

QUESTION 4

- 4.1 A star connected load of 3 300 kVA at 18 kV and a power factor of 0,8 lagging is supplied by a three-phase transmission line having a resistance of 4 ohms per phase and an inductive reactance of 7 ohms per phase.

Determine the following:

4.1.1 The sending-end voltage

(5)

4.1.2 The percentage regulation

(3)

4.1.3 The efficiency of the line

(4)