# **MBA PIONEER 2024**

# **Data Interpretation & Logical Reasoning**

# **DPP: 01**

# DILR Set Group - 1

# Directions (1-5) Read the following passage and answer the given questions.

Amal, Bimal, Chandan, Deepesh, Ekta, Faizal, Gaurav, Hitesh are eight members of the society. Each member is living in a different flat which are numbered from 1 to 8 not necessary in the same order. This society is designed in such a way where there are four rows with two flats in each row.

If it is also known as

- 1. Flats 1 and 2 are in the top rows from left to right respectively and 7, 8 are in the bottom row from left to right respectively.
- 2. Flat 5 and 6 are second from the bottom from right to left, and 3 and 4 are in the remaining row from right to left respectively.
- 3. Hitesh's flat is in the bottom and Amal is living in flat 1.
- 4. Gaurav is living in flat number 8.
- 5. Ekta's flat is just above Bimal's flat which is just above Chandan's flat.
- 6. Faizal is living above Deepesh's flat.

(B) 3

- Q1 Faizal lives in flat no.?
  - (A) 4
  - (C) 6 (D) 5
- **Q2** Who lives in flat no. 3?
  - (A) Amal
- (B) Bimal
- (C) Ekta
- (D) Chandan
- **Q3** Who lives in flat no. 7?
  - (A) Deepesh
- (B) Faizal
- (C) Hitesh
- (D) Gaurav
- **Q4** Which is the correct combination?
  - (A) (Faizal, Gaurav)
  - (B) (Amal, Bimal)

- (C) (Deepesh, Chandan)
- (D) (Chandan, Gaurav)
- **Q5** Which is the correct statement?
  - (A) Amal lives in flat 1
  - (B) Bimal lives in flat 6
  - (C) Chandan lives in flat 5
  - (D) Both (a) and (c)

# Directions (6-10) Read the following passage and answer the given questions.

As gaming industry is booming the top 5 players in India are Mortal, Scout, SNAX, MAMBA and Goldy. They are playing different games and own different cars. List of games are Pubg, Bgmi, Valorant, GTA5, Freefire and list of cars are, Ferrari, Audi, Mercedes, BMW and Fortuner. It is also known:

- (a) Mortal plays one of Pubg or Bami and own Ferrari.
- (b) Scout own Audi and plays one of Pubg and Bami.
- (c) The one who plays GTA5 own BMW.
- (d) There is only one player whose first letter of Car and the game he plays is same.
- (e) SNAX plays Valorant and Goldy is not playing GTA5.
- **Q6** Who owns BMW?
  - (A) Scout
- (B) SNAX
- (C) Mamba
- (D) Mortal
- **Q7** Who own Fortuner?
  - (A) Scout
- (B) Goldy
- (C) Mortal
- (D) SNAX
- **Q8** Free fire is played by whom?
  - (A) Scout
- (B) SNAX
- (C) Mortal
- (D) Goldy

- **Q9** Which is the correct combination?
  - (A) Scout-Ferrari
  - (B) SNAX-Mercedes
  - (C) Goldy-BMW
  - (D) Mortal-Fortuner
- **Q10** If Scout is playing Pubg then who plays Bgmi?
  - (A) Mortal (B) SNAX (C) Scout (D) Goldy

# Directions (11-15) Read the following passage and answer the given questions.

A few boxes were stacked one over another which were numbered 1 onwards such that the lowest box was numbered 1 and so on. Each box contained a different type of cereal and each box was colored differently. The exact information of only a few boxes was known.

- Jowar and Bajra were kept at a gap of 3 boxes
- Blue and red boxes were kept consecutively
- Not more than 5 boxes were there between the green box and the box with baira
- The number of boxes in the stack was less than 22 but more than 10
- Only one box was kept above the white box
- Box number of the green box was 4 times that of the box number of the red box
- Green and pink boxes were kept at a gap of 7 boxes
- Wheat was above the pink box with a gap of one box in between them
- Number of boxes below the blue box was twice the number of boxes above the box with jowar
- Box number of bajra was thrice as that of the box number of millet
- Millet was kept at a gap of 2 from the pink box
- Rice was just above millet
- There were 8 boxes between the Jowar and the Golden box. Jowar was not kept in the white box.

- Q11 How many boxes were stacked in the row?
  - (A) 22 (B) 21 (C) 20 (D) 19
- **Q12** How many boxes were kept above the golden box?
  - (A) Nine (B) Ten (C) Eleven (D) Twelve
- Q13 Which of the following cereal/cereals was/were kept somewhere below the golden box?
  - I. Wheat
  - II. Bajra
  - III. Millet
  - (A) Only I
    (C) Both I and II
    (D) Only III
- **Q14** How many boxes were between Green and Bajra?
  - (A) One (B) Two (C) Three (D) Zero
- Q15 Which is the correct combination?
  - (A) Bajra and Green
  - (B) Millet and Red
  - (C) Wheat and Golden
  - (D) Rice and Blue

# Directions (16-20) Read the following passage and answer the given questions.

Seven students - Aman, Arnav, Aaron, Aarav, Arnold, Anand and Amber - start playing basketball on one of the seven days of the week. Whenever a player puts the ball in the basket, it is counted as one. Each student puts in a different number of baskets and no two students put in the same number of baskets. Each student plays on a different day of the week - starting from Monday and ending on Sunday - and no two students play on the same day and no student plays on more than one day. The number of baskets made by the players are 12, 27, 20, 24, 40, 31 and 55.

- 1. There are two players playing between Arnav and Amber.
- 2. Anand puts in more baskets than Aarav.
- 3. The total baskets put in on Saturday and Wednesday is equal to the number of baskets put in on Friday.
- 4. Anand plays on a day someday after the student who puts in 12 baskets.
- 5. The difference between the number of baskets put in on Monday and Friday is a multiple of 14.
- 6. Aman plays only after Friday.
- 7. 24 baskets were put in on Wednesday.
- 8. Three students play on the days between Anand and Aarav.
- 9. Two students play between Anand and the student who puts in 12 baskets.
- LO. Aaron does not put in the least number of baskets.
- L1. Arnav plays on the day immediately before the student that puts in 20 baskets.
- L2. The student that is scheduled to play immediately after the one that puts in 24 baskets manages to put in more than 24 baskets (but not an odd number).
- **Q16** Which of the following statements is true?
  - (A) There is a two-day difference between the days on which Anand and Aarav play.
  - (B) The difference between the number of baskets put in by Aman and Aaron is equal to the number of baskets put in by Aaron.
  - (C) Arnold puts in 19 baskets less than Arnav.
  - (D) Arnav plays immediately after Aman.
- Q17 What is the difference between the number of baskets put in by Anand and the student playing on Sunday?
  - (A) 35

(B) 17

(C) 15

(D) 20

Q18

- Which of the following combinations is correct?
- (A) Monday Anand 55
- (B) 31 Arnav Wednesday
- (C) Aarav Monday 24
- (D) Aman 20 Sunday
- Q19 Which of the following students plays immediately after the student who puts in 12 baskets?
  - (A) Arnold

(B) Aarav

(C) Anand

- (D) Amber
- **Q20** Which of the following puts in a prime number of baskets?
  - (A) The student playing on Wednesday
  - (B) Anand
  - (C) The student playing immediately after Arnav
  - (D) None of these

# Directions (21-25) Read the following passage and answer the given questions.

There are seven different ice cream boxes named as A1, A2, A3, A4, A5, A6, and A7 each of which contains a different flavour Strawberry, Black walnut, Choco chip, Hot cinnamon, Vanila, Dairy queen, and American nuts. Each of seven friends Aarav, Adrika, Reyansh, Ruhi, Rudra, Reeti and Aamya choose different flavour of ice-cream among the given but not necessarily in the same order.

- (i) Aarav chooses the flavour, which is in A5.
- (ii) Dairy queen is not in box A6. Ruhi chooses Hot cinnamon.
- (iii) Choco chip is in A1, but neither Reeti nor Ruhi chooses that.
- (iv) Aamya and Adrika choose Vanila and Dairy queen which is in the box A2 and A6.
- (v) Aarav and Rudra choose Black walnut and American nuts, but neither choose the flavour which is either in box A3 or A4.
- (vi) If Rudra chooses Choco chip, then Choco chip is not in A1 box.

- (vii) A5 contains either American nuts or Black walnut.
- Q21 Which friend chooses Choco chip flavour?
  - (A) Aarav
  - (B) Reyansh
  - (C) Reeti
  - (D) Cannot be determined
- Q22 Which ice-cream flavour Rudra Chooses?
  - (A) Vanila
  - (B) American nuts
  - (C) Black walnut
  - (D) Cannot be determined
- **Q23** American nuts is in which box?
  - (A) A3
  - (B) A5
  - (C) A7
  - (D) Can't be determined
- **Q24** If strawberry is in A4 box then which flavour of ice-cream is in box A3?
  - (A) Vanila
  - (B) Hot Cinnamon
  - (C) Dairy queen
  - (D) None of the above
- Q25 If Aamya chooses Dairy queen, then Adrika chooses\_\_\_\_?
  - (A) Vanila
  - (B) Choco chip
  - (C) Strawberry
  - (D) Can't be determined

# Directions (26-30) Read the following passage and answer the given questions.

National Geographic TV channel airs nine daily shows - NGA, NGB, NGC, NGD, NGE, NGF, NGG, NGH and NGI - 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. is neither immediately preceded nor immediately followed by NGG or NGI. The News show ends at 8 p.m.
- (ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH 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 NGG.
- (iv) NGE is immediately followed by NGA and neither of them is a Family show or a News show.
- (v) Exactly two shows are aired between NGA and NGG.
- (vi) NGI is neither immediately preceded nor immediately followed by NGB.
- (vii) Exactly four shows are aired between the Family show and the Horror show.
- Q26 NGC is a
  - (A) Family show
  - (B) Horror show
  - (C) Crime show
  - (D) Either (a) or (b)
- **Q27** Mythology show starts at
  - (A) 9.30 p.m.
  - (B) 10 p.m.
  - (C) 11 p.m.
  - (D) Can't be determined
- Q28 The show which starts at 9 p.m. can be
  - (A) NGG, a Comedy show
  - (B) NGI, a history show
  - (C) NGA, a Crime show
  - (D) None of these
- **Q29** If NGA is a crime show and NGI is a history show, then which genre is NGB?
  - (A) Comedy
- (B) Horror Show
- (C) Family
- (D) None of these

**Q30** If NGD is a family show, then which one is a horror show?

(A) NGE

(B) NGC

(C) NGI

(D) None of these



# **Answer Key**

Q1	(A)	
Q2	(B)	
Q3	(C)	
Q4	(C)	
Q5	(D)	
Q6	(C)	
<b>Q</b> 7	(B)	
Q8	(D)	
Q9	(B)	
Q10	(A)	
Q11	(B)	

Q12 (C)

Q13 (D)

(D)

(C)

Q14

Q15

(C) Q16 Q17 (A) Q18 (D) Q19 (D) Q20 (D) Q21 (B) (D) Q22 Q23 (D) Q24 (B) (A) Q25 Q26 (D) Q27 (A) Q28 (C) Q29 (A)

Q30 (B)

# **Hints & Solutions**

# Q1. Text Solution:

By using 1 and 2 we get

	1	2	
	4	3	
	6	5	
	7	8	

By using (3) and (4) we get

1-Amal	2
4	3
6	5
7-Hitesh	8-Gaurav

By using (5) we have the only case

1-Amal	2-Ekta
4-	3-Bimal
6-	5-Chandan
7-Hitesh	8-Gaurav

By using (6) we get

1-Amal	2-Ekta
4-Faizal	3-Bimal
6-Deepesh	5-Chandan
7-Hitesh	8-Gaurav

From the arrangement, Faizal lives in flat no. 4.

#### Q2. Text Solution:

1-Amal	2-Ekta
4-Faizal	3-Bimal
6-Deepesh	5-Chandan
7-Hitesh	8-Gaurav

Bimal lives in flat no. 3.

#### Q3. Text Solution:

1-Amal	2-Ekta
4-Faizal	3-Bimal

6-Deepesh	5-Chandan
7-Hitesh	8-Gaurav

Hitesh lives in flat no. 7.

#### Q4. Text Solution:

1-Amal	2-Ekta
4-Faizal	3-Bimal
6-Deepesh	5-Chandan
7-Hitesh	8-Gaurav

Option (c) will be in the same row. Option (c) is correct.

#### Q5. Text Solution:

1-Amal	2-Ekta
4-Faizal	3-Bimal
6-Deepesh	5-Chandan
7-Hitesh	8-Gaurav

Option (d) will be the correct choice.

# Q6. Text Solution:

By using condition (a) (b) and (e) we get the following direct arrangement:

Players	Games	Cars
Mortal	Bgmi/Pubg	Ferrari
Scout	Pubg/Bgmi	Audi
SNAX	Valorant	
MAMBA		
Goldy		

Now as per condition (d) Car and Game's first letter is same and only possibility we left with is Freefire and Fortuner.

As per the condition (c) the final table will become

Players	Games	Cars
Mortal	Bgmi/Pubg	Ferrari
Scout	Pubg/Bgmi	Audi

SNAX	Valorant	Mercedes
MAMBA	GTA5	BMW
Goldy	Freefire	Fortuner

MAMBA owns BMW.

#### Q7. Text Solution:

Players	Games	Cars
Mortal	Bgmi/Pubg	Ferrari
Scout	Pubg/Bgmi	Audi
SNAX	Valorant	Mercedes
MAMBA	GTA5	BMW
Goldy	Freefire	Fortuner

Goldy owns Fortuner.

#### Q8. Text Solution:

Players	Games	Cars
Mortal	Bgmi/Pubg	Ferrari
Scout	Pubg/Bgmi	Audi
SNAX	Valorant	Mercedes
MAMBA	GTA5	BMW
Goldy	Freefire	Fortuner

Goldy plays Freefire.

#### Q9. Text Solution:

Players	Games	Cars
Mortal	Bgmi/Pubg	Ferrari
Scout	Pubg/Bgmi	Audi
SNAX	Valorant	Mercedes
MAMBA	GTA5	BMW
Goldy	Freefire	Fortuner

SNAX owns Mercedes.

#### Q10. Text Solution:

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Players	Games	Cars
Mortal	Bgmi/Pubg	Ferrari
Scout	Pubg/Bgmi	Audi
SNAX	Valorant	Mercedes
MAMBA	GTA5	BMW
Goldy	Freefire	Fortuner

Mortal is playing Bgmi.

#### Q11. Text Solution:

The number of boxes in the stack was less than 22 but more than 10

- Box number of the green box was 4 times as that of the box number of the red box. Thus, possible combinations will be (1, 4) (2, 8) (3, 12) (4, 16) (5, 20)
- Green and pink boxes were kept at a gap of 7 boxes
- Wheat was above the pink box with a gap of one box in between them
- Millet was kept at a gap of 2 from the pink box
- Rice was just above millet

By using the above conditions there are many possibilities that are mentioned in tabular form in different cases.

The box numbers can be:

• Box number of bajra was thrice as that of the box number of millet. There cannot be boxes of more than 22, hence cases 1, 2, 4, and 6 become invalid.

We are making one more possible case that is Case 3a, this is because of the different possibilities of Millet and Rice.

- Not more than 5 boxes were there between the green box and the box with the bajra. Thus, cases 3 and 3a become invalid.
- Jowar and Bajra were kept at a gap of 3 boxes. Bajra was in box 15, hence jowar can be in box 11 or 19.
- Blue and red boxes were kept consecutively. Blue boxes can be 3 or 5.
- Number of boxes below the blue box was twice as that of the number of boxes above the box with jowar. Blue box can have 2 or 4 boxes below it and thus jowar can have 1 or 2 boxes above it. If jowar is in box 11, then there would be at least 5 boxes above it as the green box is box 16. Thus, the case

becomes invalid. Thus, jowar would be in box 19. Hence there could be 20 or 21 boxes in total

Case 1:		
21		
20		
19	Jowar	
18		
17		
16		Green
15	Bajra	
14		
13		
12		
11		
10	Wheat	
9		
8 7		Pink
7		
6	Rice	
5	Millet	Blue
4		Red
5 4 3 2		
2		
1		

# Case 2:

20		
19	Jowar	
18		
17		
16		Green
15	Bajra	
14		
13		
12		
11		
10	Wheat	

9		
8		Pink
7		
6	Rice	
5	Millet	
4		Red
3		Blue
2		
1		

- Only one box was kept above the white box.
- There were 8 boxes between Jowar and the golden box.

# Case 1:

21		
20		White
19	Jowar	
18		
17		
16		Green
15	Bajra	
14		
13	/	
12		
11		
10	Wheat	Golden
9		
8		Pink
6	Rice	
5	Millet	Blue
4		Red
3		
2		
1		
	19 18 17 16 15 14 13 12 11 10	20   19   Jowar   18   17   16   15   Bajra   14   13   12   11   10   Wheat   9   8   7

# Case 2:

20		
19	Jowar	White

	Green
Bajra	
Wheat	Golden
	Pink
Rice	
Millet	
	Red
	Blue
	Wheat

• Jowar was not kept in the white box. Thus, case 2 is invalid.

The final arrangement is as follows:

21		
20		White
19	Jowar	
18		
17		
16		Green
15	Bajra	
14		_
13		
12		
11		
10	Wheat	Golden
9		
8		Pink
7		
6	Rice	

5	Millet	Blue
4		Red
3		
2		
1		

Hence there are 21 boxes in the stack

# Q12. Text Solution:

The final arrangement is as follows:

21   White   19   Jowar   18	The linar analiger				
19 Jowar  18	21				
18	20		White		
17   Green   15   Bajra   14   13   12   11   10   Wheat Golden   9   8   Pink   7	19	Jowar			
16 Green 15 Bajra 14 13 12 11 10 Wheat Golden 9 8 Pink 7	18				
15 Bajra 14   13   12   11   10   Wheat Golden 9   8   Pink 7	17				
14	16		Green		
13   12   11   10   Wheat Golden   9   8   Pink   7	15	Bajra			
12 11 10 Wheat Golden 9 8 Pink 7	14				
11   10   Wheat Golden   9   8   Pink   7	13				
10 Wheat Golden 9 8 Pink 7	12				
9 Pink 7 Pink	11				
8 Pink 7	10	Wheat	Golden		
7	9				
	8		Pink		
6 Rice   5 Millet Blue   4 Red   3   2   1	7				
5 Millet Blue 4 Red 3 2	6	Rice			
4 Red 3 2 1	5	Millet	Blue		
3 2 1	4		Red		
1	3				
1	2				
	1				

Hence, eleven boxes were kept above the golden box

# Q13. Text Solution:

The final arrangement is as follows:

	_	. •
21		
20		White
19	Jowar	
18		

17		
16		Green
15	Bajra	
14		
13 12		
12		
11		
10	Wheat	Golden
9		
8		Pink
7		
6 5 4 3	Rice	
5	Millet	Blue
4		Red
3		
2		
1		

Among the given cereals only millet was below the golden box.

#### Q14. Text Solution:

The final arrangement is as follows:

21		
20		White
19	Jowar	
18		
17		
16		Green
15	Bajra	
14		
13		
12		
11		
10	Wheat	Golden
9		
8		Pink
8 7 6 5		
6	Rice	
5	Millet	Blue

4	Red
3	
2	
1	

There is no box between green and Bajra.

# Q15. Text Solution:

The final arrangement is as follows:

21		
20		White
19	Jowar	
18		
17		
16		Green
15	Bajra	
14		
13		
12		
11		
10	Wheat	Golden
9		
8		Pink
7		
6	Rice	
5	Millet	Blue
6 5 4 3		Red
3		
2		
1		

Wheat and Golden are representing the same box.

# Q16. Text Solution:

Given from point 7, no. of baskets on Wednesday is 24. Thus, we start from there.

From point 12, we can conclude that 40 baskets were put in on Thursday.

Next, from point 3, the numbers greater than 24 (Wednesday) and not used up are are 27, 31, and 55. Thus, the only two numbers which

satisfy point 3 are 31 and 55 for Saturday and Friday respectively.

From point 5, we can conclude that 27 baskets were put in on Monday.

Thus, we have the following arrangement so far:

Monday	27
Tuesday	
Wednesday	24
Thursday	40
Friday	55
Saturday	31
Sunday	

Point 4 states that Anand plays on a day after the student who puts in 12 baskets thus 12 baskets cannot be put in on Sunday.

So, the final arrangement of the days of the week with the number of baskets looks like the following:

Monday	27
Tuesday	12
Wednesday	24
Thursday	40
Friday	55
Saturday	31
Sunday	20

Now, from point 11, Arnav plays on the day immediately before the student putting in 20 baskets. Thus, Arnav plays on Saturday.

From point 9, Anand comes to play on Friday.

From point 8, Aarav can only fit in on Monday.

Thus, Aarav comes to play on Monday.

From point 6, Aman comes to play on Sunday.

From point 1, Amber plays on Wednesday.

Point 10 states that Aaron does not put in the least number of baskets which implies that Aaron plays on Thursday and Arnold plays on Tuesday.

The complete final schedule of the students along with their respective number of baskets is as follows:

Monday	27	Aarav
Tuesday	12	Arnold
Wednesday	24	Amber
Thursday	40	Aaron
Friday	55	Anand
Saturday	31	Arnav
Sunday	20	Aman

From the table option (c) will be the correct choice.

#### Q17. Text Solution:

Monday	27	Aarav
Tuesday	12	Arnold
Wednesday	24	Amber
Thursday	40	Aaron
Friday	55	Anand
Saturday	31	Arnav
Sunday	20	Aman

Required difference is 55 - 20 = 35

### Q18. Text Solution:

Monday	27	Aarav
Tuesday	12	Arnold
Wednesday	24	Amber
Thursday	40	Aaron
Friday	55	Anand
Saturday	31	Arnav
Sunday	20	Aman

From the table option d will be the correct choice

#### Q19. Text Solution:

Monday	27	Aarav
Tuesday	12	Arnold
Wednesday	24	Amber

Thursday	40	Aaron
Friday	55	Anand
Saturday	31	Arnav
Sunday	20	Aman

From the table option (d) will be the correct choice.

#### Q20. Text Solution:

Monday	27	Aarav
Tuesday	12	Arnold
Wednesday	24	Amber
Thursday	40	Aaron
Friday	55	Anand
Saturday	31	Arnav
Sunday	20	Aman

From the table option d will be the correct choice.

#### Q21. Text Solution:

The given direct information can be tabulated as below: -

Boxes	Flavours		Friends
A1	Choco chip	•	×Reeti ×Ruhi
A2	1		
A3			×Rudra
A4			×Rudra
A5			Aarav
A6	× Dairy que	en	
A7			

From the condition (iv) and the above information, Dairy queen is in A2 box and Vanila is in A6 box. Aamya and Adrika choose Vanila and Dairy queen in any order.

From (vi) and the above information, Rudra chooses the flavour which is in A7. Hence, Reyansh chooses Choco chip and Ruhi and Reeti choose the flavour which is in A3 and A4 in any order.

From (v), (vii), and the above information, A5 and A7 contains American nuts and Black walnut in any order. Reeti chooses Strawberry.

Boxes	Flavours	Friends	
A1 Choco chip		Reyansh	
A2	Dairy queen	Adrika/Aamya	
	Hot		
A3	Cinnamon/Str	Ruhi/Reeti	
	awberry		
Δ4	Strawberry/Ho	Dooti /Dubi	
A4	t Cinnamon	Reeti/Ruhi	
	American		
A5	nuts/Black	Aarav	
	walnut		
A6 Vanila		Aamya/Adrika	
	Black		
A7	walnut/Americ	Rudra	
	an nuts		

From the table one can say that Reyansh Chooses Choco Chip.

#### Q22. Text Solution:

It can be American Nuts or Walnuts and in option both is given so one cannot determine it uniquely.

Hence option d.

Hence Option b.

#### Q23. Text Solution:

It cannot be uniquely determined in which box American nuts is present.

Option D is correct.

#### Q24. Text Solution:

If Strawberry Ice cream is in Box A4 then Hot cinnamon is in A3.

Hence Option b.

#### Q25. Text Solution:

If Aamya Chooses Dairy Queen, then Adrika Chooses Vanila Ice – cream.

Hence Option a

#### Q26. Text Solution:

For our convenience, we construct a table and fill it according to the details mentioned above, (i) The Reality show starts at 8.30 p.m. and is not immediately preceded by NGG or NGI. The

News show ends at 8 p.m. (which means it starts at 7:30)

Show start time	Genre	Show
7		
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		
10:30		
11		

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

artar / pirm		
Show start time	Genre	Show
7		NGF
7:30	News	-/-
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30		
11		

(iii) The Horror show starts exactly 3 hours after the end of the Science show and neither of them is NGG. So, only one possibility of their time schedule is

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG

l		
111		
1 1		
1	I	

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

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG
11		

(vi) NGI is neither immediately preceded nor immediately followed by NGB.

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11		

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

Case 1 -

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

Case 2 -

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

- (iv) NGE is immediately followed by NGA and neither of them is a Family show or a News show.
- ⇒ Considering case 1, two cases further arise, Case 1a

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

#### Case 1b

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

(v) Exactly two shows are aired between NGA and NGG.

So, case 1a becomes,

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

But there is no place left for show NGI. Hence, case 1a is eliminated.

Considering case 1b,

(v) Exactly two shows are aired between NGA and NGG.

But we see from table that this scenario is not possible:

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

Hence, case 1b is also eliminated.

- $\Rightarrow$  Now, considering case 2
- (iv) NGE is immediately followed by NGA and neither of them is a Family show or a News show.

Here, again two cases arise,

Case 2a

Ī	Show start time	Genre	Show

7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	NGE
11		NGA

#### Case 2b

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

First, considering case 2a

(v) Exactly two shows are aired between NGA and NGG.

But we see from table that this scenario is not possible:

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	NGE
11		NGA

Hence, case 2a is eliminated. Now, considering case 2b,

(v) Exactly two shows are aired between NGA and NGG.

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

Thus, only one place is left for show NGI, and the table becomes as follows:

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	
11		NGI

NGC can be either family show or horror show. Hence, option d.

#### Q27. Text Solution:

For our convenience, we construct a table and fill it according to the details mentioned above, (i) The Reality show starts at 8.30 p.m. and is not immediately preceded by NGG or NGI. The News show ends at 8 p.m. (which means it starts at 7:30)

G.C 7.00)		
Show start time	Genre	Show
7		
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI

9:30	
10	
10:30	
11	

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

arter 7 p.m.		
Show start time	Genre	Show
7		NGF
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30		
11		

(iii) The Horror show starts exactly 3 hours after the end of the Science show and neither of them is NGG. So, only one possibility of their time schedule is

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG
11		

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

Show start time	Genre	Show
7	Science	NGF

7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG
11		

(vi) NGI is neither immediately preceded nor immediately followed by NGB.

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11		

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

Case 1 -

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

Case 2 -

Show start time	Genre	Show
7	Science	NGF
7:30	News	

8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

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

⇒ Considering case 1, two cases further arise, Case 1a

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

#### Case 1b

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

(v) Exactly two shows are aired between NGA and NGG.

So, case 1a becomes,

Show start time	Genre	Show
7	Science	NGF

7:30	News	NGG
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

But there is no place left for show NGI. Hence, case 1a is eliminated.

Considering case 1b,

(v) Exactly two shows are aired between NGA and NGG.

But we see from table that this scenario is not possible:

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

Hence, case 1b is also eliminated.

 $\Rightarrow$  Now, considering case 2

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

Here, again two cases arise,

#### Case 2a

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI

9:30	Mythology	NGH
10		NGB
10:30	Horror	NGE
11		NGA

#### Case 2b

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

In, both cases, mythology show starts at 9:30. Hence, option a.

# Q28. Text Solution:

For our convenience, we construct a table and fill it according to the details mentioned above,

(i) The Reality show starts at 8.30 p.m. and is not immediately preceded by NGG or NGI. The News show ends at 8 p.m. (which means it starts at 7:30)

at 7.50)		
Show start time	Genre	Show
7		
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		
10:30		
11		

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

Show start time	Genre	Show
7		NGF
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30		
11		

(iii) The Horror show starts exactly 3 hours after the end of the Science show and neither of them is NGG. So, only one possibility of their time schedule is

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG
11		

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

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG
11		

(vi) NGI is neither immediately preceded nor immediately followed by NGB.

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11		

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

#### Case 1-

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

#### Case 2 -

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

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

⇒ Considering case 1, two cases further arise, Case 1a

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

### Case 1b

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

(v) Exactly two shows are aired between NGA and NGG.

So, case 1a becomes,

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

But there is no place left for show NGI. Hence, case 1a is eliminated.

Considering case 1b,

(v) Exactly two shows are aired between NGA and NGG.

But we see from table that this scenario is not possible:

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

Hence, case 1b is also eliminated.

- $\Rightarrow$  Now, considering case 2
- (iv) NGE is immediately followed by NGA and neither of them is a Family show or a News show.

Here, again two cases arise,

# Case 2a

Genre	Show
Science	NGF
News	
Family	~NGG/NGI
Reality	
	~NGG/NGI
Mythology	NGH
	NGB
Horror	NGE
	NGA
	Science News Family Reality Mythology

#### Case 2b

Show start time	Genre	Show
7	Science	NGF

7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

First, considering case 2a

(v) Exactly two shows are aired between NGA and NGG.

But we see from table that this scenario is not possible:

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	NGE
11		NGA

Hence, case 2a is eliminated.

Now, considering case 2b,

(v) Exactly two shows are aired between NGA and NGG.

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

Thus, only one place is left for show NGI, and the table becomes as follows:

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	
11		NGI

Thus, NGA which could be a crime show can start at 9 p.m.

# Q29. Text Solution:

For our convenience, we construct a table and fill it according to the details mentioned above, (i) The Reality show starts at 8.30 p.m. and is not immediately preceded by NGG or NGI. The News show ends at 8 p.m. (which means it starts at 7:30)

•		
Show start time	Genre	Show
7		
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		
10:30		
11		

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

Show start time	Genre	Show
7		NGF
7:30	News	
8		~NGG/NGI

8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30		
11		

(iii) The Horror show starts exactly 3 hours after the end of the Science show and neither of them is NGG. So, only one possibility of their time schedule is

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG
11		

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

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG
11		

(vi) NGI is neither immediately preceded nor immediately followed by NGB.

Show start time	Genre	Show
7	Science	NGF

7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11		

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

Case 1-

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

Case 2 -

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

- (iv) NGE is immediately followed by NGA and neither of them is a Family show or a News show.
- ⇒ Considering case 1, two cases further arise,

# Case 1a

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

#### Case 1b

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

(v) Exactly two shows are aired between NGA and NGG.

So, case 1a becomes,

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

But there is no place left for show NGI. Hence, case 1a is eliminated.

Considering case 1b,

(v) Exactly two shows are aired between NGA and NGG.

But we see from table that this scenario is not possible:

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

Hence, case 1b is also eliminated.

- $\Rightarrow$  Now, considering case 2
- (iv) NGE is immediately followed by NGA and neither of them is a Family show or a News show.

Here, again two cases arise,

Case 2a

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	NGE
11		NGA

### Case 2b

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE

9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

First, considering case 2a

(v) Exactly two shows are aired between NGA and NGG.

But we see from table that this scenario is not possible:

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	NGE
11		NGA

Hence, case 2a is eliminated.

Now, considering case 2b,

(v) Exactly two shows are aired between NGA and NGG.

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

Thus, only one place is left for show NGI, and the table becomes as follows:

Show start time	Genre	Show
-----------------	-------	------

7	Science	NGF
7:30	News	NGG
8	Family	
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	
11		NGI

Thus, NGB can only be a comedy show. Hence, option a.

### Q30. Text Solution:

For our convenience, we construct a table and fill it according to the details mentioned above, (i) The Reality show starts at 8.30 p.m. and is not immediately preceded by NGG or NGI. The News show ends at 8 p.m. (which means it starts at 7:30)

Show start time	Genre	Show
7		
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		
10:30		
11		

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

1	_	
Show start time	Genre	Show
7		NGF
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		

10	NGB
10:30	
11	

(iii) The Horror show starts exactly 3 hours after the end of the Science show and neither of them is NGG. So, only one possibility of their time schedule is

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8		~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG
11		

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

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		
10		NGB
10:30	Horror	~NGG
11		

(vi) NGI is neither immediately preceded nor immediately followed by NGB.

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI

8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11		

(ii) NGF starts at 7 p.m. and NGB ends at 10.30 p.m. NGH is the Mythology show which starts after 9 p.m.

#### Case 1 -

CG3C 1		
Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

# Case 2 -

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

- (iv) NGE is immediately followed by NGA and neither of them is a Family show or a News show.
- ⇒ Considering case 1, two cases further arise, Case 1a

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

#### Case 1b

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

(v) Exactly two shows are aired between NGA and NGG.

So, case 1a becomes,

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30		~NGI
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

But there is no place left for show NGI. Hence, case 1a is eliminated. Considering case 1b,

(v) Exactly two shows are aired between NGA and NGG.

But we see from table that this scenario is not possible:

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		NGE
9:30		NGA
10		NGB
10:30	Horror	~NGG/NGI
11	Mythology	NGH

Hence, case 1b is also eliminated.

- $\Rightarrow$  Now, considering case 2
- (iv) NGE is immediately followed by NGA and neither of them is a Family show or a News show.

Here, again two cases arise,

# Case 2a

Genre	Show
Science	NGF
News	
Family	~NGG/NGI
Reality	
	~NGG/NGI
Mythology	NGH
	NGB
Horror	NGE
	NGA
	Science News Family Reality Mythology

# Case 2b

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	NGE

9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

First, considering case 2a

(v) Exactly two shows are aired between NGA and NGG.

But we see from table that this scenario is not possible:

Show start time	Genre	Show
7	Science	NGF
7:30	News	
8	Family	~NGG/NGI
8:30	Reality	
9		~NGG/NGI
9:30	Mythology	NGH
10		NGB
10:30	Horror	NGE
11		NGA

Hence, case 2a is eliminated.

Now, considering case 2b,

(v) Exactly two shows are aired between NGA and NGG.

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	~NGG/NGI
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	~NGG/NGI
11		

Thus, only one place is left for show NGI, and the table becomes as follows:

Show start time	Genre	Show
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7	Science	NGF
7:30	News	NGG
8	Family	
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	
11		NGI

Now, filling the given information from the question we get the table as

Show start time	Genre	Show
7	Science	NGF
7:30	News	NGG
8	Family	NGD
8:30	Reality	NGE
9		NGA
9:30	Mythology	NGH
10		NGB
10:30	Horror	
11		NGI

Thus, only NGC can be the horror show. Hence, option b.

