

18. Преобр. на посл. вериги



II закон на Кирхоф

$$\sum_k Z_k \dot{I}_k + \sum_k \dot{U}_k = \sum_k \dot{E}_k$$

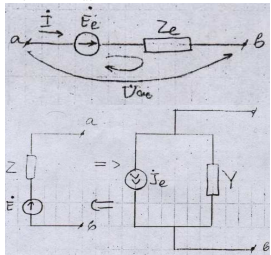
$$\sum_{k=1}^n Z_k \dot{I}_k - \dot{U}_{ab} =$$

$$\sum_k \dot{E}_k = \dot{E}_1 - \dot{E}_2 + \dots + \dot{E}_n$$

$$Z_e = \sum_{k=1}^n Z_k$$

$$\dot{E}_e = \sum_{k=1}^n \dot{E}_k$$

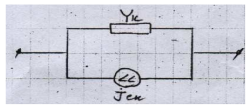
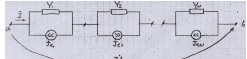
$$Z_e \dot{I}_k - \dot{U}_{ab} = \dot{E}_e$$



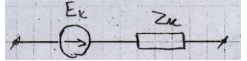
$$Z = \frac{1}{Y}, Y = \frac{1}{Z}$$

$$\dot{E} = \frac{J_e}{Y}, J_e = \frac{\dot{E}}{Z}$$

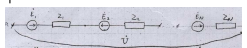
Послед. съед. ел-ти.



еквивалентно се преобразува



$$\dot{E}_k = \frac{J_{ek}}{Y_k}, Z_k = \frac{1}{Y_k}$$

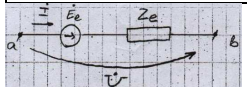


$$\dot{E}_e = \sum_{k=1}^n \dot{E}_k = \dot{E}_1 - \dot{E}_2 + \dots + \dot{E}_n =$$

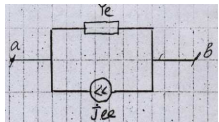
$$= \frac{J_{e1}}{Y_1} - \frac{J_{e2}}{Y_2} - \dots + \frac{J_{en}}{Y_n}$$

$$Z_e = \sum_{k=1}^n Z_k = \sum_{k=1}^n \frac{1}{Y_k}, \dot{E}_e =$$

$$= \sum_{k=1}^n \frac{J_{ek}}{Y_k}, J_{ee} = \frac{\dot{E}_e}{Z_e}$$



$$(1) J_{ee} = \frac{\sum_{k=1}^n J_{ek}}{\sum_{k=1}^n \frac{1}{Y_k}}$$



$$(2) Y_e = \frac{1}{\sum_{k=1}^n \frac{1}{Y_k}}$$

1 и 2 дават посл. преобр. на тези ел-ти в един и същ.