

Roll No

EX-6005(1) (CBGS)**B.E. VI Semester**

Examination, May 2019

Choice Based Grading System (CBGS)**Utilization of Electrical Energy***Time : Three Hours**Maximum Marks : 70**Note:* i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Describe the working of fluorescent lamps with help of circuit diagram, explain function of each part. 7
b) What is Flood Lighting? Explain the projectors used and also describe factors used in flood lighting calculations. 7
2. a) List the types of lighting schemes. Explain the factors to be considered for designing the lighting scheme. 7
b) State the advantages of electric heating over other types of heating. 7
3. a) Explain electron beam welding method. 7
b) Write the induction heating working principle and application with their limitation. 7
4. a) What is Electroplating? Explain the operation involved in electroplating. 7
b) What is the Tractive effort? Explain tractive effort for propulsion of train. 7

5. a) Why series motor is suitable for traction duties, explain with the help of characteristics curves. 7
b) Draw and explain the layout of 25kV A.C traction system. 7
6. a) Discuss the electric braking in electric motors. 7
b) Explain the calculation of electrical loads for air conditioning. 7
7. a) Explain the criteria for selection of electric motors for industrial application. <http://www.rgpvonline.com> 7
b) Draw the general speed time curve of train running on main line and explain. 7
8. Write short note on any two of the following: 14
a) Arc welding
b) Resistance welding
c) Importance of adhesive weight and co-efficient of adhesion
d) Hybrid vehicle
