

Name of the Student: _____

Max. Marks : 13 Marks

Time : 13 Minutes

Mark Schemes

Q1.

- (a) (i) Iron
for 1 mark 1
- (ii) $V/240 = 2000/10\ 000$
 $V = 48$
 V
for 1 mark each 3
- (b) changing current in primary causes changing (magnetic) field in core links to secondary inducing voltage (emf) in secondary (**NOT** current) secondary voltage/current is alternating
for 1 mark each 4
- (c) magnetic field not changing/no electromagnetic induction because direct current
for 1 mark each 2

[10]

Q2.

- (a) output voltage less than (the) input voltage
or p.d. across output less than p.d. across input or output is (only) 4.2 V (whereas) the input is 230V or WTTE (words to that effect) 1
- (b) any **two** from
(made of soft) iron
laminated
or designed to reduce eddy currents
or made of thin slices with slices of insulating material between them
core(s) joined to make a ring 2

[3]