AC – 20/05/2025
Item No. – 6.18 (N) (1b) Sem. IV

As Per NEP 2020

University of Mumbai

Syllabus for Basket of OE Vertical 3	
Faculty of Science	
Board of Studies in Biochemistry	
Second Year Programme	
Semester	**IV**
Title of Paper	**Credits**
Understanding Diabetes mellitus	**2**
From the Academic Year	**2025-26**

Title of Paper: Understanding Diabetes mellitus

Sr. No.	Heading	Particulars
1	**Description the course :** **Including but Not limited to :**	This course introduces students with very basic understanding of Diabetes mellitus. This is an attempt to generate awareness about the health of an individual
2	**Vertical :**	Open Elective
3	**Type :**	Theory
4	**Credit**:	2 credits (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	**Hours Allotted :**	30 Hours
6	**Marks Allotted**:	50 Marks
7	**Course Objectives**: **1.** This course aims to introduce learners to the basic knowledge of Diabetes mellitus **2.** This course also aims to introduce about the nutrition and treatment options of in Diabetes mellitus	
8	**Course Outcomes**: **1.** The learner will be able to understand and explain the causes, types and symptoms of Diabetes mellitus. **2.** The learner will be able to understand and explain about the diagnostic tests and nutrition for Diabetes mellitus. They will also be able to explain about other complications in diabetic patients.	

9	**Modules**:- 2, Credits: 2
	Module 1: –Diabetes mellitus
	• Introduction to diabetes • Types • Causes • Management of Diabetes • Measures to control diabetes
	Module 2: Diagnostic tests and Nutrition for Diabetes mellitus
	• Diagnosis • Diet for diabetic patients • Biochemical test- Blood glucose and glycosylated hemoglobin • Diabetic complications: Diabetic retinopathy, Diabetic nephropathy, • Diabetic foot.
10	**Text Books:** 1. Principles of Biochemistry by Lehninger, Albert L., Nelson David and Cox, Michael M.; CBS publishers. 2. Harpers illustrated biochemistry by Murray, Robert K. *etal*.; Mc Graw Hill.

11	**Reference Books:** **1.** Text book of medical physiology by Guyton, Arthur C. and Hall, John E.; Harcourt Brace & Company Asia Pvt Ltd. **2.** Tortora's Principles of Anatomy and Physiology, 16th Edition, John Wiley & Sons, 2018	
12	**Internal Continuous Assessment: 40%**	**External, Semester End Examination: 60%** **Individual Passing in Internal and External Examination**
13	**Continuous Evaluation through:** Quizzes, Class Tests, presentation, project, role play, creative writing, assignment etc.(at least 3)	

14 **Format of Question Paper:** for the final examination

Evaluation for Open Elective Course: 50 Marks each

Course 1 – 50 marks

The evaluation of these courses would include continuous evaluation (internal assessment) and Semester end examinations (External assessment). The evaluation pattern would be as follows:

Internal assessment of each course: 20 marks.

a. Class test 1: **10 marks**
b. Quizzes, presentation, project, role play, creative writing, assignment etc. **5 marks**
c. Attendance and active participation in academic and co-curricular activities: **5 marks**.

External assessment of each course: – 30 Marks.

- Duration: 1 **Hour per course**
- Theory question paper pattern:

Question	Based on	Options	Marks
Q.1	Unit I	Any 5 out of 7 / Any 2 out of 3	10
Q.2	Unit II	Any 5 out of 7 / Any 2 out of 3	10
Q3.	Unit I and II	Any 5 out of 7 / Any 2 out of 3	10
		Total	**30**

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Dr. Samidha Pawaskar
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BOS in Biochemistry

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