

Total No. of Questions :6]

SEAT No. :

P220

[Total No. of Pages :2

Oct./ BE/ Insem. - 536

B.E. (Electrical)

POWER QUALITY

(2015 Course) (Semester - I) (403143B) (Elective-I)

Time : 1 Hour]

[Max. Marks :30

Instructions to the candidates:

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Use of calculator is allowed.*
- 5) *Assume suitable data, if necessary.*

Q1) a) Why power quality is important in today's modern world? **[5]**

b) What are symptoms of poor power quality & its effect on equipment performance? **[5]**

OR

Q2) a) What are the sources for long duration RMS voltage variations? Explain any one in detail. **[5]**

b) Write note on grounding of sensitive electronic equipment. **[5]**

Q3) a) With suitable diagram explain voltage sag and interruption. **[5]**

b) Discuss the factors which governs the severity of voltage sag. **[5]**

OR

P.T.O.

Q4) a) List different voltage sag characteristics? Explain any one in detail. [5]

b) Draw & explain SEMI F47 curve in connection with voltage sag? [5]

Q5) a) Discuss the sources of transient overvoltages. [5]

b) Define flicker and discuss means to reduce voltage flicker. [5]

OR

Q6) a) What do you mean by impulsive and oscillatory transients? [5]

b) State and explain the principles of overvoltage protection [5]