

Code No: H4304/R13

M. Tech. II Semester Supplementary Examinations, May-2017

CUSTOM POWER DEVICES

(Common to PE, P&ID, PE&ED, PE&D, EM&D and PE&PS)

Time: 3 Hours

Max. Marks: 60

*Answer any FIVE Questions
All Questions Carry Equal Marks*

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|----|---|---|-----|
| 1. | a | Explain about characteristics of voltage sag and voltage swell in detail | 6M |
| | b | What are the different power quality issues related to distribution systems | 6M |
| 2. | a | What is the reactive power compensation | 6M |
| | b | Explain how voltage source converter used for compensation of voltage sag | 6M |
| 3. | a | Explain DSTATCOM with characteristics a neat sketch | 6M |
| | b | Differentiate between DSTATCOM and STATCOM | 6M |
| 4. | a | Explain the operation of solid state breaker with a neat sketch and their characteristics | 6M |
| | b | Explain the operation of solid state current limiter with a neat sketch and their characteristics | 6M |
| 5. | a | Differentiate between UPFC and UPQC | 6M |
| | b | Explain about briefly about PQ theory | 6M |
| 6. | | Explain the recent advances of custom devices in detail | 12M |
| 7. | a | Explain the super conducting magnetic storage for reactive power compensation | 6M |
| | b | Explain the flywheel storage systems | 6M |
| 8. | | Explain the speed mechanical source transfer switch in detail | 12M |

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