B.Tech. SEM -VI Mechanical 2014 Course (CBCS): SUMMER - 2019 SUBJECT: ELECTIVE – I: ENERGY AUDIT & MANAGEMENT

Time: 02.30 PM TO 05.30 PM Day: Friday Date: 31/05/2019 Max. Marks: 60 S-2019-2761 N.B.: All questions are **COMPULSORY**. 1) 2) Figures to the right indicate FULL marks. **Q.1** What are the duties and responsibilities of Energy Manager? (10) \mathbf{OR} **Q.1** Explain the need for energy management especially for India. (10)**Q.2** What is the difference between process flow chart and Sankey diagram? (10)Explain with an example. OR **Q.2** Explain material balance, heat balance and energy balance with example. (10)Explain the financial analysis by Net Present Value Method. Q.3 (10)OR Q.3 Explain Return on Investment method. What are the limitations of this (10)method? **Q.4** Explain different ways to improve the energy efficiency of electrical motors. (10)**Q.4** Explain different ways to improve the energy efficiency of pumps. (10)Q.5 Explain energy conservations methods in boilers. (10)Explain energy conservation methods in furnaces. Q.5 (10)What are the instruments used for energy audit? Why are these important for (10) **Q.6** energy audit? OR Explain energy audit reporting requirements. Q.6 (10)

* * *