

### Experiment : Temperature Optimum

Objective: In this experiment students will determine the temperature optimum of their unknown Bacterium .

#### Procedure

1. Make a culture of your unknown by inoculating 1 ml of dilution sample, and divided it in to three group each group will streak three plates.
2. Incubation each group in different temperature (4, 35, 55C ) and label it .
3. read the result and write it as below .

#### Temperature optimum of unknown bacterium

Temperature	Growth	Colony No.
4C		
35C		
55C		

### Experiment : pH Optimum

Objective: In this experiment the students will determine the pH optimum for the growth of their unknown bacterium .

#### Procedure

1. prepare culture media and divided in to three group depend on PH (alkaline , neutral , acidic ) .
2. Make a culture of your unknown by inoculating 1 ml of dilution sample, and divided it in to three group each group will streak three plates.
3. Incubation groups in 35C and label it .
4. read the result and write it as below .

#### pH optimum of unknown bacterium

pH	Absorbance
5	
7	
9	

### Experiment : Degradation of Polysaccharides

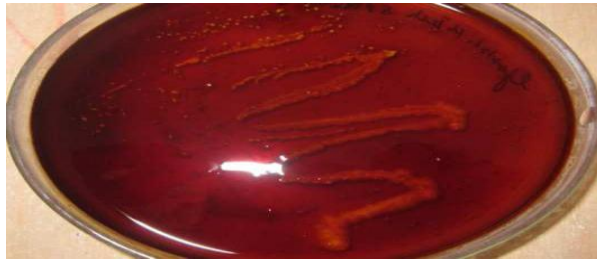
Objective: In this experiment students will determine if their unknown bacterium hydrolyzes starch .

#### Procedure

1. prepare simple culture media and add to it starch .
2. culture of your unknown by inoculating 1 ml of dilution sample with starch media .
3. Incubation groups in 35C and label it .
5. read the result and write it as below .

#### Degradation of Polysaccharides

	hydrolysis	Non
Starch		



### Degradation of Proteins

Objective: In this experiment the students will determine if their unknown bacterium hydrolyzes casein, and gelatin .

#### Procedure

1. prepare simple culture media and add to it casein, and gelatin .
2. culture of your unknown by inoculating 1 ml of dilution sample with the media .
3. Incubation groups in 35C and label it .
4. read the result and write it as below .

### Degradation of Proteins and gelatin

	hydrolyzes	non
Gelatin		
Casein		

