

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
