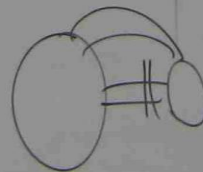
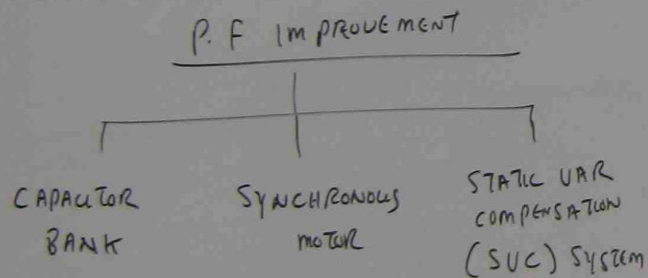


REVISION TEST (2)

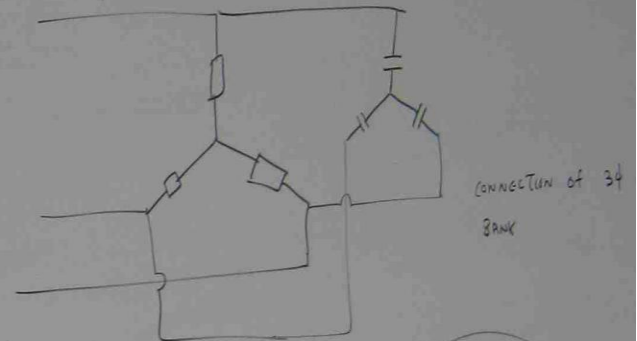
Q1 (a) How will you connect reactive power control capacitor bank to 3 ϕ system

(b) SKETCH THE SYNCHRONOUS MOTOR REACTIVE POWER CONTROLLER

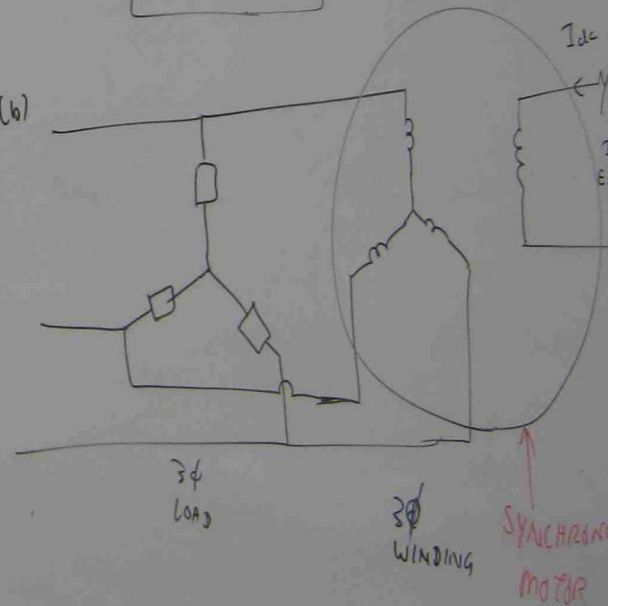
Q2. EXPLAIN HOW REACTIVE POWER IS CONTROLLED BY USING STATIC VAR COMPENSATION SYSTEM.

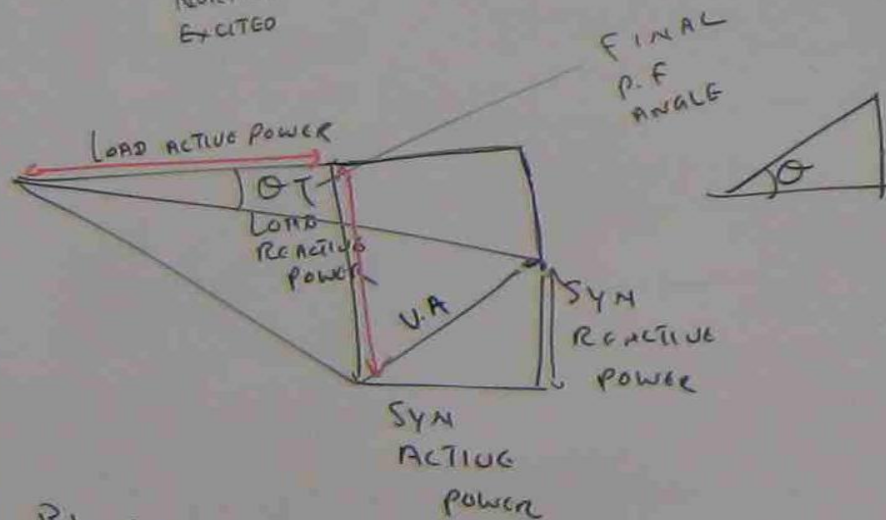
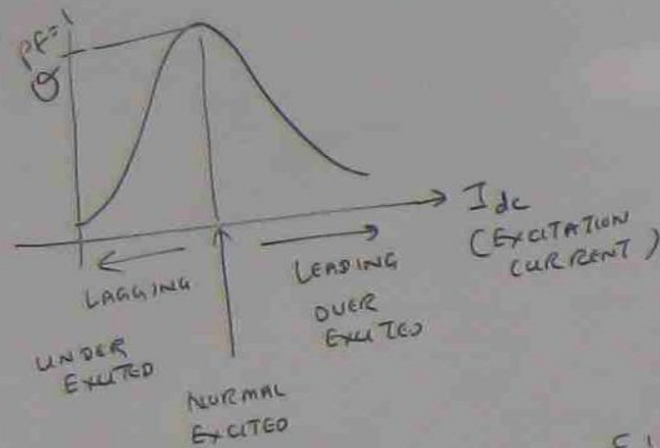


Q1 (a)



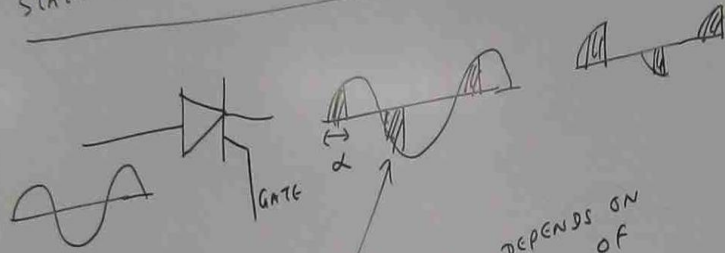
(1) (b)



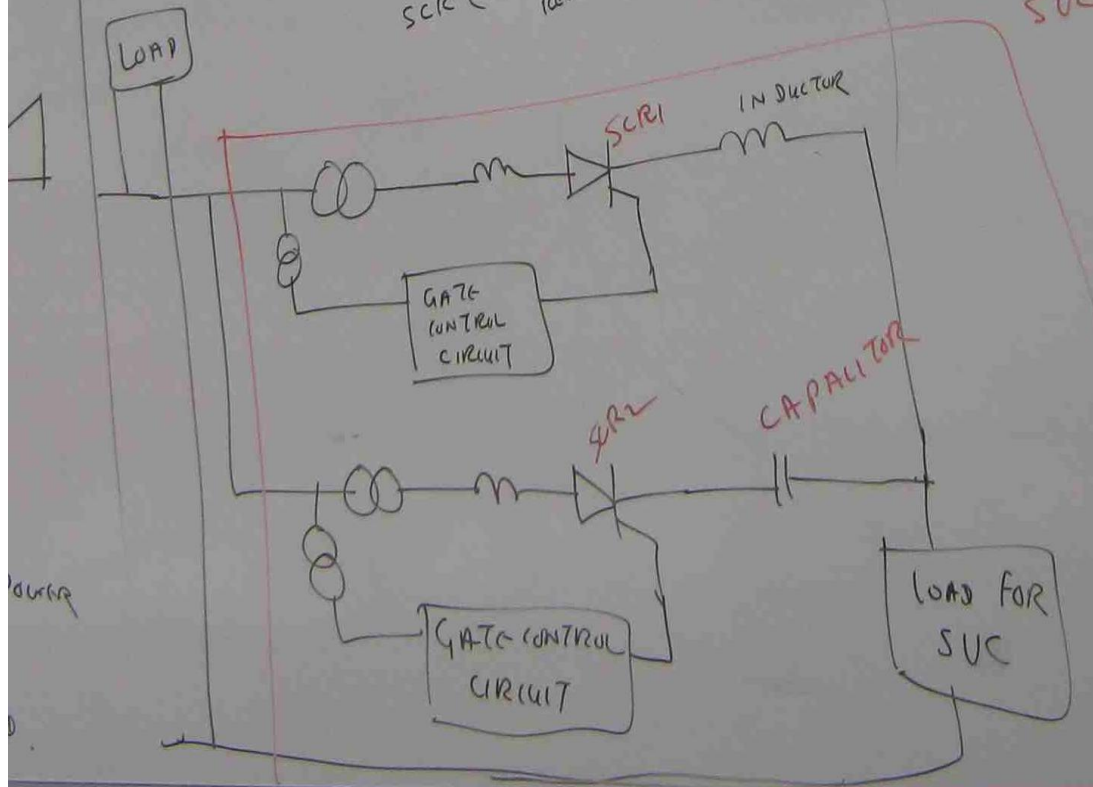


BY ADJUSTING FIELD EXCITATION OF SYNCHRONOUS MOTOR, ITS REACTIVE POWER CAN BE ADJUSTED TO LEADING & OVER ALL P.F CAN BE IMPROVED.

Q2 STATIC VAR COMPENSATION SYSTEM



OUTPUT CONDUCTION DEPENDS ON
GATE FIRING SIGNAL OF
SCR (SILICON CONTROLLED
RECTIFIER) (THYRISTOR)



GATE FIRING SIGNAL DETERMINE
THE AMOUNT OF THE CURRENT PASSING
THROUGH SCR1 AND SCR2.

SCR1 CURRENT PASSES THROUGH
INDUCTOR CAUSING LAGGING P.F.

SCR2 CURRENT PASSES THROUGH
CAPACITOR CAUSING LEADING P.F.

THE P.F DEPENDS ON AMOUNT OF
SCR CURRENTS WHICH ARE
REGULATED BY FIRING SIGNAL

FIRING SIGNAL SOURCE SENSES

THE SYSTEM P.F AND

PRODUCES THE APPROPRIATE

GATE FIRING SIGNALS.

