



PART – B (5 x 3= 15Marks)

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| 6.  | What is the meaning of power quality disturbances? | CO1-U |
| 7.  | What is a complex power?                           | CO2-U |
| 8.  | Define voltage sag (or) dip reduction?             | CO3-U |
| 9.  | Define the factor.                                 | CO4-U |
| 10. | Draw the DVR Structure.                            | CO5-U |

PART – C (5 x 16= 80Marks)

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|-----|---|----------|------|
| 11. | (a) Define power quality? Explain the reasons for increased concern in power quality. | CO1- U   | (16) |
|     | Or  |          |      |
|     | (b) Explain in detail about power quality problem.                                    | CO1- U   | (16) |
| 12. | (a) Discuss in detail about sinusoidal voltage source supplying linear load current.  | CO2- U   | (16) |
|     | Or  |          |      |
|     | (b) Explain in detail about three Non-sinusoidal balanced systems.                    | CO2- U   | (16) |
| 13. | (a) Derive the symmetrical components of phasor quantities? Discuss.                  | CO3-App  | (16) |
|     | Or  |          |      |
|     | (b) Derive the instantaneous real and reactive power components.                      | CO3-App  | (16) |
| 14. | (a) Demonstrate DSTATCOM Structure.   | CO4 -Ana | (16) |
|     | Or  |          |      |
|     | (b) Discuss in detail about ideal three phase shunt compensator structure.            | CO4 -Ana | (16) |
| 15. | (a) Explain Series Active Filter.   | CO5-Ana  | (16) |
|     | Or  |          |      |
|     | (b) Describe about rectifier supported DVR with Example.                              | CO5-U    | (16) |