

Venn Diagram

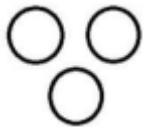
Venn Diagram

Logical Venn diagram shows a relationship between 2-3 categories in the form of pictorial representation. The pictorial representation can be any form of a geometrical figure. It is an illustration of a group of objects that share something in common.

Two common types of question are asked in the exam,

1. Three/four entity diagram – In these kinds of questions, 3 or 4 entity will be given, and we have to identify the diagram that best represents the relationship among the given classes from the given options

- Three types of groups with no common element.



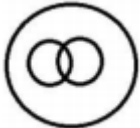
- Three groups, in which two are inter-related and one has no relation with them.



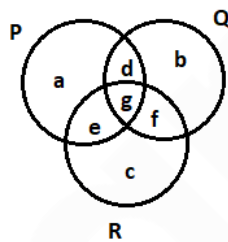
- Series of subgroups one under another.



- Three groups, one main group, two subgroups and both have some common elements



2. Overlapping Geometrical Figures – In these kinds of questions, three or more different or same geometrical figures are overlapped with each other and each geometrical figure represents a certain category or class.



Set P = a, d, e and g.

Set Q = b, d, g and f.

Set R = e, g, f and c.

Both P and Q = d and g

Both Q and R = g and f

Both R and P = e and g

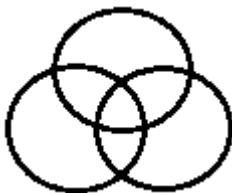
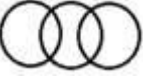
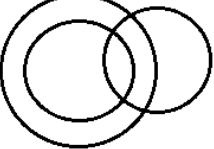
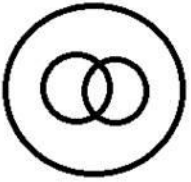
All (P, Q and R) = g

Below we are going to share the types of questions with examples to explain it,

Three or four entity Diagram –

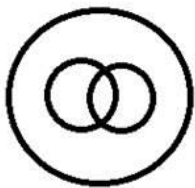
1. Identify the diagram that best represents the relationship among the given classes.

Lady, Doctor, People

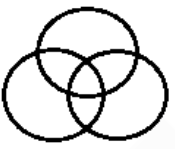

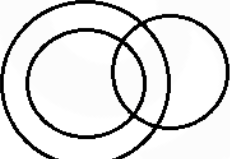

- a. 
- b. 
- c. 
- d. 

Ans. D

Solution - Lady and doctor both are people. Some lady might be doctor, some not. Hence, option(D) is the correct response.

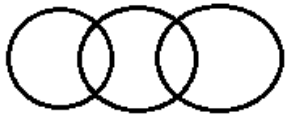


2. Identify the diagram that best represents the relationship among the given classes.
Human beings, University, Hospital

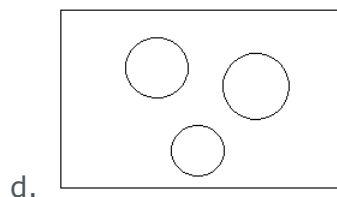
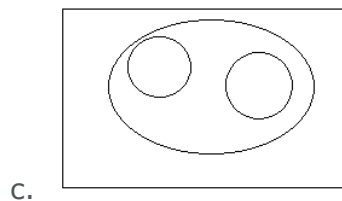
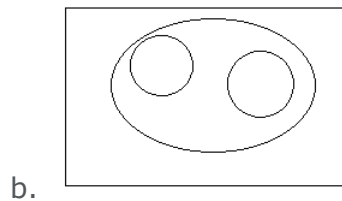
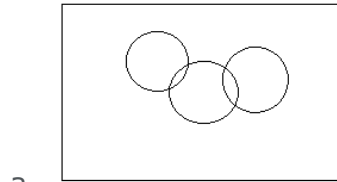
- a. 
- b. 
- c. 
- d. 

Ans. D

Solution - University and Hospital are two different institutions. Human beings work in both places. Hence, option (D) is the correct response.



3. Identify the diagram that best represents the relationship among the given classes.
Android, iOS, Tizen

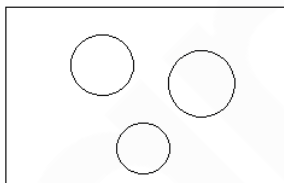


Ans. D

Solution –

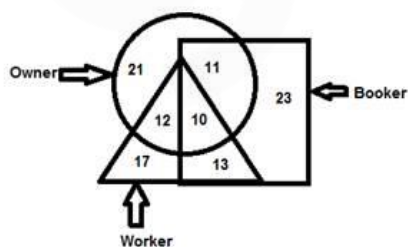
Android, iOS and Tizen are three different mobile operating systems.

Hence, option D is the correct response.



Overlapping Geometrical Figures -

1. In the following Venn Diagram, shows information about the total number of the person who has a different profession.



What is the ratio of Owner and worker but not Booker to all Owner, Worker and Booker?

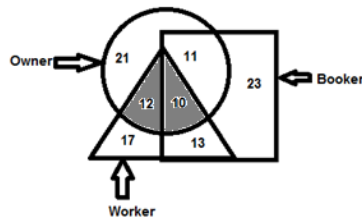
- a. $\frac{3}{7}$
- b. $\frac{5}{6}$
- c. $\frac{5}{12}$

d. 6/5

Ans. D

Solution –

Given that one square represents Booker, one triangle represents Worker and one circle represents the Owner shown in the given figure–



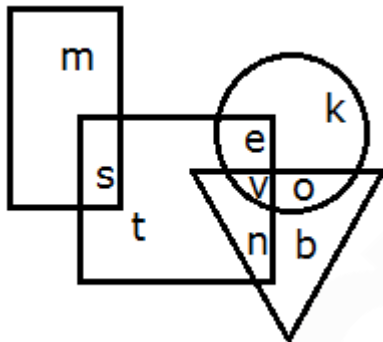
In this question, the shaded parts are the Owner and worker but not Booker and all Owner, Worker and Booker which showed in the shaded part which is 12 and 10 respectively.

The ratio of the Owner and worker but not booker to all Owner, worker and booker = 12/10

On solving we get –

The ratio of the Owner and worker but not booker to all Owner, worker and booker = 6/5
So correct answer is option D.

2. In the following figure, rectangle represents Bankers, circle represents Lawyers, triangle represents Teachers and square represents Indians. Which set of letters represents Indians who are teachers as well as lawyers?



a. t

b. e

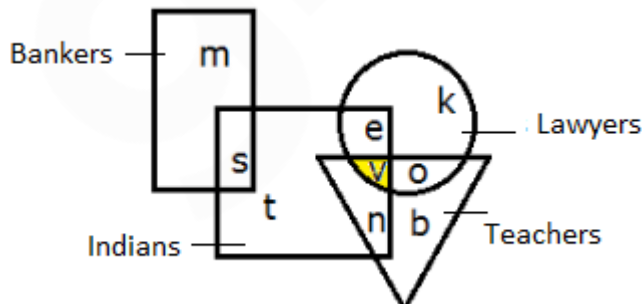
c. n

d. v

Ans. D

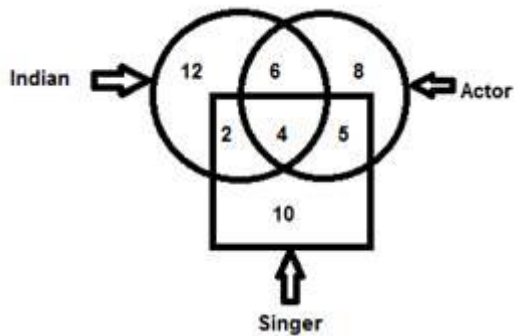
Solution -

Shaded part in the figure below represents Indians who are teachers as well as lawyers.



Hence, the correct option is D.

3. In the following Venn Diagram, shows information about the people who are singer, actor and Indian.



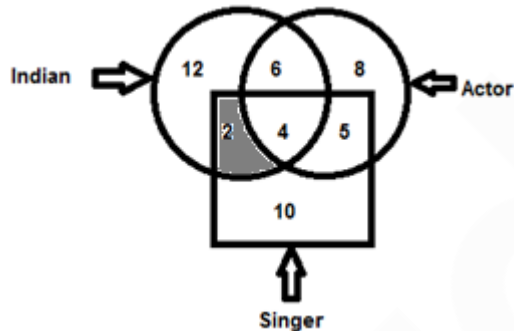
The person who is an Indian singer but not an actor?

- a. 22
- b. 4
- c. 2
- d. 6

Ans. C

Solution –

Given that one circle represents Indian, the second circle represents Actor and one square represents the singer is shown in the given figure



In this question ask the person who is Indian Singer but not Actor which is shown in the shaded part which is 2.

So correct answer is option C.