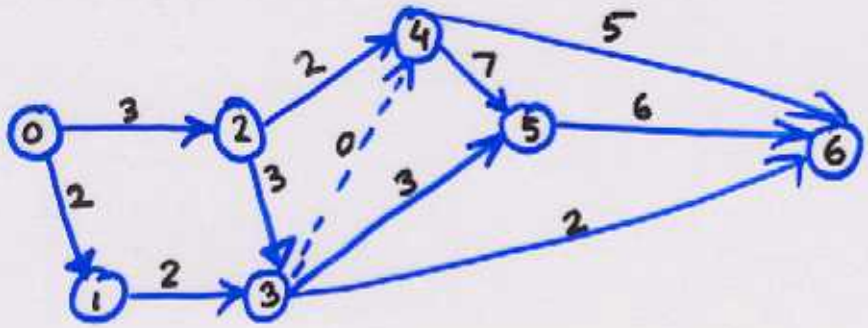
CRITICAL PATH COMPUTATION

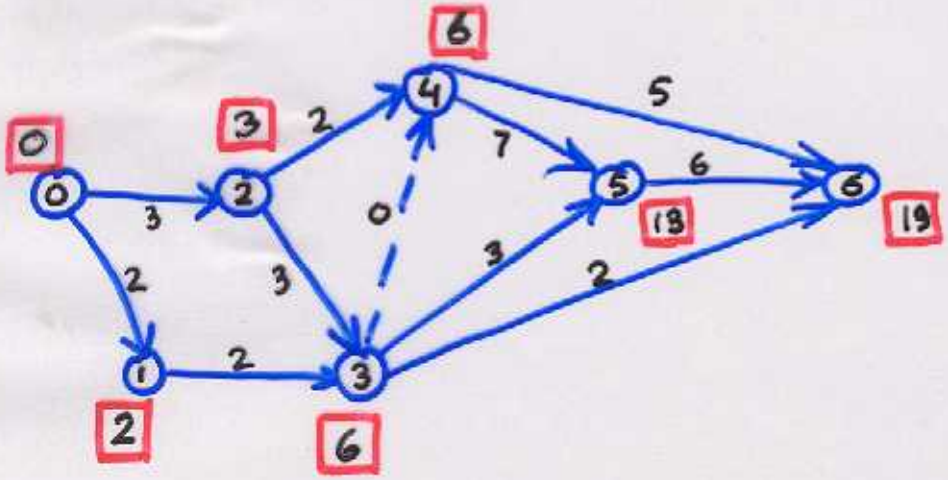
HERE WE SHALL USE AN EXAMPLE



THE NUMBERS ON THE LINKS REPRESENT THE TIME TAKEN TO COMPLETE THE ACTIVITY

STEP I: FORWARD PASS

HERE COMPUTATION BEGINS WITH START NODE AND ENDS WITH END-NODE. THE AIM IS TO CALCULATE, AT EVERY NODE i, THE EARLIEST TIMES AT WHICH THE EVENT (CORRESPONDING TO i) COULD OCCUR (ES_i). IN THE FOLLOWING FIGURE THESE VALUES ARE SHOWN IN □ ADJACENT TO EACH NODE.



NOTE:

$$ES_j = \max_i \{ES_i + D_{ij}\}$$

WHERE D_{ij} ARE ACTIVITIES COMING INTO j AND STARTING FROM i.

THE ABOVE IS EVALUATED ONLY FOR THOSE i's FROM WHICH THERE IS A D_{ij} INCEDENT UPON THE NODE OF INTEREST j.

FOR EXAMPLE

$$ES_6 = \max\{ES_4 + D_{46}, ES_5 + D_{56}, ES_3 + D_{36}\}$$

$$= \max\{6+5, 13+6, 6+2\}$$

$$= \max\{11, 19, 8\} = 19.$$