

# **Puzzle**

In banking exams Puzzle questions can be asked in itself or Data Sufficiency.

"puzzle" can be generally classified into the following types of problems:

- 1. Simple problems of categorization
  - 2. Arrangement problems
  - 3. Comparison Problems
  - 4. Blood Relations
  - 5. Blood Relations with professions
  - 6. Conditional selection
  - 7. Miscellaneous problems

### (1) Simple problems of categorization

The most simple type of problems in this lesson falls under this category where you would be supposed to analyse the given data and simply place different items in different categories according to the given information.

**Example (i):** There are six cities A, B, C, D, E and F and they belong to at least one of the types of places i.e. Historical, Industrial and Hill station. B is not an industrial area. C and F belongs to all types of places. E is both industrial and Hill station. A is not a hill station. B and E are not historical places. D is not an industrial city. A and D are not historical cities. A and B are not alike.

Solution:

The given information can be analysed as follows:

	A	В	С	D	Е	F
Historical	х	х	$\sqrt{}$	х	х	$\sqrt{}$
Industrial	$\sqrt{}$	х	$\sqrt{}$	х	$\sqrt{}$	$\sqrt{}$
Hill Stations	х					$\sqrt{}$

Since A and B are not alike and because A is industrial, B cannot be industrial but only a hill station. So, we put a cross for B across industrial.

B and D are neither Historical places nor Industrial centres. So, the answer is (d)

(Here since A is not a hill station, we put a cross under a column and in front of Hill station Row, this would reduce the number of choices for us. (similarly for all the other options)

### (2) Arrangement problems:

In this type of questions, the problems is essentially of arranging a group of people, objects etc. According to the given specifications. Arrangement problems can be of two types (i) Linear arrangement and (ii) Circular Arrangement.

The questions of this type are also referred to as "Seating Arrangement

Example: Six persons A, B, C, D, E and F are seating in two rows, three in each.



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E is not at the end of any row.

D is second to the left of F.

C, the neighbour of E, is sitting diagonally opposite to D.

B is the neighbour of F.

#### **Solutions:**

According to the information given, the sitting arrange of A,B,C,D,E and F is given row-wise

 $A \rightarrow E \rightarrow C$ 

 $D \rightarrow B \rightarrow F$ 

So, the sitting arrangement according to column-wise is

A and D;E and B;C and F

## (3) Problem on Comparison:

In these questions a comparison of different objects or persons have to be made and conclusions have to be arrived on the basis of comparison.

Comparison can be made:

- (i) Comparison of heights
- (ii) Comparison of marks
- (iii) Comparison of age, etc.

You may use the following symbols for comparison:

**Example:** Among four friends A, B, C and D. A is taller than, who is shorter than D. D is not the tallest and A is shorter than D.

**Solutions**: C > D > A > B or

C.

D

Α

В

(Tallest to shortest, from above to below)

### (4) Problems on Blood Relations:

Problems of this type involve analysis of certain blood relations and then inferring on the basis of the given information.



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**Example**: All the six members of a family A, B C, D, E and F are travelling together. B is the son of C but C is not the mother of B. A and C are a married couple. E is the brother of C. D is the daughter of A. F is the brother of B.

#### **Solutions**:

B is the son of C but C is not the mother of B means C is the father of B.

A is married to C means A is the mother of B.

F is the brother of B means F is the son of A and C.

D is the daughter of A means D is the daughter A and C. E is the brother of C who is the father of D.

So, E is the uncle of D.

### (5) Problems on Blood Relations with professions:

These problems are very much similar to the problems on Blood Relations. Only difference is that in these questions another dimension is added. The professions of various family members are also incorporated into the data to make it complex and confusing.

**Example**: There is a group of six persons A, B, C, D, E and F in a family. They are psychologist, Manager, Lawyer, Jeweller, Doctor and Engineer.

- (i) The doctor is the grandfather of F, who is a psychologist
- (ii) The manager, D is married to A.
- (iii) C, the Jeweller, is married to the lawyer.
- (iv) B is the mother of F and E.
- (v) There are two married couples in the family.

#### **Solutions**:

Given F is a psychologist.

B is the mother of F and E is the brother or sister of F.

There are only two married couples in the family. Since, D is married to A, so C, the jeweller, who is married to a lawyer, will be married to B.

Again, the Manager D is married to A means A is the doctor and Grandfather of F and E.

Also, no one else is an Engineer. So, E must be an Engineer.

Clearly, E is an Engineer.

### (6) Problems on conditional selection:

In this type of questions, a group of objects or persons have to be selected from a given longer group, according to some given restrictions.



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**Example**: Five friends P, Q, R, S and T travelled to five different cities of Chennai, Kolkata, Delhi, Bengaluru and Hyderabad by different modes of transport of Bus, Train, Aeroplane, Car and Boat from Mumbai. But not necessary in the same order.

- (a) The person who travelled to Delhi did not travel by Boat.
- (b) R went to Bengaluru by car and Q went to Kolkata by Aeroplane
- (c) S travelled by Boat whereas T travelled by train.
- (d) Mumbai is not connected by Bus to Delhi and Chennai.

#### Answer

Mode for Transport:

R travels by Car, Q by Aeroplane, S by Boat and T by Train

Now only P remains So P travels by Bus

place of Travel:

R goes to Bangalore Q to Calcutta

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 S goes to Chennai

Now only T remains so T goes to Delhi

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

#### (7) Miscellaneous Problems:

Till now we have covered different types of puzzles. But in miscellaneous problems all types are covered.

**Example**: There are five persons P, Q, R, S and T. One is a football, one is a chess player and one is a hockey player. P and S are unmarried ladies and do not participate in any game. None of the ladies plays chess or Football. There is a married couple in which T is the husband. Q is the brother of R and is neither a chess player nor a hockey player.

### Solutions:

Answer: D. P, R, S

Clearly, Q is neither a hockey player nor a chess player. So, he must be a football player and thus cannot be a lady. T is a husband (not a lady) and so must be a chess player. Hence, R must be a hockey player, and therefore she must be a lady and T's wife. So, the information can be summarised as follows:

P -- unmarried lady, does not participate in games.

Q -- brother of R, football player.

R -- hockey player, T's wife.

S -- unmarried lady, does not participate in games.

T -- husband of R, chess player

Here, T and R are married couple. Where, T is husband and R is wife.