TITLE :

CALORIMETRY

2.0 OBJECTIVES:

To determine

(i) The specific heat capacity of Brass and Steel.

(ii) The water equivalent of the apparatus.

3.0 THEORY

(i) The metals specific heat capacity was calculated through the following :

Heat Lost by solid = Heat gained by water

or

$$M_s C_s (T_2 - T) = M_w C_{pw} (T - T_1) \quad \text{or}$$

$$C_s = \{M_w C_{pw} (T - T_1)\} / \{M_s (T_2 - T_1)\}$$

where

M_s = mass of metal piece

M_w = mass of water

C_s = Specific heat capacity of metal

C_{pw} = Specific heat capacity of water

T_1 = Initial water temperature

T_2 = initial solid temperature

T = final temperature of both water and Solid