7b)   Using   prims Algo

       initial node : A
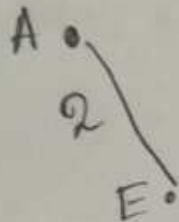
step 1:   pick smallest weight edge from A
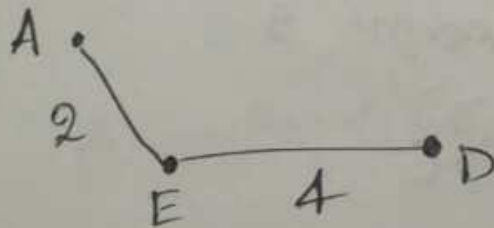
$$A \bullet$$
$$2$$
$$E \bullet$$

step 2:   pick next smaller weight edge from A (or)

                                               E

     $min(AB, AC, EC, ED)$
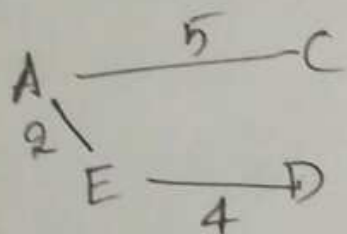
       $= (9, 5, 12, 4)$

       $=$ $ED : weight - 4$

$$A \bullet$$
$$2$$
$$E \quad 4 \quad D$$

step 3:   pick next smaller weight edge from A

                                           (or) E

                                           (or) D.

min (AB, AC, EC, DC)

$= \min (9, 5, 12, 6)$

$= 5 : AC$

A ———5——— C
2\
   E ———— D
      4

step 4 : Add next smaller edge from A (or) C (or) D
(or) E
Except BC, AB other edges form cycles.

∴ min (AB, BC)

$= \min (9, 3)$

$= BC \rightarrow$ weight 3

A ——5——B ↘3 C
2\ E ——4—— D
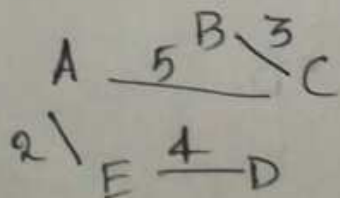
Edges added inorder $= \{ AE, ED, AC, BC \}$