

## THE 25 HORSES PROBLEM

- The horses are divided into 5 groups of 5 horses each.
- Group-wise the horses are made to run.(MATCH - 1 to 5)
- The top three horses of each race have to be selected.
- The horses that had arrived at the first place of each match (match - 1 to 5) have to be contested against each other.(MATCH - 6)
- The horse that arrives at the first place of this match (match - 6) is declared '**fastest**'.
- In the next match the second and third places of MATCH - 6, the second and third places against the 'fastest' horse of match –(one of the matches) 1 to 5, and the second place against the second fastest horse (of match 6) during the first set of matches have to be contested against each other.(MATCH - 7)
- The first and second places of the match- 7 is the declared '**second fastest**' and '**third fastest**' respectively.

Ans: 7-MATCHES

Explanation:

- The horses are divided into 5 groups: A, B, C, D, E
- After the matches 1 to 5 the horses are named  $A_1, A_2, A_3, \dots$ ;  $B_1, B_2, B_3, \dots$ ;  $C_1, C_2, \dots$ ;  $D_1, D_2, \dots$ ;  $E_1, E_2, \dots$  etc respectively according to the positions they secured in the race
- All the horses that had arrived at the first place of each match (match - 1 to 5) have to be contested against each other in match 6 i.e.  $A_1, B_1, C_1, D_1, E_1$  contested against each other in match-6.
- In the next match the second and third places of MATCH - 6, the second and third places against the 'fastest' horse of match –(one of the matches) 1 to 5, and the second place against the second fastest horse (of match 6) during the first set of matches have to be contested against each other.(MATCH - 7).

i.e.:

Let us assume that the winners of match-6 are  $B_1, C_1$  and  $D_1$  in the first, second and third positions respectively, then  $B_1$  is termed the '**fastest**'

In match-7:

$B_2, B_3, C_1, C_2, D_1$  shall contest against each other. The first position and second position of this race is termed the '**second fastest**' and the '**third fastest**' respectively.