

Total No. of Questions :6]

SEAT No. :

P75

OCT. -16/BE/Insem. - 129

[Total No. of Pages :2

B.E. (Electrical)

POWER QUALITY

(2012 Course) (Semester - I) (Elective-I) (403143 B)

Time : 1 Hour]

[Max. Marks :30

Instructions to the candidates:

- 1) *Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of Calculator is allowed.*
- 5) *Assume suitable data if necessary.*

Q1) a) Define & explain various power quality terms as per IEEE standard 1159. **[5]**

b) Explain the importance of power quality in today's context. **[5]**

OR

Q2) a) Define & explain short and long duration voltage variations. **[5]**

b) Write a note on grounding and power quality issues. **[5]**

Q3) a) Explain in brief various voltage sag characteristics. **[4]**

b) Explain in detail any one method of mitigating voltage sag. **[6]**

OR

Q4) a) Explain with suitable diagram area of vulnerability concept. **[5]**

b) Draw & explain ITIC curve with respect to power quality. **[5]**

P.T.O.

- Q5)** a) Explain various sources of transient voltage. [5]
b) Define flicker and explain various means to reduce voltage flicker. [5]

OR

- Q6)** a) Explain the various techniques adopted for over voltage protection. [5]
b) Write in brief about computer tools used for transient analysis. [5]

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