

## 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) |