

**SECOND CLASS TEST (2019)**

**Course:** B.TECH **Semester:** 7th  
**Branch:** Mechanical **Subject Name:** Energy Conservation & Management  
**Date:** 11/10/2019  
**Day:** Friday **Subject Code:** ME0709  
**Time:** 2:30 To 2:15 PM **Max. Marks:** 20 Marks

**Q-1 Multi Choice Questions**

**(5)**

- (1) Non contact flow measurement can be carried out by**  
**(a)** Turbine flow meter **(b)** Orifice meter **(c)** Magnetic flow meter **(d)** Ultrasonic flow meter
- (2) Scale losses will**  
**(a)** will have no relation with excess air **(b)** will increase with nitrogen in air  
**(c)** increase with excess air **(d)** decrease with excess air
- (3) Of the following which are the property is most important for an insulating brick**  
**(a)** Mechanical strength **(b)** Porosity **(c)** Compact strength **(d)** Chemical property
- (4) The term blanket refers to**  
**(a)** Refractory brick **(b)** Ceramic fiber **(c)** Insulating brick **(d)** Castables
- (5) The ceramic recuperators can withstand temperatures upto:**  
**(a)** 400°C **(b)** 1700°C **(c)** 1300°C **(d)** 1400°C

**Q - 2 Explain briefly the difference between preliminary and detailed energy audits? (5)**

**OR**

**Q - 2 Explain the working of recuperator type heat exchanger in detail. (5)**

**Q - 3 Discuss the various types of heat losses in a boiler? (5)**

**OR**

**Q - 3 What are the benefits of insulation? (5)**

**Q - 4 What is heat wheels? Explain with sketch. (5)**