

GATE

ALL BRANCHES



General Aptitude

Analytical Reasoning

Lecture No.- 04



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Recap of Previous Lecture



Topic

Arrangements & Ranking



Topics to be Covered



Topic-1

Problem Solving



[MCQ]



#Q. Rehan ranks seventh in a class of twenty. What is his rank from the last?

Assignment

$$L.P = \text{Total No.} P \rightarrow R.P + 1$$

$$= 20 - 7 + 1$$

$$= 13 + 1$$

$$= 14$$

A 13th

B 8th

C 15th

D 14th

[MCQ]



#Q. Four girls are swimming in a stream.

- Harjeet is further ahead of Manjula
- Neena is behind Manjula
- Ruchi is between Manjula and Neena.

Who is second from the last?

- A** Neena
- B** Manjula
- C** Harjeet
- D** Ruchi

Harjeet

Manjula

Ruchi

Neena

Assignment

[MCQ]



#Q. Five poles are standing in a row. M is on the left of N, O is on the right of P, which is on the right of N. If L is on the left of M, which pole is in center?

Assignment

L M N P O

A

L

B

M

C

N

D

O

[MCQ]



#Q. Six families A, B, C, D, E and F are living in houses in a row. B has F and D as neighbours, E has A and C as neighbours. A does not live next to D. Who are F's next door neighbours?

Assignment

A

B and E

B

B and C

C

B and D

D

Can't be determined

F
D B

~~D~~
F

~~A~~
C E A

C E A F B D

F B D C E A
D B F A E C
D B F C E A
A E C F B D
A E C D B F

[MCQ]



#Q. Sudha is taller than Pushpa but shorter than Malati. Geeta is shorter than Vinu and Vinu is not as tall as Pushpa. Who should be in the middle if they stand in a row according to height?

Assignment

- A** Pushpa
- B** Malati
- C** Sudha
- D** Geeta

Malati
Sudha
Pushpa
Vinu
Geeta

Vinu
Geeta

[MCQ]



#Q. Priti scored more than Rahul. Yamuna scored as much as Divya. Lotika scored less than Manju. Rahul scored more than Yamuna. Manju scored less than Divya. Who scored the lowest?

Assignment

- A** Yamuna
- B** Manju
- C** Lotika
- D** Rahul

Priti
Rahul
 $Y = D$
Manju
Lotika

Yamuna = Divya

[MCQ]



#Q. P, Q, R, S, and T are sitting in a row. Q is between P and T. To find out who among them is in the middle, which of the following information given in the statements A and B is/are sufficient?

1. P is left of Q and right of S
2. R is at the right end

A

Only {2} is sufficient

B

Only {1} is sufficient

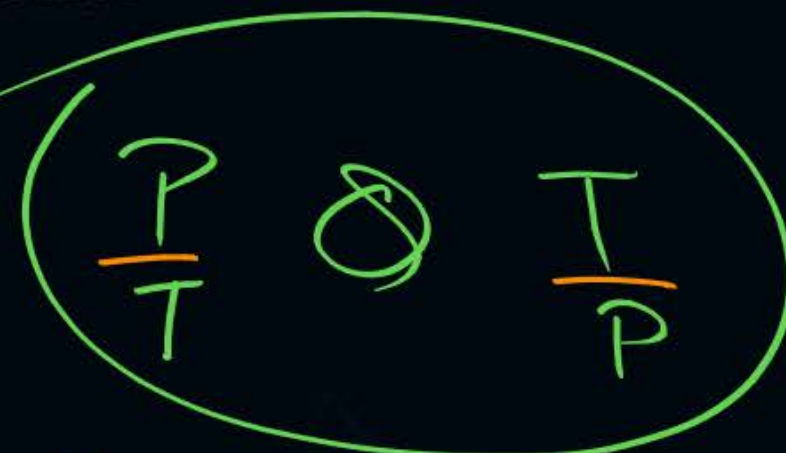
C

Either {1} or {2} is sufficient

D

Both {1} and {2} together are needed

Assignment



S P Q T R

R S P Q T R

S P Q T S R OR R S T Q P S R

[MCQ]



#Q. Five boys took part in a race. Ronit finished before Mohit but behind Gopal. Abbas finished before Sailesh but behind Mohit. Who won the race?

Assignment

Gopal
Ronit
Mohit
Abbas
Sailesh

- A** Ronit
- B** Gopal
- C** Mohit
- D** Abbas

[MCQ]



#Q. In a photograph Shyam is to the left of Madan. Mary is to the right of George, Karim is in between Shyam and Mary. Who is at the corner?

Assignment

George Mary Karim Shyam Madan

A Shyam

B Mary

C George

D Karim

Shyam Karim Madan
George Mary

[MCQ]



#Q. Raju and Manoj are ranked 14 and 15 respectively from the top in a class of 30 students. What will be their respective ranks from the bottom.

Assignment

$$\begin{aligned} \text{Raju} &= 30 - 14 + 1 \\ &= 17^{\text{th}} \end{aligned}$$

$$\begin{aligned} \text{Manoj} &= 30 - 15 + 1 \\ &= 16^{\text{th}} \end{aligned}$$

A 15th and 16th

B 16th and 15th

C 17th and 16th

D 18th and 17th

[MCQ]



#Q. P, Q, R, S, T and U are six students pursuing their Bachelor degree in six different subjects i.e. English, History, Philosophy, Physics, Statistics and Mathematics. Two of them stay in Hostel, two in Paying guest and remaining two at their Home.

- {1} R does not stay as Paying guest and studies Philosophy.
- {2} The students studying Statistics and History do not stay as Paying Guest.
- {3} T studies Mathematics and S studies Physics.
- {4} U and S stay in Hostel.
- {5} T stays as Paying Guest and Q stays at Home.



[MCQ]



#Q. Who studies English?

A

R

B

S

C

T

D

None of these

#Q. Which of the following combinations of subject and place of stay is not correct?

A

English-Hostel

B

Mathematics-Paying guest

C

Philosophy-Home

D

Physics-Hostel

[MCQ]

#Q. Which of the following pairs of students stay at home?

- ☐ A PQ
 ☒ B QR
 ☐ C RS
 ☐ D None of these

#Q. Which subject does Q study?

- ☐ A History
 ☒ B History or Statistics
 ☐ C Statistics
 ☐ D None of these

#Q. Which of the following pairs of students stay one each at Hostel and at Home?

- ☐ A PQ
 ☐ B QR
 ☒ C RS
 ☐ D ST

- {1} R does not stay as Paying guest and studies Philosophy.
- {2} The students studying Statistics and History do not stay as Paying Guest.
- {3} T studies Mathematics and S studies Physics.
- {4} U and S stay in Hostel.
- {5} T stays as Paying Guest and Q stays at Home.

~~Host~~ ~~stat~~ ~~2 PG~~ ~~2 Home~~ ~~2 Hostel~~

Accom

		ENG	HIST	PHIL	PHY	STAT	MATH
PG	P	✓	X	X	X	X	X
Home	Q	X	?	X	X		X
PG Home	R	X	X	✓	X	X	X
Host	S	X	X	X	✓	X	X
PG	T	X	X	X	X	X	✓
Host	U	X		X	X		X

[MCQ]

Q = 0

2 Reporter



#Q. P, Q, R, S, T and U are travelling in a bus. There are two Reporters, two Technicians, one Photographer and one Writer in the group. The Photographer 'P' is married to 'S', who is a Reporter. The Writer is married to Q, who is of the same profession as that of U. P, Q, R, S are two married couples and nobody in that group has same profession. U is brother of R.

Rep
S

Rep
T

Tech
Q

Tech
U

Phot
P

Writer
R

P ~ S

Q ~ R
U ← Writer ~ Q



[MCQ]



#Q. Which of the following is pair of Technicians?

A

PT

B

QU

C

RS

D

SU

#Q. How is R related to U?

A

Brother

B

Sibling

*Harish
Rosh*

C

Sister

D

Uncle

#Q. Which of the following is pair of husbands?

A

QP

B

QS

C

PR

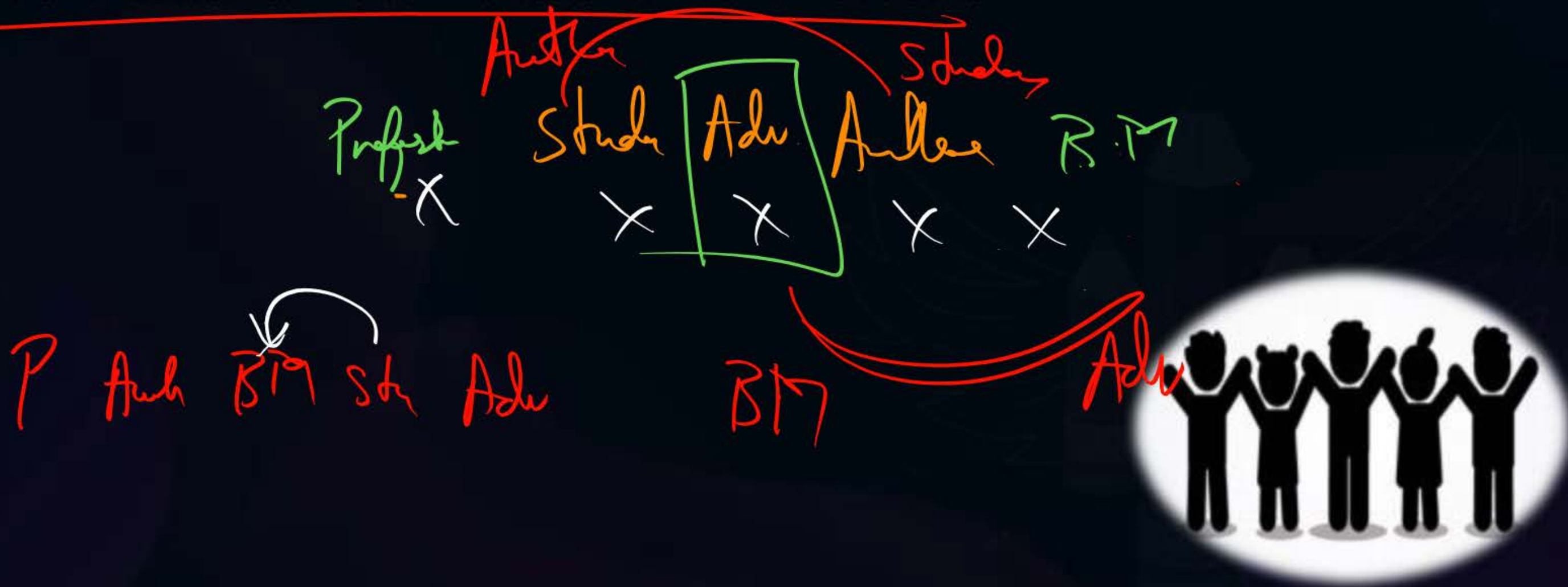
D

Can't be determined

[MCQ]



#Q. Five person are standing in a queue. One of the two persons at the extreme end is a Professor and the other is a Businessman. An advocate is standing to the right of a Student. An Author is to the left of the Businessman. The Student is between the Professor and the Advocate.



[MCQ]



#Q. Who is in the middle of the queue?

Adv

[MCQ]



#Q. If Advocate and the Businessman exchange their positions, also the Author and the Student, then who will be standing to the left of the student?

Business Plan

[MCQ]

E/F → Physics



#Q. There are six teachers A, B, C, D, E and F in a school. Each of the teachers teaches two subjects, one compulsory subject and other optional subject. D's optional subject was History while three others have it as compulsory subject. E and F have Physics as one of their subjects. F's compulsory subject is Mathematics which is an optional subject of both C and E. History and English are A's subjects but in terms of compulsory and optional subjects, they are just reverse of those of D's. Chemistry is an optional subject of only one of them. The only female teacher in the school has English as her compulsory subject.



[MCQ]



#Q. What is C's compulsory subject?

History

3 comp
Hist

Female

	Comp	Optional
A	Hist	English
B	Hist	Chem
C	Hist	Maths
D	English	Hist
E	<u>Physics</u>	<u>Maths</u>
F	<u>Maths</u>	<u>Physics</u>

[MCQ]



#Q. Who is a female member in the group?

D

[MCQ]



#Q. Disregarding which is the compulsory which is the optional subject, who has same two subject combination as F?

F

[MCQ]



#Q. Five persons P, Q, R, S and T belongs to five different cities Jabalpur, Bhopal, Hyderabad, Raipur and Delhi. They are invited to deliver a seminar on different subject Viz., Chemistry, Physics, Mathematics, History and Economics but not necessarily in the same order.

P who belongs to Bhopal gives seminar on Economics. The person who gives seminar on Physics belongs to Jabalpur. T does not give seminar on Chemistry or History but belongs to Hyderabad. S does not belongs to Raipur but gives seminar on Chemistry and History is the option of R.

Q1. Who belongs to Raipur?

Q2. Physics seminar will be given by?

Q3. T gives seminar on?

Q4. S belongs to which city?

Q5. Who belongs to Jabalpur?

Assignment

[MCQ]



- #Q. On a shelf are placed six volumes side by side labeled A, B, C, D, E and F. Three volumes B, C and E have green covers while the other volumes have yellow covers. A, D and F are new volumes while the rest are old volumes. A, C and D are law reports, while the rest are Gazetteers.

[MCQ]



#Q. Which volume is new, yellow covered and a Gazetteer?

Assignment

A

E

B

D

C

C

D

A

[MCQ]



#Q. Which two volumes are old Gazetteers?

Assignment

A

E and F

B

D and B

C

C

D

F

[MCQ]



#Q. Which is green covered, old and a law report volume?

Assignment

A

E

B

D

C

F

D

C

[MCQ]



#Q. Prashant Arora has three children – Sangeeta, Vimal and Ashish. Ashish married Monika, the eldest daughter of Mr. and Mrs. Roy. The Roys married their youngest daughter to the eldest son of Mr. and Mrs. Sharma, and they had two children name Amit and Shashi. The Roys have two more children, Roshan and Vandana, both elder to Veena. Sameer and Ajay are sons of Ashish and Monika. Rashmi is the daughter of Amit.

Assignment

Q1. What is the surname of Rashmi?

Q2. How is Sameer related to the father of Monika?

Q3. What is the surname of Sameer?

Q4. How is Mrs. Roy related to Ashish?



2 mins Summary



Topic

Problem Solving



THANK - YOU