A renowned TV channel airs nine daily shows – BB, NA, BV, LS, CC, CP, JM, TM and IM – each of duration 30 minutes such that the first show starts at 7 p.m. and the last show starts at 11 p.m. every day. Each of them is of a distinct genre – Family, Mythology, History, Reality, Horror, Comedy, Crime, News and Science – not necessarily in that order. The sequence in which the shows are aired in a day is the same throughout the week.

(i) The Reality show starts at 8.30 p.m. and is not immediately preceded by JM or IM. The News show
ends at 8 p.m.

(ii) CP starts at 7 p.m. and NA ends at 10.30 p.m. TM is the Mythology show which starts after 9 p.m.

(iii) The Horror show starts exactly 3 hours after the end of the Science show and neither of them is JM.

(iv) CC is immediately followed by BB and neither of them is a Family show or a News show.

(v) Exactly two shows are aired between BB and JM.

(vi) IM is neither immediately preceded nor immediately followed by NA.

(vii) Exactly four shows are aired between the Family show and the Horror show.

Q1. BV is a
(a) Family show (b) Horror show
(c) Crime show (d) Either (a) or (b)

Q2. Mythology show starts at
(a) 9.30 p.m. (b) 10 p.m.
(c) 11 p.m. (d) Cannot be determined

Q3. The show which starts at 9 p.m. can be
(a) JM, a Comedy show (b) IM, a History show
(c) BB, a Crime show (d) None of these

Five boys – Tanay, Rohan, Sanjeev, Ravi and Atul – and four girls – Shraddha, Ankita, Nidhi and Neelam – are to be divided into three teams such that no team is made up entirely of boys or entirely of girls. The teams will have exactly four, three and two members. Shraddha and Nidhi have to be in the same team, but they cannot be in the same team as Ravi. Exactly one among Neelam and Rohan has to be there in the team which has three members. If Sanjeev is selected in a team, Ravi has to be selected in the same team.

Q1. In how many ways can the group be divided into three teams?
(a) 5 (b) 7 (c) 6 (d) 8

Q2. How many different 2-member teams are possible?
(a) 8 (b) 7 (c) 5 (d) 3

Q3. If Neelam is in the team which has three members, who among the following cannot be with Ankita in the same team?
(a) Tanay (b) Atul (c) Rohan (d) Ravi

The following table gives the details regarding the performance of five batsmen — A, B, C, D and E.

Batsman	No. of Matches Played	Total Number of Innings	Total Number of Runs	Average
A	50	48	1800	40.0
B	50	50	2034	45.2
C	46	46	1679	36.5
D	44	44	1539	40.5
E	40	38	1806	51.6

The average of a batsman is computed as the total number of runs scored by the batsman divided by the number of innings in which the batsman was out.

Q1. The batsman with the highest number of not-outs is
(A) B (B) D (C) E (D) A

Q2. Batsman B had set for himself a target of 10 not-outs and also a certain total-runs target for the 50 matches he played. If at the end of the 50 matches, he found that he fell short of his total-runs target by 10%. by what percent is his actual average less than his targeted average?
(A) 20% (B) 15% (C) 10% (D) 25%

Q3. If batsman C plays four more innings and scores 320 runs more. then find the percentage change in his average.
(A) 20% (B) 25% (C) 30% (D) Cannot be determined

Ten teams - A, B, C, D, E, F, G, H, I and .1 - played a hockey tournament, wherein every team played exactly one match with each of the other nine teams. Given below is an incomplete table which gives the results of the matches between the teams. For any team, a match can have only three results - win, draw or loss. The points awarded to a team for a win, draw and a loss are +3, 0 and -3 respectively. The team with the highest number of points at the end is the winner of the tournament. The entry in any particular cell of the table gives the winner of the match between the corresponding two teams, unless the cell contains a "T" which means that the match ended in a draw. Also the following information is available:

Teams	A	B	C	D	E	F	G	H	I	J	Total points
A	–			D					A		-3
B	A	–								B	18
C		B	–		C				T		3
D			C	–				H		D	
E				E	–						-12
F		B	T			–				F	
G		T			T		–				18
H								–			
I		B		I			T		–		-3
J										–	3

(1) Only five matches ended as draws.
(2) H lost all its matches except one.
(3) The team which did not lose any match got a maximum number of points.
(4) The total number of points of D is greater than that of E.

Q1. Which team got the least number of points?
(A) F (B) D (C) H (D) E
Q2. What is the difference between the maximum number of points scored by any team and the minimum number of points scored by any team?
(A) 37 (B) 39 (C) 36 (D) 38
Q3. Which of the following statements is definitely true?
(A) There are three teams which won the same number of matches.
(B) G lost at least one match.
(C) Team B won the highest number of matches.
(D) The team which got the least number of points is not H.
Q4. The match between which of the following pairs of teams ended in a draw?
(A) G and I (B) F and D (C) I and E (D) C and G

A team of five members has to be selected from among 11 players — A through K. Among them B, C, D and E are the only senior players and at least one among them must be selected. If A is selected, then K should be selected. If D is selected, then neither I nor J can be selected. If G is selected, then neither H nor F can be selected.

Q1. If D is the only senior player selected, then who among the following cannot be selected
(A) A (B) K (C) G (D) F

Q2. If exactly four non•senior players are selected and G is one of them, then who among the following must be selected?
(A) B (B) I (C) A (D) K

Q3. If three senior players are selected, in how many ways can a team with neither D nor G be selected?
(A) 7 ways (B) 11 ways (C) 16 ways (D) 21 ways

Nine cards are numbered from 2 to 10, with each card bearing a distinct number. They are equally divided into three groups and put into three boxes - Box 1, Box 2, and Box 3. The sum of the numbers on the cards in the three boxes are denoted by S1, S2 and S3, in that order. The cards were put in the three boxes subject to the following conditions:
(i) S2 is as much more than S1 as S3 is more than S2.
(ii) Of the three, S1, S2 and S3, two are prime numbers.
(iii) The difference between S1 and S2 is a prime number.

Q1. What is the value of S3?
(A) 23 (B) 19 (C) 6 (D) 17

Q2. If no two of the cards numbered 8, 9 and 10 go into the same box. then which of following must be true?
(A) The card numbered 4 goes into box 1.
(B) The card numbered 3 goes into box 2.
(C) The card numbered 7 goes into box 3.
(D) The card numbered 5 goes into box 1.

Q3. If the numbers on the three cards in Box 2 are in arithmetic progression, then which of the following is definitely false?
(A) The card numbered 3 is in Box 2.
(B) The card numbered 8 is in Box 1.
(C) The card numbered 4 is in Box 1.
(D) The card numbered 7 is in Box 3.

Q4. If the cards numbered 2 and 7 are in the same box, then which of the following cards must be In Box 3?
(A) The card numbered 6 (B) The card numbered 8
(C) The card numbered 9 (D) The card numbered 10

The following table gives the details regarding the average scores of the students of eight different classes at St. Xavier's School, in the annual examinations of a certain academic year.

Class	Average score of boys who		Average score of girls who		Average score of students who		Overall average score
	failed	passed	failed	passed	failed	passed	
I	27.4	46.7	20.8	50.7	25.2	48.3	41.7
II	25.0	54.3	27.6	51.1	26.3	52.3	47.1
III	26.3	58.4	29.3	52.0	28.1	56.0	52.9
IV	29.6	60.8	28.6	63.3	29.3	62.3	51.3
V	20.5	44.2	24.5	42.1	21.5	43.5	34.7
VI	28.9	58.6	24.4	63.6	25.9	61.1	51.5
VII	30.1	50.8	32.5	46.3	31.3	48.1	45.3
VIII	26.0	55.6	29.0	50.6	27.4	54.6	44.4

Q1. In how many of the given classes is the pass percentage (i.e., the number of students passed as a percentage of the total number of students in that class) more than 75%?
(A) 2 (B) 3 (C) 4 (D) Cannot be determined

Q2. In how many of the given classes is the number of boys who passed more than the number of girls who passed?
(A) 2 (B) 3 (C) 4 (D) Cannot be determined

Q3. If the total number of students in class VII is twice that in class III, what is the ratio of the number of boys in class III to that in class VII?
(A) 18 : 25 (8) 4 : 5 (C) 9 : 16 (0) Cannot be determined

At a coaching institute, each of six faculty members - A, B, C, D, E and F - teaches at least one of the three subjects - Physics, Chemistry and Maths. Further, it is also known that
(a) A can teach only Physics, while each of B and C can teach Physics and Chemistry but not Maths.
(b) E can teach Physics and Maths but not Chemistry, while D can teach Chemistry and Maths but not Physics.
(c) F can teach only Maths. Mr. Planner, the director of the coaching institute, schedules the classes at the institute for every week.
On any day of the week on which the classes are scheduled, he has to schedule one class each in the three subjects - Physics, Chemistry and Maths. While scheduling, he has to satisfy the following conditions:
(i) In a week, any faculty member teaches not more than two classes of the same subject and not more than three classes in total.
(ii) Any faculty member teaches at most one class in a day. If all of the above conditions cannot be met for any day of the week, then there will be no classes scheduled for that day.

Q1. What is the maximum number of days in a week on which classes can be scheduled?
(A) 3 (8) 4 (C) 6 (D) 5

Q2. Which of the following cannot be the list of faculty members taking classes on any single day?
(A) A, B and F (B) B, D and F (C) B, C and F (D) A, E and F

Q3. If in a week. classes are scheduled for the maximum possible number of days and E takes two classes of Physics in that week, then which of the following represents the correct combination of faculty member and the respective number of classes of Chemistry that the faculty member taught in that week?
(A) B - 2, C - 2 and D - 1 (B) B - 1, C - 2 and D - 2
(C) B - 2, C - 1 and D - 2 (D) None of these

Each of eight students — Akash, Balu, Chakri, Diren, Ehsaan, Fatima, Giri and Had — is of a different height. All of them are standing in a row, facing in the same direction, from left to right, in the increasing order of their heights, such that the shortest person is at the extreme left. Three of them are from 1st standard, three from 2nd standard and two from 3rd standard.
(i) Akash, the second tallest, is not from 1st standard and Balu, who is the fourth tallest, is from 3rd standard.
(ii) Ehsaan is from 3rd standard but Chakri is not from 3rd standard.
(iii) Had is taller than Giri but shorter than Balu, while Diren is shorter than Akash.
(iv) Chakri is shorter than Giri but taller than Fatima.
(v) Neither the shortest nor the second shortest student is from 1st standard.

Q1. Which two students from the same standard are adjacent to each other?
(A) Had and Balu (B) Balu and Giri
(C) Gin and Hari (D) None of these

Q2. Which of the following statements is definitely true?
(A) Each 3rd standard student is next to at least one 3rd standard student.
(B) Each 3rd standard student is next to at least one 2nd standard student.
(C) No two students of the same standard are adjacent to each other.
(D) All of the above

Q3. How many students belonging to either 1st standard or 2nd standard have an odd number of students standing on their left?
(A) 0 (B) 2 (C) 4 (D) None of these

Five students — A, B, C, D and E — wrote an objective type test paper in which there were four questions — Q1, Q2, Q3 and Q4 — with four possible answer choices — 1, 2, 3 and 4 — for each question. Only one choice is correct for each question and the correct answer choice for no two questions is the same. One mark is awarded for every correct answer and there is no negative marking for wrong answers. Each student attempted all the questions and each got a different score. Further, the following information is known:
(i) A, B, C and E marked choice 3 for Q2, whereas A, B, D and E marked choice 2 for Q4.
(ii) D got the lowest score and B's score was less than that of E.
(iii) The number of questions for which both C and E marked the same answer choice is not more than two.
(iv) B, D and E marked choice 1 for Q3, and A marked choice 4 for Q1.
(v) Between Q1 and Q2, B marked choice 3 for one and choice 1 for the other, not necessarily in that order.
(vi) D did not mark the same choice for any two questions.

Q1. Who among the given students got three marks?
(A) E (B) A (C) B (D) Cannot be determined

Q2. Which answer choice did D mark for Q1?
(A) 3 (B) 4 (C) 2 (D) Cannot be determined

Q3. How many of the five students marked four distinct answer choices for the four questions?
(A) 2 (B) 4 (C) 1 (D) 3