



WINTER – 2022 EXAMINATION

Model Answer

Subject Name: Maintenance of Electrical Equipment

22625: MEE

Important Instructions to examiners:

- 1) The answers should be examined by key words and not as word-to-word as given in the model answer scheme.
- 2) The model answer and the answer written by candidate may vary but the examiner may try to assess the understanding level of the candidate.
- 3) The language errors such as grammatical, spelling errors should not be given more importance (Not applicable for subject English and Communication Skills).
- 4) While assessing figures, examiner may give credit for principal components indicated in the figure. The figures drawn by candidate and model answer may vary. The examiner may give credit for any equivalent figure drawn.
- 5) Credits may be given step wise for numerical problems. In some cases, the assumed constant values may vary and there may be some difference in the candidate's answers and model answer.
- 6) In case of some questions credit may be given by judgement on part of examiner of relevant answer based on candidate's understanding.
- 7) For programming language papers, credit may be given to any other program based on equivalent concept.
- 8) As per the policy decision of Maharashtra State Government, teaching in English/Marathi and Bilingual (English + Marathi) medium is introduced at first year of AICTE diploma Programme from academic year 2021-2022. Hence if the students in first year (first and second semesters) write answers in Marathi or bilingual language (English +Marathi), the Examiner shall consider the same and assess the answer based on matching of concepts with model answer.

Q. No.	Sub Q. No.	Answer	Marking Scheme
1.		Attempt any FIVE of the following:	10 Marks
	a)	List out factors influencing severity of shock. (Any four). Ans: Factors Influencing Severity of Shock: The severity of shock depends on following factors: 1. Mainly the magnitude of the voltage of the system. 2. Supply system whether D.C. or A.C. The direct current shock is more dangerous. 3. Path of current through human body (through heart or brain or not?). 4. Voltage and current strength of the system. 5. Area of contact of body to the faulty machine / equipment / device. (More contact area, higher is the risk). 6. The period or duration of current flow through the body. (More the duration, higher is the risk / danger). 7. Frequency of current / supply passing through the body. (Lesser is the frequency, more is the danger). 8. Rate of rise of current flow through the body. (mA/mS). 9. The phase of the heart cycle at the instant of the shock and phase of voltage wave. 10. The presence of moisture in the environment. (Wet conditions are more dangerous than Dry conditions). 11. Human tolerance to electric current. (It varies person to person to some extent). 12. Body resistance. (For wet body / low resistance body more severe is the shock). 13. The way in which muscle contracts in relation to current passing through body. 14. Whether the body is thrown off by muscle reaction or gets attached by muscle contraction / paralysis. 15. Magnitude of current passing through the body. OR Equivalent Answer/Points	1 Mark for each of any two points = 2 Marks
	b)	State the maintenance to be carried out on breather used in transformer. Ans:	

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