

SUBJECT CODE NO:- P-8280
FACULTY OF ENGINEERING AND TECHNOLOGY
M.E.(Electrical Power Systems) Examination MAY/JUNE-2016
Elective -II Special Topics in Power System
(Revised)

[Time:Three Hours]

[Max Marks:80]

“Please check whether you have got the right question paper.”

- N.B
- i) Solve **any two** questions from each section.
 - ii) Assume suitable data if necessary.
 - iii) Mathematical treatment is required wherever necessary.
 - iv) Figures to the right indicate full marks

Section A

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|-----|---|----|
| Q.1 | a) Explain various power quality problems in distribution system. | 10 |
| | b) Explain the effects caused by various harmonic creating loads on power system. | 10 |
| Q.2 | a) Explain harmonic power flow in power system | 10 |
| | b) Explain series resonance related to power system. | 10 |
| Q.3 | a) Explain mitigation of power quality problems using power electronic conditioner. | 10 |
| | b) Explain discrete time Markov chain [DTMC] | 10 |

Section B

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|-----|---|----|
| Q.4 | a) Explain recursive techniques used to state reliability of power system | 10 |
| | b) Explain in detail transmission system reliability | 10 |
| Q.5 | a) Explain distribution system reliability | 10 |
| | b) Explain various function of SCADA system. | 10 |
| Q.6 | a) Explain alarm function in operation & control of interconnected power system. | 10 |
| | b) Explain the work of SCADA in integration of measurement control & protection functions | 10 |