

## Enclosure III

### Shree Manibhai Virani and Smt. Navalben Virani Science College, Rajkot (Autonomous)

**Affiliated to Saurashtra University, Rajkot**

#### **Department of Biochemistry**

#### **B.Sc. BIOCHEMISTRY**

#### **Guidelines for Biochemistry Outreach Course (BOC) from Semester I to Semester V.**

1. It is compulsory for all the students to do any one of the activity and write its report from semester I to V.
2. There is no passing minimum for Biochemistry Outreach Course.
3. There is no provision for re-appearance or improvement of marks in BOC.
4. Activity carries 60% and Report writing 40% marks in each semester.
5. Remarks will be given at the end of the semester V based on the marks obtained from 50 marks in the five semesters.
6. **Grades and Grade Points – as per UGC norms**

Letter	Grade Point
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B (Above Average)	6
C (Average)	5
P (Pass)	4

#### **Components of CIE for Biochemistry Outreach Course from Semester I to V**

Semester	Component	Content	Duration	Marks	Sub Total
I	Activity 1	Practical Report Writing	2 hrs/wk	6 (set for 60) 4 (set for 40)	10
II	Activity 2	Practical Report Writing	2 hrs/wk	6 (set for 60) 4 (set for 40)	10
III	Activity 3	Practical Report Writing	2 hrs/wk	6 (set for 60) 4 (set for 40)	10
IV	Activity 4	Practical Report Writing	2 hrs/wk	6 (set for 60) 4 (set for 40)	10
V	Activity 5	Practical Report Writing	2 hrs/wk	6 (set for 60) 4 (set for 40)	10
<b>Grand Total</b>					<b>50 Marks</b>

**Activity 1 in Semester I: For eg-**

- To check the content of various biomolecules in packed food products and categorize them as protein rich /carbohydrate rich foods.
- To check the content of various biomolecules in packed juices and calculate its nutritive value.

**Activity 2 in Semester II: For eg-**

- To explain amino acids as building blocks of proteins
- To prepare models explaining different systems of human body.

**Activity 3 in Semester III For eg-**

- To explain activity of enzyme.
- To do survey of different enzymes used in clinical laboratory and food, detergent, cosmetic industry etc.
- Demonstrate different pigments present in leaf/coloured candies using method of chalk Chromatography.

**Activity 4 in Semester IV For eg-**

- Explain the concept of exergonic and endergonic reactions.
- Effect of consumption of alcohol, fast foods etc. on general health.
- Extraction of DNA from given plant sample.
- Discuss effect of different physical and chemical factors like radiation, cigarette smoke tobacco on structure of DNA

**Activity 5 in Semester V For eg-**

- To demonstrate production of oxygen and pH change during photosynthesis
- Give hands on training to school teachers on molecular biology and genetic engineering experiments.

**NOTE: All activities will be done with school children of various age groups.**

**60 marks for the activity and 40 for the report writing will be subdivided as follows:**

Activity		Report Writing	
Component	Marks	Component	Marks
Objective	10	Structure	10
Clarity of concept	10	Style	10
Communication	10	Critical perspective	10
Team Work	10	Content	10
Active Participation	10	--	--
Presentation	10	--	--
<b>TOTAL</b>	<b>60</b>		<b>40</b>