

Analytical Reasoning – Short Notes

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Part 4 of 5

Introduction Part 4 of 5

Main aap sab k positive feedback ka shukar guzaar hon. Aur isi feedback ki waja say likhta jaraha hon. Part 3 main hum nay dekha tha k Analytical Reasoning k questions ki kitni categories ho sakti hain. Aur un main say hum nay pehli 2 categories ko aik example lay kar explain b kiya tha. In part 4 main mazeed agli aik category ki aik example ko solve karon gay. So, is part main main nay ye discuss kiya hai.

- Suitable Selection Analytical Problems with solved example

Part 5 main main baqi tamam categories ko discuss karon ga. Lekin agay barhnay say pehlay main apko batana chahon ga k Analytical Reasoning Problems ko solve karnay k liye jo concepts main nay part 1 aur part 2 main explain kiye hain apki un par command hona zarori hai. Q k baqi 3 parts main main nay har category k questions ko solve kiya hai aur method main nay pehlay 2 parts main say he use kiye hain. Aur agar apko pehlay 2 parts clear hain to believe me you can almost solve any kind of Analytical Reasoning Problem, but, with one condition aur wo hai PRACTICE. With practice aap is section main maximum score kar saktay hain.

DIFFERENT CATEGORIES OF ANALYTICAL REASONING PROBLEMS

Pehlay main zara apko remind karva don k kal jo main nay different categories k name apko bataye thay wo ye thay.

1. Straight Order
2. Scattered Order
3. Suitable Selections
4. Table Seating Arrangements
 - a. Circular Table Arrangements
 - b. Rectangular Table Arrangements
5. Comparison Problems
6. Networking Problems
7. Matrix Problems
8. Relationship Problems

Aaj hum in may say category number 3 ko discuss karain gay.

3) Suitable Selections

Suitable Selection category k questions main normally 2 ya 3 set diye hotay hain jin k darmayan hamain de gai conditions k hisab say selection karni hoti hai. Yani hamain aik baray group main say selection karni hoti hai. Normally in questions main is tara ki statements hoti hain.

- To form a committee of 6 people you will choose people from the group of teachers, students and parents
- To make a dish you have to choose ingredients from 2 combinations
- To make a football team you have to choose players from 3 different clubs etc . . .

Personally mujay is category k question sab say zayada tricky lagtay hain q k jab aap nay aik combination bananay k liye 3 groups main say selection karni hoti hai to aik choti c mistake say apka sara question galat ho jata hai aur apka dher sara time zaya ho jata hai. Aur ye sab say zayada time taking problems hotay hain. Lekin iska ye matlab nahein k solve nahein hotay. Agar ap initial condition ko thek tara interpret kar lete hain to beshak ye time consuming hai lekin phir b solve lazmi ho jatay hain.

Important Note: Analytical Problems chahay kisi b category k hon agar hum wo tamam basic rules aur precautions ko follow karain jo pehlay 2 parts main explain ki gai hain to ap har type k questions ko easily solve kar lain gay.

Now let us solve one question of Suitable Selection.

Problem Statement – Suitable Selection:

The president of a college wants to make a discipline committee by choosing members from a group of 3 faculty members P, S and R, four administrative members T, U, V and W and 3 students X, Y and Z according to conditions given below,

- i) The committee will consist of seven members only
- ii) There must be at least as many faculty members on the committee as there are students
- iii) Number of students may be zero
- iv) P and Z cannot be selected together
- v) T is selected, If and only if U is selected
- vi) If V is selected then W will also be selected

Questions 10 to 12:

10 – Which of the following must be true of the committee?

- A) Number of students cannot be greater than number of Administrators
- B) T & W both cannot be selected together
- C) All three faculty members cannot be selected in committee
- D) T & U must be selected
- E) V & W must be selected

11 – If exactly two faculty members and exactly two students are included in committee then which of the following must be true?

- A) Z is not selected
- B) W is selected
- C) X is selected

D) Y is selected

E) S is selected

12 – If both V and W are selected for the committee, then which of the following must be true?

A) Neither X nor W is selected

B) Neither X nor Y is selected

C) Both X and T are selected

D) Both Y and U are selected

E) V & X or V & Y is selected

Solution

Main nay kaha tha na k ye question bohat tricky hotay hain a bap nay b dekh liya hoga k 3 different groups day diye hain aur un main say hum nay suitable selection karni hai. Ab zara pehlay hum initial conditions ko summarize kar lete hain

i) No. of Members in Committee = 7

Teno groups ko members ko mila kar total 10 members bantay hain jin main say pehli condition k mutabiq hum sirf 7 log select kar saktay hain.

ii) No. of Faculty Member \geq No. of Students

Yani committee main kam az kam itnay faculty member lazmi hon gay jitney student hai. Aur Faculty member student say zayada b ho saktay hain.

iii) No. of students ≥ 0

Is condition main kaha gaya tha k student MAY BE ZERO. Yani zero ho saktay hain lekin iska ye hargiz matlab nahein hai k zero he hon gay.

iv) $P \neq Z$

Yani P aur Z ekathay kaam nahein kar saktay

v) $T \equiv U$

If and only if ka matlab hai k agar T hoga to U b hoga aur agar U hoga to T be hoga. Yani dono ekathay he select hon gay

vi) $V \supset W$

Ab main zara in tamam initial conditions ki representation ko aik he jaga par ekatha likh deta hon

- i) No. of Members in Committee = 7
- ii) No. of Faculty Member \geq No. of Students
- iii) No. of students ≥ 0
- iv) $P \neq Z$
- v) $T \equiv U$
- vi) $V \supset W$

Ab hum ye dekhain gay k kaya hum initial conditions ko use kartay hoye further conclusions nikaal saktay hain ya nahein. Kher muj say to koi further conclusion nahein nikla. But again it doesn't mean k koi b nahein nikal saktay . . .

Answers

10 – A

11 – B

12 – B

Explanations

Question – 10

Which of the following must be true of the committee?

- A) Number of students cannot be greater than number of Administrators
- B) T & W both cannot be selected together
- C) All three faculty members cannot be selected in committee
- D) T & U must be selected

E) V & W must be selected

Explanatory Answer

MUST BE TRUE wala question so you know very well that what we are looking for.

Option A: True, q k as per initial condition no iv, P aur Z kabi ekathay nahein aa saktay aur phir as per initial condition no. ii, committee main kam az kam itnay faculty members to honay chahiye jitney students hon. Is logic say committee main maximum 2 student select kiye ja saktay hain. Aur 2 students hain to phir faculty member kam az kam aur zayada say zayada 3 hon gay. Aur q k total group members 7 hain to administrators b kam say kam 2 aur zayada say zayada 3 hon gay. To ye confirm hai k number of student zayda ho he nahein saktay number of administrative say.

Option B: May be, T aur W ki koi initial condition nahein de gai hai so ye dono ho b saktay hain aur nahein b

Option C: May be, Again 3 faculty b ho saktay hain aur 2 say b group ban sakta hai.

Option D: False, Dono ko select kiye bagair b group create ho sakta hai

Option E: False, Dono ko select kiye bagair b group create ho sakta hai.

So, the correct answer is Option A

Question – 11

If exactly two faculty members and exactly two students are included in committee then which of the following must be true?

- A) Z in not selected
- B) W is selected
- C) X is selected
- D) Y is selected
- E) S is selected

Explanatory Answer

Extra condition say ye pata chalta hai k group main 2 faculty members aur 2 student hon gay. Iska matlab hai k baqi 3 log Administration main say hon gay. Again question “Must be True” ka hai. Now let us check our options

Option A: May be, q k sirf 2 students lene hain to Z ko liya b ja sakta hai aur nahein b.

Option B: True, hamain extra condition say pata chalta hai k Administration say 3 log hon gay. To T & U dono lazmi ayein gay. Aur V ko hum nahein lay saktay q k V liye to W b lena paray ga aur 3 sy zayada hum lay nahein saktay. Lekin agar hum W lain to as per initial condition no. iv V ko lena lazmi nahein hai so 3rd Administrator will always be W.

Option C: May be, q k sirf 2 students lene hain to X ko liya b ja sakta hai aur nahein b.

Option D: May be, again sirf 2 students lene hain to Y ko liya b ja sakta hai aur nahein b.

Option E: May be, q k sirf 2 Faculty Member lene hain to S ko liya b ja sakta hai aur nahein b.

So, the correct answer option is B

Question – 12

If both V and W are selected for the committee, then which of the following must be true?

- A) Neither X nor W is selected
- B) Neither X nor Y is selected
- C) Both X and T are selected
- D) Both Y and U are selected
- E) V & X or V & Y is selected

Explanatory Answer

Again extra condition with Must be True question. Possible arrangement is given below. Let us check our options

Possible Arrangement V Z W S R T U

Option A: False, q k V select kiya gaya hai to phir as per initial condition no iv hamain W ko b har baar select karna paray ga.

Option B: True, q k agar V select ho hai to W b hoga. Aur agar Z select ho hai to kam az kam 1 faculty member lazmi select ho ga. Is tara total 4 members ban jatay hain. Ab 3 reh gaye hain. Agar hum air aur student X ya Y lete hain to hamain aik aur faculty member b lena paray ga. Is tara 6 ho jayein gay. Phir 7th member ya T lena paray ga ya U. Jab k dono separate nahein aa saktay. Is liye hum 2nd student nahein lain gay.

Option C: False, q k oper Option B main hum nay clear kar diya hai k hum sirf 1 he student lain gay aur wo b jo extra condition main mention hai. Yani Z. To phir X to aa he nai sakta.

Option D: False, q k oper Option B main hum nay clear kar diya hai k hum sirf 1 he student lain gay aur wo b jo extra condition main mention hai. Yani Z. To phir Y to aa he nai sakta.

Option E: False, q k oper Option B main hum nay clear kar diya hai k hum sirf 1 he student lain gay aur wo b jo extra condition main mention hai. Yani Z. To phir X ya Y to aa he nai sakta.

So, our correct answer is option B.

Important Note: Meri aap sab say request hai k main techniques first 2 parts main explain kar de gai hain aur 3 categories ki examples b discuss kar de gai hain. Final part main baqi categories ki sirf 1, 1 example discuss ki gai hai. Aap bajaye final part ka wait karnay k apni practice jari rakhiye ga.

THE END