

2. Let $R = \{(1,3), (4,2), (2,4), (2,3), (3,1)\}$ be a relation on the set $A = \{1,2,3,4\}$. The relation R is

A) a function

B) reflexive

C) not symmetric

D) transitive

Correct Answer: C

Solution : Let $R = \{(1, 2), (4, 2), (2, 3), (3, 1)\}$ be a relation on the set $A = \{1, 2, 3, 4\}$. Since $(2, 4) \in R$ and $(3, 2) \in R$, R is not a function. Since $(1, 3) \in R$ and $(3, 1) \in R$, but $(1, 1) \notin R$, R is not transitive. Since $(2, 3) \in R$ but $(3, 2) \notin R$, R is not symmetric. Since $(4, 4) \notin R$, R is not reflexive.