Rs.) of the object guessed correctly by Ekta?

Q 2. If the price of object D was not Rs. 18, then what was the price (in Rs.) of the object C?

Q 3. What could be the minimum possible total price (in Rs.) of all the objects taken together?

1) 86

2) 100

3) 108

4) 94

Q 4. If a, b, c, d and e represent the prices (in Rs.) of objects A, B, C, D and E respectively, then which of the following could be true?

1) a + d + e = 110

2) b + c + d = 74

3) a + b + c = 60

4) a + b + d = 90

Directions for questions 5 to 10: Answer the questions on the basis of the information given below.

An engineering college receives scholarship funds every year. Then college conducts a test and interview to shortlist certain candidates who receives scholarship as per their performance. The candidate with the highest cumulative score receives the highest scholarship, the candidate with second highest scores receives second highest scholarship, the candidate with third highest scores receives third highest scholarship and so on. There were no ties in the scores of the candidates.
All the shortlisted candidates pay a registration amount of Rs. 20,000 after appearing for the scholarship test. Exactly top 5 candidates receive scholarships such that if a candidate fail to secure more than 15% of the scholarship funds, they lose their registration amount.
The table given below provides some incomplete information about scholarship funds allocated to the shortlisted candidates in four consecutive years 2018 to 2021.

	College Scholarships 2018-2021			
	2018	**2019**	**2020**	**2021**
No. of Candidates shortlisted	12	8	10	6
Total Scholarship funds received (in Rs.)	10,00,000	15,00,000	8,00,050	9,50,000
Scholarship to candidate with highest score (in Rs.)	4,50,000			
Scholarship to candidate with 2nd highest score (in Rs.)	2,75,000	4,00,000		
Scholarship to candidate with 3rd highest score (in Rs.)				1,50,000
Scholarship to candidate with 4th highest score (in Rs.)				10%
Scholarship to candidate with 5th highest score (in Rs.)				

The following additional facts are known:
(i) The 2nd highest scorer had scholarship of Rs. 1,00,000 more than the 3rd highest scorer in year 2018. 5th highest scorer obtained 25% of what fourth highest scorer obtained in year 2018.
(ii) None of the candidates shortlisted in 2020 lost their joining amount. The difference in the scholarship received by any pair of candidates in this year was at least Rs. 20,000.
(iii) The candidate with second highest score in 2021 received 10% of total scholarship fund more than that of candidate with 3rd highest score, and candidate with highest score received 20% of total scholarship more than that of candidate with 2nd highest score.
(iv) All the candidates receive scholarships in the integral multiples of 10.

Q 5. What is the percentage of scholarship funds allocated to candidates who lost their joining amounts in 2018?

1) 15%

2) 10%

3) 33.33%

4) 20%

Q 6. In 2019, all five candidates received scholarship funds which formed Arithmetic Progression, then how many candidates received their registration amount back?

1) 0

2) 1

3) 2

4) 3

Q 7. What BEST can be concluded about the scholarship amount (in Rs.) received by the candidate with highest score in year 2020?

1) between 1,50,000 and 1,80,050

2) 2,00,010

3) 1,80,020

4) less than 1,95,000

Q 8. What was the scholarship fund (in Rs.) received by the 5th highest scorer in 2021?

Q 9. In 2019, all five candidates received scholarship funds which formed Arithmetic Progression, then total how much registration amount (in Rs.) remained with the college at the end of the scholarship allocation from 2018 to 2021?

Q 10. Every year the margin between the scholarship amount received by the candidates who scored highest and 2nd highest respectively varied. Which of the following CANNOT be the list of years, in increasing order of this margin?

1) 2021, 2019, 2018, 2020

2) 2021, 2018, 2019, 2020

3) 2019, 2018, 2021, 2020

4) 2019, 2021, 2018, 2020

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

Eight students - A, B, C, D, E, F, G and H are planning to work on 3 projects - P1, P2, and P3. For these 3 projects they form 3 teams - T1, T2 and T3. Team T1 works on project P1, Team T2 works on project P2 and Team T3 works on project P3. For each project to be successful, the students need to work on certain days, as per the requirement of the projects. The table given below shows information about the different days that the students can work for the projects:

Student	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
A	✓	x	x	x	X	x	x	x	✓
B	X	✓	✓	x	X	✓	x	x	X
C	X	✓	✓	✓	✓	x	✓	x	X
D	X	X	x	✓	✓	x	✓	x	X
E	X	X	✓	X	X	x	✓	x	X
F	✓	✓	x	X	X	x	x	x	✓
G	X	X	✓	X	X	x	x	x	✓
H	X	X	✓	X	X	x	✓	✓	X

Following is the additional information:
(i) The number of students in team T1, T2 and T3 are 5, 5 and 4 respectively. Each of the 8 students is in at least one team and being part of the team, must work for at least one day. No student can work for more than two days for a particular project.
(ii) In all the 3 teams, one student works on Day 1, one student works on Day 2 and one student works on Day 9, such that no two teams have same student who works on Day 9. Also, the student who works on Day 1 for a project does not work on any other day for that particular project.
(iii) F works in team T1 on Day 9 and G is in team T3. C is in two teams. Also, C cannot be in the same team as either H or D.
(iv) If work is done on a project on Day 3, then it will be done on Day 5 also. Similarly, if work is done on a project on Day 8, then it will be done on Day 7 also. If D is in a team, he always works for two days on the project. The same is true for G.
(v) In 2 teams out of 3, work is done on Day 6. Similarly, in 2 teams out of 3, work is done on Day 3 and the same is true for Day 4. While on Day 8, one student of only one team works.
(vi) Project P1 requires the students of Team T1 to work on exactly 7 different days out of the 9 different days listed in the table above. Similarly, project P2 requires students of team T2 to work on exactly 7 different days and project P3 requires students of team T3 to work on exactly 5 different days.

Q 11. E is in how many teams?

1) 1

2) 2

3) 3

4) Either (1) or (2)

Q 12. Among the following students who could have worked on Day 3 in team T1?

1) B

2) C

3) E

4) H

Q 13. Who worked on Day 2 in team T2?

1) C

2) B

3) Either (1) or (2)

4) F

Q 14. Among the following students who could have worked for two days on project P1?

1) F

2) B

3) C

4) All of these

Q 15. Which of the following students cannot work on project P2?

1) A

2) D

3) G

4) H

Q 16. In which of the following days maximum number of students work?

1) Day 2

2) Day 3

3) Day 4

4) Day 9

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

In the 5 × 5 grid given below, 25 consecutive integers starting from x are to be arranged such that each integer, except x and (x + 1), can be written as the sum of its some two neighbours. Some of the integers are already filled as disguised. Integers in the grid are neighbours if their cells touch along a side or at a vertex. Each integer is used exactly once. For example, (x + 8) and $((x + 4)^2 - 1)$ are neighbours of $(x + 4)^2$. Columns 1st, 2nd, ..., 5th are from left to right and rows 1st, 2nd, ..., 5th are from top to bottom.

			$(x + 4)^2 - 5$	$(x + 4)^2 - 4$
	(x + 5)	(x + 4)	(x + 3)	
$(x + 4)^2 - 2$	(x + 6)	x	(x + 2)	n
	(x + 8)	(x + 7)	(x + 1)	
$(x + 4)^2$	$(x + 4)^2 - 1$			$(x + 4)^2 - 3$

Q 17. How many different value(s) of x is/are possible?

Q 18. What is the average of all the integers in the 1st column cells?

1) 18.2

2) 19

3) 19.2

4) Either (1) or (3)

Q 19. What is the sum of all the integers in the primary diagonal cells (cells from top left to bottom right)?

1) 45

2) 50

3) 55

4) 60

Q 20. Which number is “n” in the grid?

1) 11

2) 14

3) 19

4) Either (2) or (3)
