

# DEPARTMENT OF BIOCHEMISTRY

## 1. HISTORY

Sarojini Naidu Vanita Maha Vidyalaya established Department of Biochemistry in **2005**.

The three year degree program offered was **BSc- BBC –Biotechnology, Biochemistry and Chemistry** subjects.

In the year **2010-2011**, Department of **Applied Nutrition and Public Health** was started and the three year degree program was offered as **BSc- BCAN – Biochemistry, Chemistry and Applied Nutrition and Public Health** .

## 2. PROGRAMS OFFERED

**Academic Programmes offered – BSc-Under-graduate programs**

- 1) The course includes theory and Practicals with year wise examination under Osmania University.
- 2) In 2016, Semester system was introduced with a few additional courses like
  - Ability Enhancement Compulsory Course (AECC) for 1st year,
  - Skill Enhancement Course (SEC) for 2nd and 3rd year and
  - Generic Elective (GE) for 3rd year.
- 3) In 2019-20, there was a syllabus revision with several major changes in Biochemistry syllabus and pattern of Examination. English and Second Language were included in the 3rd year syllabus.

4) Osmania University introduced the bucket system (Choice based Credit Semester system ) from the year 2020 for the first time so as to enable students choose any three optional subjects of their choice from Life sciences with subjects like Botany, Chemistry, Microbiology, Applied-Nutrition with Biochemistry.

1. **Botany, Biochemistry, Applied Nutrition (B.BC.AN)**
2. **Botany, Biochemistry, Chemistry (B.BC.C )**
3. **Biochemistry, Chemistry, Applied Nutrition (BC.C.AN)**
4. **Microbiology, Biochemistry, Applied Nutrition (MB.BC.AN)**
5. **Microbiology, Biochemistry and Chemistry (MB.BC.C)**

### 3. INFRASTRUCTURE DETAILS

#### CLASSROOMS-

- The classes are conducted in internet and LCD enabled classrooms. Power point presentations and videos are shown for an elevated learning experience.
- E-resources and study material are shared with the students to make learning easy. Practical manuals are given for practical sessions.
- All the allotted classrooms are enabled with internet and LCD.

#### LABORATORY-

- Department of Biochemistry has a well-equipped and spacious lab- **Krebs lab** in the ground floor in which practicals are conducted.
- Biochemistry lab includes Chemicals, Glassware and Equipment and Instruments for the conduct of Practical for the B.Sc course.



### LIST OF EQUIPMENT/APPARATUS

S.No	Equipment / Apparatus	Total No	Stock Reg No
1	Autoclave	1	1
2	Colorimeter 8filter (Systronics)	4	13
3	Centrifuge 4 tube (Remi)	1	15
4	Digital balance (citizen)	2	29
5	Hot plate 8 rounds	1	31
6	Hot air oven 14x14 s/s	1	33
7.	Homogenizer	1	35
8.	Incubator 14x14 s/s	1	37
9.	Microscope	12	43
10.	Micro centrifuge	1	45
11.	Magnetic stirrer	1	47
12.	Micropipette	5	49
13.	Paper Electrophoresis unit (vertical)	2	51
14.	pH meter (Systronics)	1	53
15.	Rotary shaker	1	57

<b>S.No</b>	<b>Equipment / Apparatus</b>	<b>Total No</b>	<b>Stock Reg No</b>
16.	Submarine Electrophoresis unit	2	59
17.	Spectrophotometer	1	61
18.	TLC chamber	1	62
19.	Trans illuminator	1	63
20.	Test tube holder	39	65
21.	Test tube stands 15x12	30	69
22.	Vertical Gel Electrophoresis unit	2	71
23.	Water bath	1	75
24.	Spectrophotometer- computer	1	77
25.	Round stools	46	79
26.	Hemo cytometer	9	83

### LIST OF GLASSWARE

S.No	Item	Total No	Stock Reg No
1	Beaker 1000 ml	2	2
2	Beaker 500 ml	6	3
3	Boiling tube 25x150 mm	50	4
4	Droppers 8"	50	6
5	Droppers 6"	50	7
6	Glass spatula	12	8
7.	Beaker 250 ml	30	9
8.	Glass plates	52	10
9.	Beaker 150ml	30	11
10.	Plain slides	4 boxes	12
11.	Reagent bottles	40	14
12.	Dropper 125ml	50	16
13.	Conical flask 250 ml	84	17
14.	Dropper 60 bottle	50	18

15.	Graduated Pipette 10ml	15	19
<b>S.No</b>	<b>Item</b>	<b>Total No</b>	<b>Stock Reg No</b>
16.	Dropper 250ml bottle	50	20
17.	Graduated Pipette 5 ml	34	21
18.	Glass rods		22
19.	Graduated pipette 2 ml	25	23
20.	Round bottomed flask 250 ml	10	24
21.	Graduated pipette 1 ml	30	25
22.	Funnel 2''	50	26
23.	Weighing bottles	50	27
24.	Rubber Teats	200	30
25.	Inoculation loop holder	5 no.	34
26.	Petri plates " 4"	10	55
27.	Spray ball with bulb	1	60
28.	Test tubes 15x12		67
29.	Wash bottles	16	72

## LIST OF CHEMICALS

S.NO	CHEMICAL NAME	STOCK REGISTER PAGE NO
1.	ACETIC ACID	159
2.	ACETONE	5,181
3.	AMINOACID KIT	17
4.	AMMONIA SOLUTION	162
5.	ANTI ABCD	44
6.	BARFOED'S REAGENT	168
7.	BENEDICT'S REAGENT	25
8.	BIALS REAGENT	175
9.	BOVINE SERUM ALBUMIN	22
10.	BIURET REAGENT	24
11.	BORO SILICATE TEST TUBES	149
12.	CHOLESTROL	41
13.	CHLOROFORM	43
14.	CITRIC ACID	51
15.	CASEIN	79
16.	CUPRIC SULPHATE	158
17.	DIPHENYL AMINE ( DPA)	47
18.	DI ETHYL ETHER	50
19.	D -XYLOSE	35
20.	D- MANNOSE	84
21.	ETHYL ALCOHOL	170
22.	2,6 DICHLORO INDO PHENOL SODIUM SULPHATE (DCPIP )	70
23.	DROPPERS	150
24.	FEHLING'S SOLUTION -A	53
25.	FEHLING'S SOLUTION-B	57
26.	D-FRUCTOSE	161
27.	FERRIC CHLORIDE	55
28.	FOLIN'S (PHENOL )REAGENT	104
29.	DEXTROSE	67
30.	HCL (CONC)	75
31.	H2SO4 SULPHURIC ACID	77
32.	H2O2 HYDROGEN PEROXIDE	138
33.	HAEMOMETER	161
34.	IODINE	81
35.	IODINE MONO CHLORIDE (ICL )	82



36.	LACTOSE	85
37.	LEAD ACETATE	87
38.	MILLIONS REAGENT	93
39.	MOLISH REAGNT	95
40.	NINHYDRIN	99
41.	NITRIC ACID	167
42.	OXALIC ACID	80
43.	POTASIMUM IODIDE -KI	107
44.	PHENYL HYDRAZINE	142
45.	PETROLEUM ETHER	148
46.	PH- INDICATOR PAPER	120
47.	RNA	111
48.	RUBBER TEATS	173
49.	SELWINOFF'S REAGENT	113
50.	STARCH	117
51.	SODIUM ACETATE	119
52.	SODIUM NITRATE	121
53.	SURGICAL SPIRIT	86
54.	SULPHUR POWDER	94
55.	SODIUM CARBONATE	125
56.	SODIUM POTASSIUM TARTARATE	139
57.	SCHIFFS REAGENT	171
58.	SODIUM BICARBONATE	172
59.	SODIUM THIO SULPHATE	176
60.	WHATMANN FILTER PAPER	147
61.	WIRE GAUGE	126
62.	3,5 DI NITRO SALISIC ACID (3,5 DNS)	52

### **DEPARTMENTAL LIBRARY:**

Biochemistry Department has a library consisting of 55 books for ready reference for staff and students.

### **UG LIBRARY:**

College library has of 229 books for all the 3 years with books of both International and Indian authors.

Journals and Science magazines are also present for the students.