Learning Objectives

- Introduction
- Type of Puzzle Test

Introduction

This section comprises of questions put in the form of puzzles involving a certain number of items, be it persons or things. The candidate is required to analyse the given information.

Type of Puzzle Test

The question on puzzle test may be of three types.
    i. Classification type question
    ii. Seating or arrangement problems
    iii. Family based problems

Classification Type Question

Classification question plays an important role in question answering. Features are the key to obtain an accurate question classifier. The question classification is by no means trivial: Simply using question wh-words cannot achieve satisfactory results. The difficulty lies in classifying the what and which type questions.

Example:

Read the following information carefully and answer the questions given below:
Five cities A, B, C, D and E are famous for their lovely garden, fancy jewellery, educational institute, blue pottery and scents but not in the same order.
    (i) A and C are neither educational institutes nor have gardens.
    (ii) B and E are not famous for jewellery or pottery.
    (iii) Scents and jewellery have nothing to do with A.
    (iv) D is not famous for educational institutes.

- Which one of the following cities is famous for gardens?
  (a) A   (b) C
  (c) D   (d) B
  (e) E
  Answer: (d)

- Blue pottery is available in which of the following cities?
  (a) A   (b) C
  (c) E   (d) B
  (e) D
  Answer: (a)

- City E is famous for which of the following?
  (a) Jewellery   (b) Educational institutes
  (c) Blue pottery   (d) Scent
  (e) Garden
  Answer: (b)

  Explanation:

These questions can be solved easily with the help of a truth table. Truth table is an arrangement of the components given in a matrix form with one component in row and other component in column, incur question, components given are city and the feature for which each city is famous.

The first arrange the components in matrix form with cities in column and features in row.

From (i), cross the possibility of garden and educational institute in front of cities A and C.

Also the possibility of jewellery and pottery is ruled out or cities B and E, from information

(ii). similarly, city A is crossed for scent and jewellery as given in information (iii).

After using first three information in the table, we see that only block uncrossed in front of city A is the one related with blue pottery. So we know from here that city A is famous for blue pottery. In this block mark (v) and cross the row and column of this block because one city is famous only for one feature.

City	Garden	Jwell.	Edu.	Pottery	Scent
A	✗	✗	✗	✓	✗
B	✓	✗	✗	✗	✗
C	✗	✓	✗	✗	✗
D	✗	✗	✗	✗	✓
E	✗	✗	✓	✗	✗

Using information (iv) in the table we know that city B is famous for garden and city C for jewellery. Cross row and column of each symbol (✓) obtained each time. This helps to determine one to one matching.

Last information helps us to know that city E is famous for educational institutes and city D for scent. The final order of matching of cities and their features is as under-

Cities	A	B	C	D	E
Feature	Blue pottery	Garden	Jewellery	Scent	Education

One the basis of the table, all the questions can be answered:

I. Cities B is famous for garden, hence correct answer is (D)

II. City A is famous for educational institute, hence correct answer is (A)

III. City E is famous for educational institute, hence correct answer is (B)

Commonly Asked Questions

Read the following information carefully and answer the questions that follow:

(i) Five friends P, Q, R, S and T travelled to five different cities of Chennai, Kolkata, Delhi, Bangalore and Hyderabad by different modes of transport of Bus, Train, Aeroplane, Car and Boat from Mumbai.

(ii) The person who travelled to Delhi did not travel by boat

(iii) R went to Bangalore by car and Q went to Kolkata by aerospace

(iv) S travelled by boat whereas T travelled by train.

(v) Mumbai is not connected by but to Delhi and Chennai.

- Which one of the following combinations of person and is not?
  (a) P - Bus   (b) Q - Aeroplane
  (c) R - Car   (d) S - Boat
  (e) T - Aeroplane
  Answer: (e)

- Which one of the following is for S?
  (a) Delhi - Bus   (b) Chennai - Bus
  (c) Chennai - Boat   (d) Data inadequate
  (e) None of these
  Answer (a)

- Which one of the following combinations of place and mode is not correct?
  (a) Delhi-Bus   (b) Kolkata - Aeroplane
  (c) Bangalore - Car   (d) Chennai - Boat
  (e) Hyderabad - Bus
  Answer (a)

- The person travelling to Delhi went by which one of the following modes?
  (a) Bus   (b) Train
  (c) Aeroplane   (d) Car
  (e) Boat
  Answer (b)

- Who among the following travelled to Delhi?
  (a) R   (b) S
  (c) T   (d) Data inadequate
  (e) None of these
  Answer (c)

Explanation:
The given information can be analyzed as follow:

(A) Mode of Transport: R travels by Car, Q by Aeroplane, S by Boat and T by Train. Now, only P remains. So, P travels by Bus.
(B) Place of Travel: R goes to Bangalore, Q to Kolkata. Now, bus transport is not available for Delhi or Chennai. So, P who travels by Bus goes to Hyderabad. S travels by boat and hence, by (ii), did not go to Delhi. So, goes to Chennai. Now, only T remains. So, T goes to Delhi.

Person	P	Q	R	S	T
Place	Hyderabad	Kolkata	Bangalore	Chennai	Delhi
Mode	Bus	Aeroplane	Car	Boat	Train

1. Clearly, the incorrect combination is T - Aeroplane. So, the answer is (E).
2. Clearly, the correct combination for S is Chennai - Boat. So, the answer is (C).
3. Clearly, the incorrect combination is Delhi - Bus. So, the answer is (A).
4. Clearly, T travelled to Delhi by train. So, the answer is (B).
5. Clearly, T travelled to Delhi. So, the answer is (C).

Seating Arrangement

In this type of questions some class regarding seating or placing sequence/linear or circular of same persons or items is given. Read the following information carefully and answer the questions given below:

(i) A, B, C, D, E, F and G are sitting around a circle and are facing the centre.
(ii) G is second to the left of C, who is to the immediate left of F.
(iii) A is third to the left of E.
(iv) B is between D and E.

- Which one of the following is false?
  (a) A is fourth to the right of E.
  (b) G is to the immediate right of D.
  (c) F is third to the right of D.
  (d) B is second to the right of G.
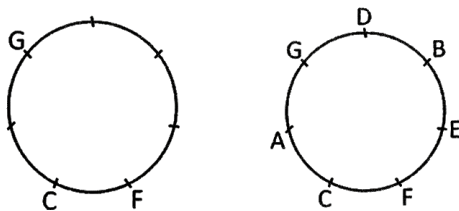 (e) None of these
  Answer: (c)

- Which one of the following is true?
  (a) C is fourth to the left of B.
  (b) A is to the immediate right of G.
  (c) D is second to the left of E.
  (d) B is second to the right of G.
  (e) None of these
  Answer: (b)

- Which one of the following pairs has the first person sitting to the immediate left of the second person?
  (a) BE   (b) CA
  (c) GD   (d) DG
  (e) None of these
  Answer: (d)

- Which of the following has the middle person sitting between the remaining two?
  (a) FCE   (b) EFB
  (c) DEB   (d) GDA
  (e) None of these
  Answer: (e)

- Which of the following is the position of F?
  (a) Fourth to the right of D
  (b) To the Immediate left of C
  (c) Between A and E
  (d) To the Immediate right of A
  (e) None of these
  Answer: (a)

Explanation:

We first of all mark the seven blank positions around a circle.
Now, G is second to the left of C and C is to the Immediate left of F. We mark their positions as shown below.

Also, B is between D and E. Thus, D, B, E sit together and occupy the three consecutive blank positions. Now, only one position remains blank between G and C, and this must be occupied by A. Now, D, B, E may its in any of the positions (D, B, E) or (E, B, D). But A is third to the left of E only when they its in the order (D, B, E). Thus, we mark their positions as shown.

1. Clearly, F is fourth to the right of D. So, (C) is false. Hence, the answer is (C).
2. C is third to the left of B. So, (A) is false. A is to the immediate right of G. So, (B) is true.
   D is second to the right of E. So, (C) is false. B is second to the left of G. So, (D) is false.
   Hence the answer is (B).
3. Clearly, only in the pair D, the first person D sits to the immediate left to the second person G. Hence, the answer is (D).
4. C sits between A and F; F sits between E and C; E sits between B and F; D sits between
   G and B. So, none of the given groups satisfies the given condition.
5. Clearly, F's position is
   (i) fourth to the right of D
   (ii) to the immediate right of C
   (iii) between C and E
   (iv) second to the right of A
   Hence, the answer is (A).

Family Based Problems

This type question includes a relationship among different members of a family, and their types of works, their professions, qualities, dresses, hobbies etc.

Example:

Read the following information carefully and answer the questions given below:

> **(i)** In a family of six persons - P, Q, R, S, T and U - there are three gents and three ladies.
> There are two married couples and two persons are unmarried. Each one of them reads different newspapers, viz. The Times of India, Indian Express, Hindustan Times, Amar Ujala, Navbhart Times and The Hindu.
> **(ii)** T, who reads Indian Express, is mother-in-law of P who is wife of R. S is the father of U and he does not read The Times of India or The Hindu. Q reads Navbharat Times and she is the sister of U who reads Hindustan Times. R does not read The Hindu.

- How many sons does T have?
  (a) One   (b) Two
  (c) Three   (d) Four
  (e) None of these
  Answer (b)

- Who among the following reads The Times of India?
  (a) P   (b) R
  (c) S   (d) Q
  (e) None of these
  Answer: (b)

- Which of the following newspapers is read by P?
  (a) Amar Ujala   (b) The Times of India
  (c) Navbharat Times   (d) The Hindu
  (e) None of these
  Answer: (e)

- How is U related to T?
  (a) Son   (b) Daughter
  (c) Brother   (d) Data inadequate
  (e) None of these
  Answer: (a)

- Which of the following is one of the couples?
  (a) QU   (b) TU
  (c) SQ   (d) ST
  (e) None of these
  (d)

Explanation:

T is mother-in-law of P and P is wife of R. So, R is P's husband and T is mother of R. So, one couple is RP. Since S is father of U, so S is the husband of T So, the other couple is ST.

Since, Q is sister of U, so R, U and Q are children of S and T Since there are 3 gents in all so U is also a male.

Now, Q reads Navbharat Times; U reads Hindustan Times; T reads Indian Express.

Since S does not read The Times of India or The Hindu, so S reads Amar Ujala.

Since R does not read The Hindu, So R reads The Times of India. Clearly, P reads The Tribune.

1. Clearly, T has two sons - R and U. So, the answer is (B).
2. R reads The Times of India. So, the answer is (B).
3. P reads The Tribune. So, the answer is (E).

4. Clearly, U is the son of T So, the answer is (A).
5. The two couples are RP and ST. So, the answer is (D).

Commonly Asked Questions

Directions (Questions 1 to 3): Read the following information carefully and answer the questions ben below:

Ravi and Kunal are good in Hockey and Volleyball. Sachin and Ravi are good in Hockey and iseball. Gaurav and Kunal are good in Cricket and Volleyball. Sachin, Gaurav and Michael are food in Football and Baseball.

- Who is good in Hockey, Cricket and Volleyball?
  (a) Sachin   (b) Kunal
  (c) Ravi   (d) Gaurav
  (e) None of these
  Answer (c)

- Who is good in Baseball, Volleyball and Football?
  (a) Sachin   (b) Kunal
  (c) Gaurav   (d) Ravi
  (e) None of these
  Answer (c)

- Who is good at Baseball, Volleyball and Hockey?
  (a) Sachin   (b) Kunal
  (c) Ravi   (d) Gaurav
  (e) None of these
  Answer (c)

Directions (Questions 4 to 8): Study the following information carefully to answer the given question:

Madan and Rohit are in the same team of hockey. Forth defeated Rohit in badminton but lost to Sachin in tennis. Nitin teams with Sagar in football and with Sachin in hockey. Rohit defeated Sachin in chess. Those who play cricket do not play badminton, volleyball or tennis. Madan and Parth are in opposite teams of basketball. Nitin represents his state in cricket while Sagar does so at the district level. Boys who play chess do not play football. Basketball or volley ball. Madan and Parth are together in the volleyball team. Boys who play football also play hockey.

- Name the boys who do not play football.
  (a) Sachin, Nitin   (b) Rohit, Sagar
  (c) Rohit, Sachin   (d) Rohit, Nitin
  (e) None of these
  Answer (c)

- Who plays both hockey and tennis?
  (a) Sachin   (b) Rohit
  (c) Nitin   (d) Parth
  (e) None of these
  Answer (a)

- Which is the most popular game with this group?
  (a) Cricket   (b) Hockey
  (c) Football   (d) Badminton
  (e) None of these
  Answer (b)

- Who plays the largest number of games?
  (a) Sagar   (b) Rohit
  (c) Parth   (d) Nitin
  (e) None of these

Answer: (c)

- Which boy plays both badminton and hockey?
  (a) Sachin   (b) Rohit
  (c) Nitin   (d) Parth
  (E) None of these
  Answer (b)

Explanation:

Questions 1 to 3. The given information can be analyzed as under:

	Hockey	Volleyball	Baseball	Cricket	Football
Ravi	✓	✓	✓		
Kunal	✓	✓		✓	
Sachin	✓		✓		✓
Gaurav		✓	✓	✓	✓
Michel			✓		✓

1. (b) Kunal is good at Hockey, Cricket and Volleyball,
2. (c) Gaurav is good at Baseball, Cricket, Volleyball and Football.
3. (c) Ravi is good at Baseball, Volleyball and Hockey.

Questions 4 to 8. We mark a (✓) against the games which a boy plays and a (✗) against the games which a boy doesn't play.

	Madan	Rohit	Parth	Sachin	Nitin	Sagar
Hockey	✓	✓		✓	✓	✓
Badminton		✓	✓		✗	✗
Tennis			✓	✓	✗	✗
Chess		✓		✓		
Football		✗		✗	✓	✓
Basketball	✓	✗		✗		
Volleyball	✓	✗		✗		✗
Cricket					✓	✓

4. (c) Rohit and Sachin do not play football.
5. (a) Sachin plays both hockey and tennis.
6. (b) Since hockey is played by the maximum number of student (5) in the group, so hockey is the most popular game.
7. (c) Parth plays the largest number of games i.e. four.
8. (b) Rohit plays both badminton and hockey.