Puzzle test for IBPS Clerk Mains, SBI Clerk Mains, IBPS PO Pre and SBI PO Pre Exams.

Directions: Study the following information carefully and answer the questions given beside.

Six professors viz. P, Q, R, S, T and U give lectures to the students. The total duration of all the lectures does not exceed 20 hours such that any lecture can be given for either in multiples of a full hour or half an hour. For example: A lecture can start at 3.00 PM or 3.30 PM but not on 3.15PM. The lectures are consecutive with no time gap between them. If a lecture ends at 2.00 PM, next lecture would start immediately at 2.00 PM. Q gave lecture at 12.00 PM but was not the first one to give lecture. The duration of S' lecture was twice the duration of P's lecture who gave lecture just after Q. R's lecture was of 1 hour only. Lecture durations of no two professors were the same. The sum of the durations of T's and Q's lecture was equal to that of S's and P's lecture. Only T gave lecture after S. U's lecture which ended at 12.00 PM lasts for 2 hours. No lecture was held before 10.00AM. The time duration of Q's lecture was 1.5 hour more than that of its immediately succeeding lecture.

1.   **What is the total duration of all the lectures?**

A. 17 hours   B. 18 hours   C. 19 hours   D. 20 hours   E. Can't be determined

2.   **What was the difference between the time duration of lectures of S and Q?**

A. 30 minutes   B. 1 hour   C. 1.5 hour   D. 2 hours   E. Either A or B

3.   **When did the last lecture end?**

A. 5.30AM   B. 4.30AM   C. 3.00AM   D. 4.00AM   E. Can't be determined

4.   **Whose lecture lasts for the maximum time?**

A. P   B. Q   C. S   D. T   E. None of these

5.   **When did R's lecture start?**

A. 6.30 PM   B. 5.30 PM   C. 5.00 PM   D. 7.00 PM   E. Can't be determined

Correct Answers:

1	2	3	4	5
B	B	D	C	A

Common explanations :

Reference:
No lecture was held before 10.00AM.
Q gave lecture at 12.00PM but was not the first one to give lecture.
U's lecture which ended at 12.00 PM lasts for 2 hours.
Only T gave lecture after S.

Inference:
As per first and second hints, we can infer that U was the first one to give lecture.
As per the last hint, we can infer that T was the last one to give lecture.

Professor	Lecture start time	Lecture end time	Duration (In hours)
U	10.00AM	12.00PM	2
Q	12.00PM		
S			
T			
Total Duration			2

Reference:
The duration of S' lecture was twice the duration of P's lecture who gave it just after Q.
R's lecture was of 1 hour only.
Lecture duration of no two professors was same.
The sum of the durations of T and Q's lecture was equal to that of S and P's lecture.
The total duration of all the lectures is does not exceed 20 hours

Inference:
As per third hint, it is clear that the remaining lectures can't be of 2 hours or 1 hour.

Possibility-1: If P's lecture lasts for 1.5 hours then S' will be for 3 hours and Q's lecture will also last for 3 hours, which is **not possible** as no two lectures have same duration.

Possibility-2: If P's lecture lasts for 2.5 hours then S' lecture will be of 5 hours and Q's lecture will last for 4 hours, which **might be possible**.

Possibility -2

Professor	Lecture start time	Lecture end time	Duration (In hours)
U	10.00AM	12.00PM	2
Q	12.00PM	4.00PM	4
P	4.00PM	6.30PM	2.5
R	6.30PM	7.30PM	1
S	7.30PM	12.30AM	5
T	12.30AM	4.00AM	3.5
Total Duration			18

Possibility-3: If P's lecture is for 3 hours, then S' lecture will be for 6 hours and Q's lecture will last for 4.5 hours, which **is not possible as the total duration exceeds 20 hours.**

Possibility-3:

Professor	Lecture start time	Lecture end time	Duration (In hours)
U	10.00AM	12.00PM	2
Q	12.00PM	4.30PM	4.5
P	4.30PM	7.30PM	3
R	7.30PM	8.30PM	1
S	8.30PM	2.30AM	6
T	2.30AM	7.00AM	4.5
Total Duration			**21**

Answers :

1. From common explanation, we have

The total duration of all the lectures is 18 hours.

Hence option B is correct.

2. From common explanation, we have

The difference between the time duration of lectures of S and Q was 1 hour.

Hence option B is correct.

3. From common explanation, we have

The last lecture i.e. T's lecture ended at 4.00AM.

Hence option D is correct.

4. From common explanation, we have

S' lecture lasts for maximum time.

Hence option C is correct.

5. From common explanation, we have

R's lecture started at 6.30 PM.

Hence option A is correct.