Puzzle test for SBI PO Mains, IBPS PO Mains and RBI Grade B Exams.

PT Set No 164

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

Six students namely, Aniruddh, Nishith, Darshit, Indrajit, Lakshit and Jayesh are studying in same school and are from different places namely Chennai, Madurai, Tirunelveli, Trichy, Coimbatore and Nagercoil but not necessarily in the same order. All of them got different ranks in annual exam from 1 to 6 but not necessarily in the same order. All of them purchase dresses for Diwali festival and the price ranges from Rs. 200 to Rs.450 in consecutive multiples of Rs.50 but not necessarily in the same order.

Nishith got 2nd rank in annual exam. Aniruddh is from Nagercoil. The sum of the price of the dresses purchased by Aniruddh and Indrajit is equal to the sum of the price of dresses purchased by Nishith and Lakshit. The price of the dress purchased by Indrajit is higher than the price of the dress purchased by Nishith and Lakshit individually. The sum of the price of dresses purchased by Aniruddh and Indrajit is either Rs.550 or Rs.600. The student who purchased dress for highest amount is from Trichy. The student who got 1st rank in annual exam is from Madurai. Neither Lakshit nor the one who purchased dress for Rs.350 is from Madurai. The student who purchased dress for highest amount gets 4th rank in annual exam. The student who got 5th rank purchased dress for higher amount than the student who got 6th rank and 3rd rank individually. The student who got 6th rank in annual exam is from Coimbatore. The student who got 5th rank purchased dress for lesser amount than the one who is from Madurai. The student who got 5th rank is not from Chennai. The one who is from Tirunelveli did not purchase dress for Rs.350. Darshit is not from Tirunelveli.

.

1. **How much amount is spent by the student, who is from Tirunelveli for purchasing dress?**

A. Rs.200   B. Rs.250   C. Rs.300   D. Rs.400   E. Can't be determined

2. **Nishith belongs to which among the following places?**

A. Nagercoil   B. Chennai   C. Coimbatore   D. irunelveli   E. Trichy

3. **Which of the following ranks was obtained by the student, who purchased the dress for the least amount?**

A. 5th B. 6th C. 2nd D. 3rd E. Can't be determined

4. **How many students purchased dress for an amount higher than the one who got 6th rank in annual exam?**

A. One   B. Two   C. Three   D. Four   E. Five

5. **Who among the following students belongs to Coimbatore?**

A. Lakshit   B. Indrajit   C. Nishith   D. Jayesh   E. Can't be determined

Correct Answers:

1	2	3	4	5
C	B	D	D	A

Common explanation :

References
Nishith got 2nd rank in annual exam.

Aniruddh is from Nagercoil.

Darshit is not from Tirunelveli.

Neither Lakshit nor the one who purchased dress for Rs.350 is from Madurai.

All of them are purchase dresses for Diwali festival and the price ranges from Rs. 200 to Rs.450 in consecutive multiples of Rs.50 but not necessarily in the same order.

The sum of the price of dresses purchased by Aniruddh and Indrajit is either Rs.550 or Rs.600.

The sum of the price of dresses purchased by Aniruddh and Indrajit is equal to the sum of the prices of dress purchased by Nishith and Lakshit.

The price of the dress purchased by Indrajit is higher than the price of the dress purchased by Nishith and Lakshit individually.

Inferences
From above statements,

- o First 4 statements are directly given. Lakshit is not from Madurai.

- o The possible price for dresses are Rs.200, Rs.250, Rs.300, Rs.350, Rs.400 and Rs.450 (consecutive multiples of Rs.50)

- o The sum of the prices of dress purchased by Aniruddh and Indrajit is either Rs.550 or Rs.600. There are four possibilities among given amounts like (Rs.250 + Rs.300 = Rs.550), (Rs.200 + Rs.400 = Rs.600), (Rs.250 + Rs.350 = Rs.600) and (Rs.200 + Rs.350 = Rs.550)

- o Given, **[Aniruddh + Indrajit] = [Nishith + Lakshit] [Condition-1]** i.e. price of dress equal.

- o From last reference point, it is clearly understood that,

Indrajit > Nishith and Indrajit > Lakshit [Condition-2]

- o From above conditions we get two cases as follows,

Case: 1: Aniruddh = Rs.200 and Indrajit = Rs.350 & then Sum = Rs.200 + Rs.350 = Rs.550

Therefore, Nishith = Rs.250 or Rs.300 & Lakshit = Rs.300 or Rs.250

& then Sum = Rs.300 + Rs.250 = Rs.550

Case: 2: Aniruddh = Rs.200 and Indrajit = Rs.400 & then Sum = Rs.200 + Rs.400 = Rs.600

Therefore, Nishith = Rs.250 or Rs.350 & Lakshit = Rs.350 or Rs.250

& then Sum = Rs.250 + Rs.350 = Rs.600

Note: In both cases, condition 1 & 2 gets satisfied.

By using above information, we get the two following cases as shown below,

Case: 1				
Student	**Place**	**Dress (Rs)**	**Rank**	**Hints**
Aniruddh	Nagercoil	200		
Nishith		250/300	2nd	
Darshit				~~Tirunelveli~~
Indrajit		350		~~Madurai~~
Lakshit		300/250		~~Madurai~~
Jayesh				

Case: 2				
Student	**Place**	**Dress (Rs)**	**Rank**	**Hints**
Aniruddh	Nagercoil	200		
Nishith		250/350	2nd	~~Madurai~~ if NIshit = 350
Darshit				~~Tirunelveli~~
Indrajit		400		
Lakshit		350/250		~~Madurai~~
Jayesh				

References

The student who purchased dress for highest amount gets 4th rank in annual exam.
The student who purchased dress for highest amount is from Trichy.

Inferences

From above statements,

- From Case: 1, either Darshit or Jayesh purchased dress for highest amount (Rs.450) and gets 4th rank in annual exam and he is from Trichy. So we get two sub cases i.e. if Darshit paid Rs.450 and then Jayesh paid Rs.400 or vice versa.

Case: 1				
Student	**Place**	**Dress (Rs)**	**Rank**	**Hints**
Aniruddh	Nagercoil	200		
Nishith		250/300	2nd	
Darshit	Trichy	450	4th	~~Tirunelveli~~
Indrajit		350		~~Madurai~~
Lakshit		300/250		~~Madurai~~

Jayesh		400	

Case: 1-A				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200		
Nishith		250/300	2nd	
Darshit		400		~~Tirunelveli~~
Indrajit		350		~~Madurai~~
Lakshit		300/250		~~Madurai~~
Jayesh	Trichy	450	4th	

o From Case: 2, either Darshit or Jayesh purchased dress for highest amount (Rs.450) and gets 4th rank in annual exam and from Trichy. So we get two sub cases i.e. if Darshit paid Rs.450 and then Jayesh paid Rs.300 or vice versa.

Case: 2				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200		
Nishith		250/350	2nd	~~Madurai~~ if NIshit = 350
Darshit	Trichy	450	4th	~~Tirunelveli~~
Indrajit		400		
Lakshit		350/250		~~Madurai~~
Jayesh		300		

Case: 2-A				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200		
Nishith		250/350	2nd	~~Madurai~~ if NIshit = 350
Darshit		300		~~Tirunelveli~~
Indrajit		400		
Lakshit		350/250		~~Madurai~~
Jayesh	Trichy	450	4th	

References

Neither Lakshit nor the one who purchased dress for Rs.350 is from Madurai.

The student who got 1st rank in annual exam is from Madurai.

The student who got 5th rank purchased dress for higher amount than the student who got 6th rank and 3rd rank individually.

The student who got 5th rank purchased dress for lesser amount than the one who is from Madurai.

The student who got 6th rank in annual exam is from Coimbatore.
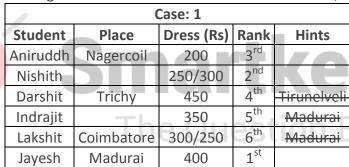
Inferences

From above statements,

- Case: 1 & 1-A, Indrajit purchased dress for Rs.350. Therefore he is not from Madurai.
- The student who got 1st rank in annual exam is from Madurai. Here, Jayesh got 1st Rank and he is from Madurai in Case: 1 & Darshit got 1st Rank and he is from Madurai in Case: 1-A.
- Given condition, **Student, 5th Rank > Student, 6th Rank [Dress price]**

Student, 5th Rank > Student, 3rd Rank [Dress price]
Student, 5th Rank< one who is from Madurai [Dress price]

- As per case: 1 & 1-A table, Indrajit gets 5th rank in annual exam in both cases and also it satisfied with 3 conditions.
- The student who got 6th rank in annual exam is from Coimbatore. Here Lakshit gets 6th rank and he is from Coimbatore in both cases (1 & 1-A), with this information, Aniruddh gets 3rd rank.

By using above information we get the case: 1 & case: 1-A as shown in table,

Case: 1				
Student	**Place**	**Dress (Rs)**	**Rank**	**Hints**
Aniruddh	Nagercoil	200	3rd	
Nishith		250/300	2nd	
Darshit	Trichy	450	4th	~~Tirunelveli~~
Indrajit		350	5th	~~Madurai~~
Lakshit	Coimbatore	300/250	6th	~~Madurai~~
Jayesh	Madurai	400	1st	

Case: 1-A				
Student	**Place**	**Dress (Rs)**	**Rank**	**Hints**
Aniruddh	Nagercoil	200	3rd	
Nishith		250/300	2nd	
Darshit	Madurai	400	1st	~~Tirunelveli~~
Indrajit		350	5th	~~Madurai~~
Lakshit	Coimbatore	300/250	6th	~~Madurai~~
Jayesh	Trichy	450	4th	

From above statements,
- Case: 2 & 2-A, the student who got 1st rank in annual exam is from Madurai. Here we get two possibilities in each case as shown in table.
- Case: 2 & 2-A, the student who got 5th rank purchased dress for higher amount than the student who got 6th rank and 3rd rank individually.
- Given condition, **Student, 5th Rank > Student, 6th Rank [Dress price]**
Student, 5th Rank > Student, 3rd Rank [Dress price]
Student, 5th Rank< one who is from Madurai [Dress price]
- Now, with respect to the above 3 conditions, Case: 2 & 2-A (Possibility-2) gets eliminated as it violates the condition.

- In Case: 2 [Possibility-1], either Lakshit or Jayesh gets 5th or 6th rank and it can be finalized by other statements.
- The student who got 6th rank in annual exam is from Coimbatore.
- In Case: 2-A [Possibility-1], either Darshit or Lakshit gets 5th or 6th rank & it can be finalized by other statements.

Case: 2 [Possibility-1] (Indrajit is from Madurai)				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200	3rd	
Nishith		250/350	2nd	~~Madurai~~
Darshit	Trichy	450	4th	~~Tirunelveli~~
Indrajit	Madurai	400	1st	
Lakshit		350/250	5th/6th	~~Madurai~~
Jayesh		300	6th/5th	

Case: 2 [Possibility-2] [Eliminated] (5th rank holder's amount <Madurai)				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200	3rd	
Nishith		250/350	2nd	~~Madurai~~ if NIshit = 350
Darshit	Trichy	450	4th	~~Tirunelveli~~
Indrajit		400	5th	
Lakshit	Coimbatore	350/250	6th	~~Madurai~~
Jayesh	Madurai	300	1st	

Case: 2-A [Possibility-1]				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200	3rd	
Nishith		250/350	2nd	
Darshit		300	5th/6th	~~Tirunelveli~~
Indrajit	Madurai	400	1st	
Lakshit		350/250	6th/5th	~~Madurai~~
Jayesh	Trichy	450	4th	

Case: 2-A [Possibility-2] [Eliminated] (5th rank holder's amount <Madurai)				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200	3rd	
Nishith		250/350	2nd	
Darshit	Madurai	300	1st	~~Tirunelveli~~
Indrajit		400	5th	
Lakshit	Coimbatore	350/250	6th	~~Madurai~~
Jayesh	Trichy	450	4th	

Note: Total we have 4 cases.

References

The student who got 5th rank is not from Chennai.

The one who is from Tirunelveli did not purchase dress for Rs.350.

The student who got 6th rank in annual exam is from Coimbatore.

Inferences

From above statements,

- o Case: 1 Indrajit (5th rank & Rs.350 purchased) is not from Chennai and Tirunelveli. Therefore this case gets eliminated.

Student	Place	Dress (Rs)	Rank	Hints
	Case: 1 [Eliminated]			
	(No place/city left for Indrajit)			
Aniruddh	Nagercoil	200	3rd	
Nishith		250/300	2nd	
Darshit	Trichy	450	4th	~~Tirunelveli~~
Indrajit	~~Chennai/Tirunelveli~~	350	5th	~~Madurai~~
Lakshit	Coimbatore	300/250	6th	~~Madurai~~
Jayesh	Madurai	400	1st	

- o Case: 1-A: Indrajit (5th rank & Rs.350 purchased) is not from Chennai and Tirunelveli. Therefore this case gets eliminated.

Student	Place	Dress (Rs)	Rank	Hints
	Case: 1-A [Eliminated]			
	(No place/city left for Indrajit)			
Aniruddh	Nagercoil	200	3rd	
Nishith		250/300	2nd	
Darshit	Madurai	400	1st	~~Tirunelveli~~
Indrajit	~~Chennai/Tirunelveli~~	350	5th	~~Madurai~~
Lakshit	Coimbatore	300/250	6th	~~Madurai~~
Jayesh	Trichy	450	4th	

- o Case: 2[Possibility-1]-I Lakshit (5th rank & Rs.350 purchased) is not from Chennai and Tirunelveli. Therefore this case gets eliminated.

Student	Place	Dress (Rs)	Rank	Hints
	Case: 2 [Possibility-1]-I If Nishith = 250 [Eliminated]			
	(No place/city left for Lakshit)			
Aniruddh	Nagercoil	200	3rd	
Nishith		250	2nd	
Darshit	Trichy	450	4th	~~Tirunelveli~~
Indrajit	Madurai	400	1st	
Lakshit	~~Chennai/Tirunelveli~~	350	5th	~~Madurai~~
Jayesh		300	6th	

- Case: 2[Possibility-1]-II Jayesh gets 5th rank is not from Chennai and Nishith purchased dress for Rs.350 and Nishith is not from Tirunelveli. Lakshit who got 6th rank in annual exam and he is from Coimbatore. Finally Jayesh is from Tirunelveli and Nishith is from Chennai.

Thus we get the completed case with all the above conditions gets satisfied.

Case: 2 [Possibility-1]-II If Nishith = 350				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200	3rd	
Nishith	Chennai	350	2nd	~~Tirunelveli~~
Darshit	Trichy	450	4th	~~Tirunelveli~~
Indrajit	Madurai	400	1st	
Lakshit	Coimbatore	250	6th	~~Madurai~~
Jayesh	Tirunelveli	300	5th	~~Chennai~~

- Case: 2-A [Possibility-1]-I Lakshit (5th rank & Rs.350 purchased) is not from Chennai and Tirunelveli. Therefore this case gets eliminated.

Case: 2-A [Possibility-1]-I [Eliminated] (No city left fot Lakshit)				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200	3rd	
Nishith	Chennai	250	2nd	
Darshit	Coimbatore	300	6th	~~Tirunelveli~~
Indrajit	Madurai	400	1st	
Lakshit	~~Chennai/Tirunelveli~~	350	5th	~~Madurai~~
Jayesh	Trichy	450	4th	

- Case: 2-A [Possibility-1]-II Darshit gets 5th rank and he is not from Chennai and Tirunelveli. Also Nishith (Rs.350 purchased) is not from Tirunelveli. Therefore this case gets eliminated.

Case: 2-A [Possibility-1]-II-[Eliminated] (No city left fot Darshit)				
Student	Place	Dress (Rs)	Rank	Hints
Aniruddh	Nagercoil	200	3rd	
Nishith	Chennai	350	2nd	~~Tirunelveli~~
Darshit	~~Chennai/ Tirunelveli~~	300	5th	~~Tirunelveli~~
Indrajit	Madurai	400	1st	
Lakshit	Coimbatore	250	6th	~~Madurai~~
Jayesh	Trichy	450	4th	

.

All the conditions get satisfied with only Case-2[Possibility-1]-II When NIshith spends 350.

Case: 2 [Possibility-1]-II			
Student	Place	Dress (Rs)	Rank
Aniruddh	Nagercoil	200	3rd
Nishith	Chennai	350	2nd
Darshit	Trichy	450	4th
Indrajit	Madurai	400	1st

Lakshit	Coimbatore	250	6th
Jayesh	Tirunelveli	300	5th

Explanations:

1. The following common explanation, we get "Jayesh-Tirunelveli-Rs.300".

Hence, option C is correct.

2. The following common explanation, we get **"Nishith-Chennai".**

Hence, option B is correct.

3. The following common explanation, we get "Aniruddh-Rs.200 (least amount)-3rd rank".

Hence, option D is correct.

4. The following common explanation, we get **"Four students".**

6th rank-Lakshit-Rs.250 (for purchasing dress)

Total 4 students purchased higher than Rs.250 like Rs.300, Rs.350, Rs.400 & Rs.450.

Hence, option D is correct.

5. The following common explanation, we get "Lakshit-Coimbatore".

Hence, option A is correct.