

1. All papayas are cycles.

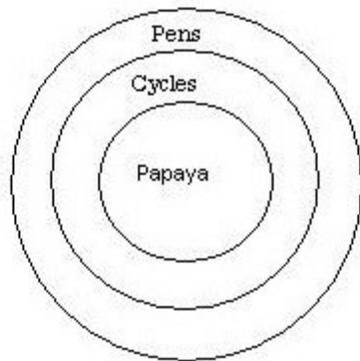
All cycles are pens.

a. All cycles are papayas.

b. All papayas are pens.

c. All pens are cycles.

d. All pens are papayas.



Ans. The correct answer is 'b'.

In the above example, it is given that all papayas are cycles, implying that papayas are a subset of cycles. Hence the circle representing papayas is enclosed within that representing cycles. The same holds good for cycles and pens. Thus, from this we can conclude that the collection of pens is the biggest set, implying that all

papayas are pens, and all cycles are pens. However, all cycles are not papayas, all pens are not papayas and all pens are not cycles.

2. Some girls are funny.

All funny are sweet.

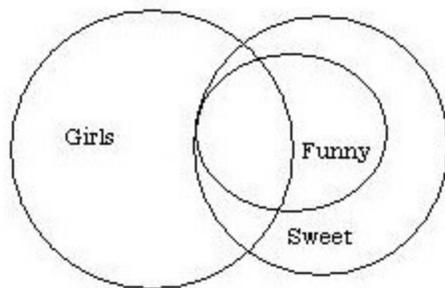
a. All girls are sweet.

b. All sweet are funny.

c. Some girls are sweet.

d. All sweet are not funny.

Ans. The correct answer is 'c'.



Here, it says that some girls are funny. Hence the circle representing girls and that representing funny overlap at some point. Also, all funny are sweet. Hence the circle representing funny is completely enclosed in the

circle representing sweet. Note that consequently, the circle representing funny and that representing girls overlap as well.

Disputing the options, it is clear that all girls are not sweet. Also note that it cannot be conclusively said that all funny are sweet or all funny are NOT sweet. A conclusion on this point cannot be reached with the given information as 'all funny are sweet' can mean that 'funny' is a subset of 'sweet', or that 'funny' and 'sweet' are completely overlapping sets.

3. No bucket is a mug.

No mug is a thug.

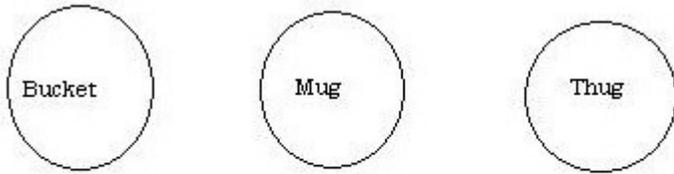
a. Some buckets are mugs.

b. All thugs are mugs.

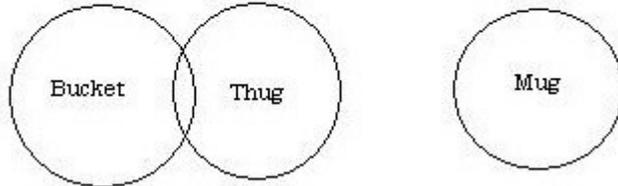
c. No bucket is a thug.

d. No mug is a bucket.

Ans. The correct answer is 'd'.



OR



Here, no bucket is a mug. Hence the intersection between the bucket set and the mug set is a null set, i.e. there is no common point of intersection between the two. Also no mug is a thug. Hence the intersection between these two sets is a null set as well. From these two statements, there are two possible conclusions. That:

- a. the intersection of the bucket set and the thug set is a null set. (As depicted in Fig.1)
- b. there is an overlapping area between the bucket set and the thug set.(As depicted in Fig.2)

However, since neither of the above conclusions can be positively assumed to be true, both have to be taken into consideration.

Disputing the options, we cannot conclusively say that no bucket is a thug. Clearly, all thugs are not mugs, and no bucket is a mug and vice-versa. Hence option 'd' is the correct answer.

4. Some jackfruits are lilies.

No lily is a canoe.

All canoes are oceans.

Conclusions:

a. Some jackfruits are oceans.

b. Some oceans are canoes.

c. Some oceans are jackfruits.

d. Some lilies are jackfruits.

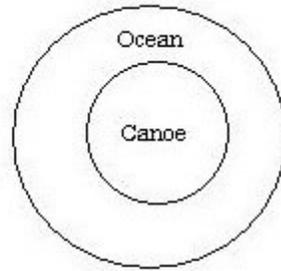
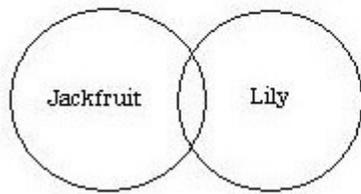
1. Only a and c follow.

2. Only b and c follow.

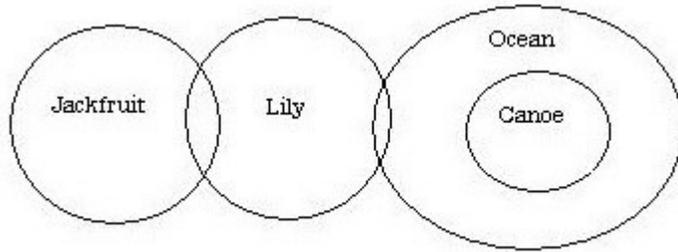
3. Only b and d follow.

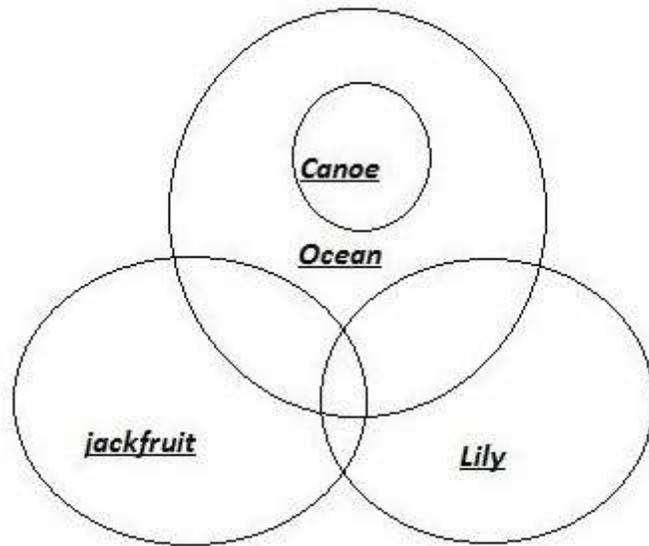
4. All follow.

Ans. The correct answer is '4'.



OR





Some jackfruits are lilies. Hence the jackfruit set and lily set partially overlap. Note that when the word 'some' is used, it includes in it, the possibility of 'all' as well. This means that another possibility is that the jackfruit set and the lily set completely and perfectly juxtapose each other. However, a partial overlap is generally the more common assumption.