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**FIRST YEAR MBBS BIOCHEMISTRY SYLLABUS**

**PAPER WISE DISTRIBUTION OF THEORY TOPICS**

*Student section*


**PAPER-I**

- Molecular and Functional Organization of Cell and Cellular Organelles
  - Biological Membranes- Structure, Function and Transport System
  - Chemistry and metabolism of Carbohydrates
  - Chemistry and metabolism of Lipids
  - Enzymology
  - Chemistry of Myoglobin and Haemoglobin Metabolism of haemoglobin and haemoglobinopathies
  - Bioenergetics- Biological Oxidation and Electron Transport Chain
  - Body fluids, Water and Electrolyte balance
  - pH, Buffer and Acid-Base balance and regulation
  - Biochemistry of cancer
  - Detoxification and Biotransformation
  - Body defense mechanism and immunology
  - Organ function tests
  - Laboratory techniques
  - Isotopes in medicine
  - AETCOM
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- ✓ **Applied aspect of topics covered under Paper-I course**
  - ✓ **Interpretive clinical chemistry with case report**
  - ✓ **There shall be two papers of three hours duration each. The paper shall be of hundred marks each. All the questions shall be compulsory with internal choice**

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GMERS MED. JUNAGADH  
Inward No: *53444*  
Date: *04/09/21*

*216  
09/09/21*

  
Professor & Head  
Department of Biochemistry  
G.M.E.R.S. Medical College & Hospital  
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**BHAKTA KAVI NARSINH MEHTA UNIVERSITY  
DEPARTMENT OF BIOCHEMISTRY  
GMERS MEDICAL COLLEGE, JUNAGADH**

Paddock Road, Majevasi Gate, Junagadh-362001, Gujarat

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**FIRST YEAR MBBS BIOCHEMISTRY SYLLABUS**

**PAPER WISE DISTRIBUTION OF THEORY TOPICS**

**PAPER-II**

- Chemistry and metabolism of Proteins and Amino acids and Related Disorders, Plasma proteins, extracellular matrix
- Integration of Metabolism and Metabolism in Starvation
- Vitamins
- Mineral Metabolism, Diet and Nutrition
- Mechanism of Hormones Action
- Molecular Biology- Nucleotide Chemistry & Metabolism and related disorders, Nucleic acid chemistry, DNA replication and repair, transcription and translation, protein targeting, Gene expression and regulation, Recombinant DNA technology and Gene therapy, Molecular diagnostics techniques
- Biochemistry of AIDS
- Environmental biochemistry
- Free radicals and antioxidants

- ✓ **Applied aspect of topics covered under paper-II course**
- ✓ **Interpretive clinical chemistry with case report**
- ✓ **There shall be two papers of three hours duration each. The paper shall be of hundred marks each. All the questions shall be compulsory with internal choice.**

  
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**Bhakta Kavi Narsinh Mehta University - Junagadh**  
**FIRST MBBS EXAMINATION**  
**BIOCHEMISTRY---PAPER I**

Time: 3 hrs.

Max. Marks: 100

- Instructions:** (1) Draw diagram wherever necessary.  
(2) Figures to the right indicate full marks  
(3) Write each section on a separate answer book.  
(4) Write legibly.

**SECTION—I**

**Q.1 Give an account of any ONE of the following.** **1×10=10**  
a)  
b)

**Q.2A Answer the following.** **6+6=12**  
a) Read the following case carefully and answer the questions.  
b) AETCOM


**Q.2B Write short notes on any THREE:** **3×6=18**  
a)  
b)  
c)  
d)

**Q.3 Answer in 2-3 sentences any FIVE the following:** **5×2=10**  
a)  
b)  
c)  
d)  
e)  
f)

**SECTION—II**

**Q.4 Give an account of any ONE of the following.** **1X10 =10**  
a)  
b)

**Q.5(A) Write short notes on any TWO.** **2X6=12**  
a)  
b)  
c)

  
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Q.5(B) Write short notes any THREE;

- a)
- b)
- c)
- d)

3×6=18

Q6. Answer in 2-3 sentences any FIVE;

- a)
- b)
- c)
- d)
- e)

5×2=10

————— X —————



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Bhakta Kavi Narsinh Mehta University  
FIRST MBBS EXAMINATION  
BIOCHEMISTRY---PAPER II

Time: 3 hrs.

Max. Marks: 100


- Instructions: (1) Draw diagram wherever necessary.  
(2) Figures to the right indicate full marks  
(3) Write each section on a separate answer book.  
(4) Write legibly.

SECTION—I

- Q.1 Give an account of any ONE of the following. 1X10 =10  
a)  
b)
- Q.2A Answer the following. 3+3+6 =12  
a)  
b)  
c) Read the following case carefully and answer the questions given below:
- Q.2B Write short notes on any THREE: 3X6 = 18  
a)  
b)  
c)  
d)
- Q.3 Answer in 2-3 sentences any FIVE: 5X2=10  
a)  
b)  
c)  
d)  
e)  
f)

SECTION—II

- Q.4 Give an account of any ONE of the following. 1X10 =10  
a)  
b)
- Q.5(A) Write short notes on any TWO: 2X6 = 12  
a)  
b)  
c)

  
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Q.5(B) Write short notes on any THREE:

3X6 = 18

- a)
- b)
- c)
- d)

Q.6 Answer in 2-3 sentences any FIVE:

5X2=1

- a)
- b)
- c)
- d)
- e)
- f)

————— X —————



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## Internal Marks Distribution First M.B.B.S Biochemistry

Theory		Practical	
Internal Exam	30	Internal Exam	30
Preliminary Exam	30	Preliminary Exam	30
Formative Assessment	40	Formative Assessment	40
Periodic/ System Ending/ MCQ/ Assignment	30	Periodic/ System Ending/ Theory Viva	20
		Journal + Logbook(SDL/ECE/ AETCOM)	10
Attendance	10	Attendance	10
Total	100	Total	100

### **Biochemistry Theory:**

2 Papers: Paper- I & Paper – II (Each paper 100 marks): **Total: 200 marks**

### **Biochemistry Practical + Viva:**


Total: 100 marks (Viva included in practical)

### **Internal Assessment:**

- 35% separately in theory and practical for eligibility to appear in University Examination.
- Need 50% in theory and practical combined before being declared pass.
- Those who appear in University exams with <50%, will need to make up before the result is declared
- Passing in internal assessment will be separately shown in the final result

### **University Examination:**

Mandatory 50% marks in Theory and Practical (Practical = Practical + Viva)

  
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