Total No. of Questions : 6]

SEAT No. : ____

P5831

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BE/Insem./Oct.-562
B.E. (Electrical)
POWER QUALITY
(2015 Pattern) (Semester - I) (Elective - I)

Time :1 Hour] ***[Max. Marks :30***

Instructions to the candidates:

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

Q1) a) Write symptoms/ indicators of poor power quality and the associated cause of problems. **[5]**

b) Describe the grounding practices for sensitive equipment as per IEEE 1100. **[5]**

OR

Q2) a) Discuss classification of various power quality issues as per IEEE 1159. **[5]**

b) Discuss the sources and effects of long duration RMS voltage variations. **[5]**

Q3) a) What are the factors governing severity of voltage sag? **[5]**

b) Draw and explain ITIC curve. **[5]**

OR

Q4) a) What are causes of voltage sag? **[5]**

b) Explain the Voltage sag mitigation techniques at equipment level. **[5]**

Q5) a) What are the causes of Impulsive and oscillatory transients? Explain. **[5]**

b) Discuss the factors which affects severity of flicker. **[5]**

OR

Q6) a) What is Ferro-resonance? What is its effect? **[5]**

b) Explain the terms P_{st} and P_{lt} with reference to Flicker measurement. **[5]**