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(b) Write the principles of hot line maintenance. Explain various types of hot line maintenance. 3+4

(c) Discuss special types of tools & non conducting materials used for preparing tools for hot line maintenance. 4+3

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(d) What are the safety procedure taken during the hot line maintenance? 7

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**B. E. (Eighth Semester) Examination,**

**Nov.-Dec. 2015**

(Old Scheme)

(Elect. Branch)

**INSTALLATION MAINTANANCE & TESTING of  
ELECTRICAL EQUIPMENTS**

*Time Allowed : Three hours*

*Maximum Marks : 80*

*Minimum Pass Marks : 28*

*Note : Attempt all the questions. Part (a) from each question is compulsory. Attempt any two parts from parts (b), (c) and (d) of each question.*

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**Unit-I**

1. (a) What do you mean by Electrical Shock? Distinguish between primary shock and secondary shock. 2

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- (b) Describe the initial site activities in scope of site management. **CSVTUonline.com** 7
- (c) State various safety procedures to be exercised during commissioning phase & operation and maintenance phase. 3+2+2
- (d) Describe the various types of maintenance with the advantages of programmed preventive maintenance. 6+1

**Unit-II**

2. (a) What are the different methods of cooling of transformers? 2
- (b) Write the procedure for dispatching, shipping, inspection & storage of a power transformer. 2+2+2+1
- (c) What are the preparations, precautions and procedure of drying out of transformer. 2+2+3
- (d) Explain the various steps of maintenance of a power transformer alongwith daily, weekly, monthly and annually inspection. 1+2+2+2

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**Unit-III**

3. (a) Define type test and routine test. 2

- (b) What are the possible troubles, causes and remedial actions for outdoor circuit breakers? 3+2+2
- (c) Explain the function and construction of SF6 circuit breaker and vacuum circuit breaker with suitable diagram. **CSVTUonline.com** 2+3+2
- (d) Explain various equipments on HT an LT side in a transformer substation alongwith their functions & types. 7

**Unit-IV**

4. (a) Write the standard designation for degree of cooling and protection. 2
- (b) Describe various steps in installation of large rotating machines, received in dismantled condition. 7
- (c) State the various troubles with bearings and their remedies. Discuss the lubricants used. 7
- (d) Give a list of tests conducted at site during installation of medium/large capacity induction motors. 7

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**Unit-V**

5. (a) What is Hot Line Maintenance? 2