

**Teaching And Examination Scheme for B.Tech. (4 Year Course)  
In  
Biomedical Engineering**

**Year : II**

**(Revised) Semester-III**

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
<b>A. Theory Papers</b>								
3BM1	Mathematics III	3	1	-	3	20	80	100
3BM2	Electronic Devices and Circuits	3	1	-	3	20	80	100
3BM3	Anatomy & Physiology	3	1	-	3	20	80	100
3BM4	Electronic Measurements & Instrumentation	3	1	-	3	20	80	100
3BM5	Biochemistry and Histology	3	0	-	3	20	80	100
3BM6	Data Structures & Algorithms	3	0	-	3	20	80	100
<b>B. Practical &amp; Sessional :</b>								
3BM7	Anatomy and Physiology Lab	-	-	2	-	45	30	75
3BM8	Biochemistry and Histology Lab	-	-	3	-	45	30	75
3BM9	Electronics Lab	-	-	3	-	60	40	100
3BM10	Electronic Measurements & Instrumentation Lab	-	-	2	-	60	40	100
<b>3BMDC Discipline &amp; Extra Curricular activities :</b>						-	-	50
<b>GRAND TOTAL</b>		<b>18</b>	<b>4</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1000</b>

\* I.A. – Internal Assessment

**Teaching And Examination Scheme for B.Tech. (4 Year Course)**  
**In**  
**Biomedical Engineering**

Year : II

(Revised) Semester-IV

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
<b>A. Theory Papers</b>								
4BM1	Biophysics	3	1	-	3	20	80	100
4BM2	Biomedical Instrumentation-I	3	1	-	3	20	80	100
4BM3	Digital Electronics	3	0	-	3	20	80	100
4BM4	Transducers in Instrumentation	3	0	-	3	20	80	100
4BM5	Analog Communication	3	1	-	3	20	80	100
4BM6	Elective (any one of the following)	3	1	-	3	20	80	100
4BM6.1	Object Oriented Programming							
4BM6.2	Electromagnetic Field Theory							
4BM6.3	Mathematics -IV							
<b>B. Practical &amp; Sessional :</b>								
4BM7	Humanities and Social Sciences	-	-	2	-	30	20	75
4BM8	Digital Electronics Lab	-	-	3	-	60	40	100
4BM9	Biomedical Instrumentation Lab-I	-	-	3	-	60	40	100
4BM10	Communication Engineering Lab	-	-	2	-	60	40	100
<b>4BMDC Discipline &amp; Extra Curricular activities :</b>						-	-	50
<b>GRAND TOTAL</b>		<b>18</b>	<b>4</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1000</b>

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**Teaching And Examination Scheme for B.Tech. (4 Year Course)**  
**In**  
**Biomedical Engineering**

Year : III

Semester-V

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
<b>A. Theory Papers</b>								
5BM1	Signals and Systems	3	1	-	3	20	80	100
5BM2	Linear Integrated circuits	3	0	-	3	20	80	100
5BM3	Biomedical Instrumentation-II	3	1	-	3	20	80	100
5BM4	Biomaterials and components	3	1	-	3	20	80	100
5BM5	Microprocessor	3	1	-	3	20	80	100
5BM6	Elective (any one of the following)	3	0	-	3	20	80	100
5BM6.1	Intellectual Property Right							
5BM6.2	Hospital Engineering and Management							
5BM6.3	Optimization Technique							
<b>B. Practical &amp; Sessional :</b>								
5BM7	Analog Electronics Lab	-	-	3	-	60	40	100
5BM8	Biomedical Instrumentation Lab-II	-	-	3	-	60	40	100
5BM9	Microprocessor Lab	-	-	2	-	45	30	75
5BM10	Transducer Lab	-	-	2	-	40	35	75
<b>5BMDC Discipline &amp; Extra Curricular activities :</b>						-	-	50
<b>GRAND TOTAL</b>		<b>18</b>	<b>4</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1000</b>

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**Teaching And Examination Scheme for B.Tech. (4 Year Course)**  
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Year : III

Semester-VI

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
<b>A. Theory Papers</b>								
6BM1	Bioinformatics	3	1	-	3	20	80	100
6BM2	Clinical Science and Engineering	3	0	-	3	20	80	100
6BM3	Telemedicine	3	1	-	3	20	80	100
6BM4	Data Base Management System	3	1	-	3	20	80	100
6BM5	Microcontroller & Embedded System	3	1	-	3	20	80	100
6BM6	Elective (any one of the following)	3	0	-	3	20	80	100
6BM6.1	Medical Safety and Waste Management							
6BM6.2	Biostatistics							
6BM6.3	Cardiovascular Instrumentation							
<b>B. Practical &amp; Sessional :</b>								
6BM7	Microprocessor and Microcontroller Lab	-	-	3	-	45	30	75
6BM8	Clinical Science Lab	-	-	3	-	60	40	100
6BM9	Introduction to Good Laboratory Practice	-	-	2	-	45	30	75
6BM10	Electronic Workshop and PCB Lab	-	-	2	-	60	40	100
<b>6BMDC Discipline &amp; Extra Curricular activities :</b>						-	-	50
<b>GRAND TOTAL</b>		<b>18</b>	<b>4</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1000</b>

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**Teaching And Examination Scheme for B.Tech. (4 Year Course)**  
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Year : IV

Semester-VII

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
<b>A. Theory Papers</b>								
7BM1	Neural Networks and Fuzzy Logic Control	3	1	-	3	20	80	100
7BM2	Bio-signal Processing	3	1	-	3	20	80	100
7BM3	Biomechanics	3	1	-	3	20	80	100
7BM4	Biosensors and MEMS	3	1	-	3	20	80	100
7BM5	Ergonomics	3	0	-	3	20	80	100
7BM6	Elective (any one of the following)	3	0	-	3	20	80	100
7BM6.1	Robotics							
7BM6.2	VHDL							
7BM6.3	Fiber Optic Instrumentation							
<b>B. Practical &amp; Sessional :</b>								
7BM7	Industrial Economics and Management	-	-	3	-	60	40	100
7BM9	Circuit Simulation Lab	-	-	3	-	60	40	100
7BM9	Practical Training Seminar & Industrial Visit	-	-	2	-	60	40	100
7BM10	Project (Part - I)	-	-	2	-	30	20	50
<b>7BMDC Discipline &amp; Extra Curricular activities :</b>						-	-	50
<b>GRAND TOTAL</b>		<b>18</b>	<b>4</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1000</b>

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**Teaching And Examination Scheme for B.Tech. (4 Year Course)  
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Year : IV

Semester-VIII

Code	Subject	Hrs./week			Exam Hrs.	Maximum Marks		
		L	T	P		*I.A.	Exam	Total
<b>A. Theory Papers</b>								
8BM1	Radiology and Medical Image Processing	3	0	-	3	20	80	100
8BM2	Advances in Biomedical Engineering	3	1	-	3	20	80	100
8BM3	Rehabilitation Engineering	3	0	-	3	20	80	100
8BM4 8BM4.1 8BM4.2 8BM4.3	Elective (any one of the following) Artificial Intelligence and Expert Systems Advanced microprocessors Image Processing & Pattern Recognition	3	1	-	3	20	80	100
<b>B. Practical &amp; Sessional:</b>								
8BM5	Biosensor Lab	-	-	3	-	45	30	75
8BM6	Medical Imaging Lab	-	-	3	-	60	40	100
8BM7	Medical Sterilization Technique	-	-	3	-	45	30	75
8BM8	Seminar	-	-	2	-	60	40	100
8BM9	Project (Part - II)	-	-	4	-	120	80	200
<b>8BMDC Discipline &amp; Extra Curricular activities :</b>						-	-	50
<b>GRAND TOTAL</b>		<b>12</b>	<b>2</b>	<b>15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1000</b>

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