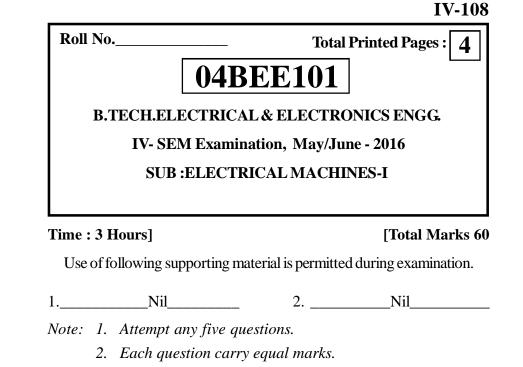
- 5. a) Develop the approximate equivalent circuit referred to primary side of transformer, and indicate how it differs from the exact equivalent circuit.
  - b) The following tests were obtained on a 20KVA, 2200/220V, 50HZ single phase transformer.

OC test (LV side): 220V, 1.1 A, 125 watts

SC test 9 HV side): 52.7V, 8.4 A, 287 watts.

The transformer is loaded at unity factor on secondary side with a voltage of 220v. determine the maximum efficiency and the load at which it occurs.



## UNIT-I

- 1. a) Derive EME equation for a DC machine.
  - b) Explain Armature reaction process.

## OR

a) Draw the power flow diagram for DC generator. Also discuss the constitution for maximum efficiency.

1

4

04BEE101

Contd...