

QUESTION - ANSWER
QUESTION - 52

NAME
NO. (OUT OF 100)
MARKS (OUT OF 100)

QUESTION - 53

Which of the following is not a group? (a) Group (b) Subgroup (c) Coset (d) Quotient group. Answer: (c) Coset. Reason: A subgroup of a group is a subset of the group which is closed under the group operation and inversion. A coset is a set of the form gH , where g is an element of the group and H is a subgroup of the group. A coset is not a group because it is not closed under the group operation. For example, let G be a group and H be a subgroup of G . Let g be an element of G and h be an element of H . Then gh is an element of G but not necessarily of H . Hence, gH is not a group.

- (a) Group
 - (b) Subgroup
 - (c) Coset
 - (d) Quotient group
- Answer: (c) Coset.

QUESTION - 54

Let G be a group and H be a subgroup of G . Let a be an element of G . Then the number of elements in the coset aH is the same as the number of elements in H . This is true for all cosets of H in G .