**Substituted 5-benzylidenebarbituric acid.**

5-benzylidenebarbituric acid and its *p*-substituted compounds were prepared and their characterization were done using 1H and 13C spectral techniques.

To the calculated amount of the pure benzaldehyde (2 g, 0.015mol) and barbituric acid (1.55g, 0.015 mol) in warm ethyl alcohol was added a 10% solution of sodium hydroxide (catalytic amount) and the reaction mixture stirred for 2 hours. After completion of the reaction as indicated by TLC, the reaction mixture was left overnight (scheme I). Solid product was separated by filtration and washed several times with cold methanol.



Antimicrobial Activity: Agar well-diffusion method was followed to determine the  
antimicrobial activity [10]. Nutrient agar (NA) and Potato Dextrose Agar (PDA) plates were  
swabbed (sterile cotton swabs) with 8 hours old -broth culture of respective bacteria. Wells (6  
mm) were made in each of these plates using sterile cork borer. Briefly, agar plates were  
inoculated with bacterial strain under aseptic conditions and wells (diameter = 6 mm) were  
filled with 50 µl of the test samples and incubated at 37°C for 24 hours. After the incubation  
period, the radii of the growth of inhibition zones were measured. The distance between center  
of the well to the edge of the zone was determined to be the inhibition zone radii. Three  
inhibition zone radii measurements were taken for each well and averaged, for each replicates  
the readings were taken in three different fixed directions and the average values were recorded.  
The average inhibition zone radii for the various bacteria are shown in Table 1.