

Code No: J4304/R16

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

CUSTOM POWER DEVICES

(Common to Power Electronic (43), PI&D (42), PE & ED (54), PE & D (52), PE & S(12), EM & D (44), Power Electronics & Power Systems (99))

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 |
