

Dr. Babasaheb Ambedkar Technological University, Lonere

**P.V.P. Institute Of Technology, Budhgaon-416304**

Department of Mechanical Engineering

## **NOTICE**

### **To All Faculty**

Mid Sem Exam of S.Y. T.Y and Final Year B Tech is arranged from 23/10/2021 to 28/10/2021 on online platform basis. To Conduct Mid Sem Exam DBATU gives some guidelines which are as follows

- 1) It should be conducted Department wise through every subject incharge
- 2) Subject teacher has to publish a question paper as per the schedule, 2 min.before starting time of the exam.(Google Classroom)
- 3) Teachers shall draft new question paper of 20 marks keeping in mind that students will refer books, notes for writing answers. Hence questions should be of higher level ( 3rd & 4th level in Bloom's Taxonomy)
- 4) Every subject incharge shall mention their Name mobile No. and official mail ID so as to collect PDF scanned answer books on Google classroom within 30 minutes after the end of exam.Time.
- 5) Make sure that all students are present in the group and receive the question paper in time. also ensure that 100% students attend the test online at scheduled timings

You are requested follow the guideline given by DBATU for smooth conduct of examination.



HOD

Mechanical Engineering Dept.

Dr. Babasaheb Ambedkar Technological University, Lonere

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Department of Mechanical Engineering

## **NOTICE**

### **To All Student**

Mid Sem Exam of S.Y. T.Y and Final Year B Tech is arranged from 23/10/2021 to 28/10/2021 on online platform basis. Time table of Mid Sem Exam attached Separately. You are informed to note the dates & timings of examination. To Conduct Mid Sem Exam DBATU gives some guidelines which are as follows

- 1) All students are instructed to attend the test online at scheduled timings.
- 2) Mid Sem Exam of 20 Marks to to be conducted.
- 3) Student will get a question paper of respective subject 2 min.before starting time of the exam.(Google classroom )
- 4) Student need to write a answer on paper and make a pdf copy of answer book and sent to the Google classroom of respective subject Teacher within 30 minutes after the end of exam Time.
- 5) Student should mention Name, Class with Division, Roll No, PRN on answer Book.
- 6) All student are instructed to follow the guideline given by DBATU and attend the Mid sem Exam.



HOD

Mechanical Engineering Dept.

Course: B. Tech in Mechanical Engineering.

Sem : VII

Subject Name: Mechatronics

Subject Code: BTMEC701

Max Marks: 20

Date:-28/10/2020

Time: 10.30 am 11.30 pm

Instructions to the Students:

1. All questions are compulsory.
2. Write all the answers with neat labeled diagram.
3. Figure to the right indicates full marks.

	BL	CO	PO
<b>Q.1 Attempt following Questions. (1 X 6 = 6 Marks)</b>			
1) Following is not an example of transducer Functional interaction between mechanical, electronic and information technologies (a) analogue voltmeter (b) thermocouple (c) photo electric cell (d)pneumatic cylinder	3	1	2
2) Sensors produce frequency which is counted by _____ (a) a chemical counter (b) a mechanical counter (c) an electronic counter (d) a basic counter	5	1	6
3) Signal conditioner is used for _____ (a)attenuating the voltage (b)maintaining a constant voltage (c)keeping the voltage zero (d)boosting the voltage	3	2	5
4) A circuit breaker will normally operate: (a)when the switch is put on (b) when the line is to be checked (c)when the power is to be supplied (d)whenever fault in the line occurs	5	2	6
5) The servomotor works on the same basic principle as that of a (a)two phase induction motor (b) single phase induction motor (c)three phase induction motor (d)none of these	5	3	1
6) Which type of solenoid has more chances of coil failure? (a)AC solenoid (b)DC solenoid (c)both AC and DC solenoids (d)none of the above	5	3	5
<b>Q.2 Solve Any Two of the following. (3 X 2 = 6 Marks)</b>			
(A) List various types of filters, elaborate signal filtering.	4&6	2	2
(B) What is operational amplifier? Explain Inverting amplifier with circuit diagram.	5	2	5
(C) Classify electric motors and discuss construction and working of DC servomotor.	4 & 6	3	1

**Q. 3 Solve Any One of the following. (8 X 1 = 8 Marks)**

- (A) Choose suitable sensors for sensing following quantities and also explain working principle of the sensor suggested by you. 6      1      6
1. Temperature      2. Fluid Level    3. Displacement      4. Velocity
- (B) Construct sketch of following pneumatic system component and discuss in brief; 6      3      6
1. Linear Actuator    2. FRL unit
- (C) Explain with a neat sketch of a Push button type spring return 5/2D.C. valve. 6      3      6

**Dr. Babasaheb Ambedkar Technological University ,Lonere**  
**P.V.P. INSTITUTE OF TECHNOLOGY, BUDHGAON**  
**MID SEM EXAMINATION OCTOMBER – 2020**  
**SECOND YEAR (SEM III) B TECH TIME TABLE TIME : 11.00 am to 12.00 Noon**

<b>Day and Date</b>	<b>COURSE</b>	<b>SUBJECT CODE</b>	<b>SUBJECT</b>
Friday 23/10/2020	All Branches	BTBSC301	Engineering Mathematics -III
Saturday 24/10/2020	Mech	BTMEC 302	Material Science & Metallurgy
	Electrical	BTEEC 302	Network Analysis & Synthesis
	ExTC	BTEXC 302	Analog Circuits
	Chem	BTCHC 302	Chemical Process Calculations
	Instru.	BTIEC 302	Sensor and Transducer
	Comp.	BTCOC 302	Discrete Mathematics
	Elex	BTEXC 302	Analog Circuits
	Civil	CV 302	Mechanics of Solids
Monday 26/10/2020	Mech	BTMEC 303	Fluid Mechanics
	Electrical	BTEEC303	Fluid Mechanics & Thermal Engg.
	ExTC	BTEXC303	Electronics Devices & Circuits
	Chem	BTCHC303	Fluid Flow Operations
	Instru.	BTIEC303	Network Analysis and Synthesis
	Comp.	BTCOC303	Data Structures
	Elex	BTEXC303	Electronic Devices & Circuits
	Civil	CV303	Hydraulics -I

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<b>Day and Date</b>	<b>COURSE</b>	<b>SUBJECT CODE</b>	<b>SUBJECT</b>
Tuesday 27/10/2020	Mech	BTMEC 304	Machine Drawing & CAD
	Electrical	BTEEC304	Measurement & Instrumentation
	ExTC	BTEXC304	Network Analysis
	Chem	BTCHC304	Mechanical Operations
	Instru.	BTIEC304	Analog Electronics
	Comp.	BTCOC304	Computer Architecture & Organization
	Elex	BTEXC304	Network Analysis
	Civil	CV304	Surveying -I
Wednesday 28/10/2020	Mech	BTMEC 305	Thermodynamics
	Electrical	BTEEOEL 305	Elective –I A) Signals & Systems
	ExTC	BTEXC305	Digital Logic Design
	Chem	BTCHC305	Advanced Engg. Chemistry
	Instru.	BTIEEL305	Elective –I Production Process & Metrology
	Comp.	BTCOC305	Digital Electronics & Microprocessor
	Elex	BTEXC305	Digital Logic Design
	Civil	CV 305	Building Construction

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<b>Day and Date</b>	<b>COURSE</b>	<b>SUBJECT CODE</b>	<b>SUBJECT</b>
Thursday 29/10/2020	Mech	-----	-----
	Electrical	BTHS 306	Engineering Economics
	ExTC	-----	-----
	Chem.	BTCHC306	Elective –I A) Renewable Energy Source
	Instru.	BTIEHS307	Applied Biology
	Comp.	-----	-----
	Elex	-----	-----
	Civil	CV 306	Engineering Geology

**Controller of Examination**

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**Mid Sem Examination Oct- 2020**

**Third Year (Sem V) B. Tech Time Table**

**Time : 11.00 am To 12.00 Noon**

<b>Day and Date</b>	<b>Course</b>	<b>Subject Code</b>	<b>Name of Subject</b>
Friday 23/10/2020	Mech.	BTMEC 501	Heat Transfer
	Electrical	BTEEC501	Electrical Machine-II
	ExTC	BTEXC501	Electromagnetic Field Theory
	Chem.	BTCHC501	Chemical Engineering Thermodynamics - II
	Instru.	BTINC501	Process loop components
	CSE	BTCOC 501	Database Systems
	Elex	BTEXC501	Electromagnetic Field Theory
	Civil	BTCVC 501	Design of Steel Structures
Saturday 24/10/2020	Mech.	BTMEC 502	Applied Thermodynamics – I
	Electrical	BTEEC502	Power System-II
	ExTC	BTEXC502	Control System Engineering
	Chem.	BTCHC502	Mass Transfer Operations - I
	Instru.	BTINC502	Microprocessor and Micro Controller
	CSE	BTCOC 502	Theory of Computation
	Elex	BTEXC502	Control System Engineering
	Civil	BTCVC 502	Structural Mechanics-II
Monday 26/10/2020	Mech.	BTMEC 503	Machine Design – I
	Electrical	BTEEC503	Microprocessor and micro Controller
	ExTC	BTEXC503	Computer Architecture
	Chem.	BTCHC503	Chemical Reaction Engineering - I
	Instru.	BTINC503	Digital Signal Processing
	CSE	BTCOC 503	Machine Learning
	Elex	BTEXC503	Microelectronics
	Civil	BTCVC 503	Soil Mechanics

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**Mid Sem Examination Oct- 2020**

**Third Year (Sem V) B. Tech Time Table**

**Time : 11.00 am To 12.00 Noon**

<b>Day and Date</b>	<b>Course</b>	<b>Subject Code</b>	<b>Name of Subject</b>
Tuesday 27/10/2020	Mech.	BTMEC 504	Theory of Machines II
	Electrical	BTEEC 505	Elective-IV – Adv. Renewable Energy Sources
	ExTC	BTEXC504	Digital Signal Processing
	Chem.	BTCHC505	Chemical Technology
	Instru.	BTINE504	Elective IV-Engineering Instrumentation
	CSE	BTCOE 504 B	Elective-III Cyber Laws
	Elex	BTEXC504	Digital Signal Processing
	Civil	BTCVC 504	Environmental Engineering
Wednesday 28/10/2020	Mech.	BTMEC505	Metrology and Quality Control
	Electrical	BTEEOE506	Elective-V- Power plant Engineering
	ExTC	BTEXC505	Microcontroller and its Applications
	Chem.	BTCHE 506	Elective II Petroleum Refining & Petro Chemicals
	Instru.	BTINE505A	Elective 5-Control System
	CSE	BTCOE 505 A	Elective IV Economics & Management
	Elex	BTEXC505	Microcontroller and its Applications
	Civil	BTCVC 505	Transportation Engineering
Thursday 29/10/2020	Mech.	-----	-----
	Electrical	-----	-----
	ExTC	BTEX 506 A	Data Structure & Algorithm using Java Programming Theory
	Chem.	-----	-----
	Instru.	-----	-----
	CSE	-----	-----
	Elex	BTEXPE506E	Elective I Audio and Video Processing
	Civil	CVE3	Elective II- Material Testing & Evaluation

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**Third Year (Sem V) B. Tech Time Table**

**Time : 11.00 am To 12.00 Noon**

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**Mid Sem Examination Oct .- 2020**

**Final Year (Sem VII) B. Tech Time Table**

<b>Day and Date</b>	<b>Course</b>	<b>Subject Code</b>	<b>Name of Subject</b>
Wednesday 28/10/2020  10.30 am to 11.30 am	Mech.	BTMEC 701	Mechatronics
	Electrical	BTEEC 701	Power System Operation & Control
	ExTC	BTEXC 701	Digital Communication
	Chem.	BTCHC 701	Process Dynamics & Control
	Instru.	BTIEC 701	Process Instrumentation & Control
	I T.	BTITC 701	Cloud Computing & Storage Management
	Elex	BTEXC 701	Antennas & Wave Propagation
	Civil	BTCVC 701	Design of Concrete Structures -II
Wednesday 28/10/2020  02.30 pm to 03.30 pm	Mech.	BTMEC 702	CAD/CAM
	Electrical	BTEEC 702	High Voltage Engineering
	ExTC	BTETPE 702	Satellite Communication
	Chem.	BTCHC 702	Pollution Control in Process Industries
	Instru.	BTIEC 702	Instrumentation System Design
	I T.	BTITC 702	Artificial Intelligence
	Elex	BTEXPE 702	Elective-III Digital Image Processing
	Civil	BTCVC 702	Infrastructure Engineering
Thursday 29/10/2020  10.30 am to 11.30 am	Mech.	BTMEC 703	Manufacturing Processes - III
	Electrical	BTEEC 703	Electrical Drives
	ExTC	BTETPE 703	VLSI Design and Technology
	Chem.	BTCHC 703	Transport Fenamena
	Instru.	BTIEC 703	Industrial Project Planning & Estimation
	I T.	BTITE 703 A	Elective-VII Pattern Recognition
	Elex	BTEXPE 703	Elective-IV IOT 4.0
	Civil	BTCVC 703	Water Resources Engineering

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**Final Year (Sem VII) B. Tech Time Table**

Day and Date	Course	Subject Code	Name of Subject
Thursday 29/10/2020  02.30 pm to 03.30 pm	Mech.	BTMEC 704 B	PEC-2 (Ind. Engg. & Management )
	Electrical	BTEEC704	Elective- IX Special Purpose Electrical Machines
	ExTC	BTETPE 704	Consumer Electronics
	Chem.	BTCHC 704	Process Equipment Design and Drawing
	Instru.	BTIEPE 704 C	Clinical Instrumentation
	I T.	BTITOC 704	Elective-VIII Machine Learning
	Elex	BTEXC 704	
	Civil	BTCVC 704	Professional Practices
Saturday 31/10/2020  10.30 am to 11.30 am	Mech.	-----	
	Electrical	BTEEC 706	Elective-X A) Energy Audit and Conservation B) Electrical Power Quality
	ExTC	BTHM 705	Financial Management
	Chem.	BTCHE 705 C BTCHE 705 D	Elective –IV A) Pharmaceuticals & Fine Chemicals (30) B) Modelling & Simulation in Chemical Engineering (56)
	Instru.	BTIEOE 705 A	Analytical Instrumentation
	I T.	BTITOE 705 B	Elective-IX Information Security
	Elex	BTEPE 705	Elective-V Wireless Communication
	Civil	BTCVC 705 A	Elective-IV Construction Techniques
Saturday 31/10/2020  02.30 pm to 03.30 pm	Mech.	-----	-----
	Electrical	-----	-----
	ExTC	-----	-----
	Chem.	-----	-----
	Instru.	-----	-----
	I T.	-----	-----
	Elex	-----	-----
	Civil	BTCVC OE 706 E	Elective-IV Town & Urban Planning

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# Department of Mechanical Engineering

## MID SEM EXAM MARKS

Class:- TY B. Tech.

DIV-B

Year:-2020-21

Sem-I

PRN NO.	NAME OF STUDENT	ROLL NO	DIV	HT	AT-I	MD-I	TOM-I	MQC
1962691612016	Pravin Ramchandra Patil	1	B	14	20	16	20	18
1962691612126	Santosh Shamrao Magdum	2	B	17	20	17	19	17
1962691612139	Pratik Suresh Shinde	3	B	17	20	18	20	18
1962691612109	Prathmesh Haridas Gaikwad	4	B	16	16	17	20	18
1962691612117	Aniket Bhagwat Mohite	5	B	17	16	17	18	15
1962691612143	Onkar Ajit Patil	6	B	15	16	17	20	18
1962691612127	Akshay Subhash Mali	7	B	17	19	18	18	16
1962691612123	Suraj Janardhan Maske	8	B	17	16	16	20	11
1962691612122	Shivam Haridas Patil	9	B	17	16	15	20	19
1962691612158	Pratik Vijay Dubal	10	B	17	20	18	17	18
1962691612167	Digvijay Dilip Autade	11	B	AB	AB	17	20	14
1962691612137	Vikramsingh J Rajput	12	B	17	16	17	20	17
1962691612103	Chaitanya Pradeep Patil	13	B	14	17	16	19	15
1962691612118	Priyanka Ananda Jamadade	14	B	17	19	25	20	18
1962691612036	Raviraj Ramchandra Shegane	15	B	17	20	19	18	18
1962691612008	Chandrashekhar V Gaikwad	16	B	AB	19	18	19	17
1962691612019	Vinayak Jagannath Kumbhar	17	B	17	20	18	20	15
1962691612131	Abhijeet Sahadev Durgade	18	B	AB	AB	16	19	17
1962691612096	Shweta Rajeshkumar Patil	19	B	16	AB	AB	18	17
1962691612097	Shraddha Shashikant Patil	20	B	AB	AB	AB	17	17
1962691612140	Pranay H Kumbhar	21	B	17	20	18	19	17
1962691612163	Akshay M Sambarekar	22	B	AB	AB	18	18	18
1962691612116	Sankalp Sampatrao Patil	23	B	15	19	18	17	18
1962691612133	Rutvik Krishnarao Chavan	24	B	17	19	16	18	18
1962691612006	Gaurav Kumar Bolke	25	B	AB	AB	AB	20	15
1962691612165	Pratik B Chandanshive	26	B	17	15	16	20	17
1962691612150	Rohit Arjun Tawdar	27	B	17	19	18	20	18
1962691612007	Ashitosh Sunil Gurav	28	B	AB	AB	AB	20	18
	Mayur Patil	29	B	16	19	18	20	17
1962691612043	Aman Ansar Dhalait	30	B	AB	AB	AB	18	17
1962691612119	Aditi Appaso Patil	31	B	AB	AB	18	18	18
1962691612009	Aishwarya Popatrao Patil	32	B	17	10	18	19	18
1962691612169	Atharv Vasant Pujari	33	B	AB	AB	AB	AB	AB
1962691612040	Karan Babaso Kamble	34	B	17	19	18	18	18
1962691612136	Rohit Anil Koshti	35	B	17	19	15	16	17
1962691612171	Rushikesh Rajendra Sutar	36	B	17	19	18	20	18
1962691612176	Onkar Yashwant Patil	37	B	AB	19	17	19	17
1962691612001	Sushant Satish Waingade	38	B	AB	19	18	20	18
1962691612115	Ajay Arvind Patil	39	B	16	19	16	18	16
1962691612108	Dhanesh Mahesh Kulkarni	40	B	AB	17	17	17	18

1962691612125	Rohit Dilip Shinde	41	B	17	19	18	20	18
1962691612026	Shubham Shivaji Shinde	42	B	17	20	17	19	16
1962691612039	Sourabh Suresh Magdum	43	B	16	20	17	20	17
1962691612145	Vishal Suryakant Aundhakar	44	B	17	20	18	20	17
1962691612162	Omkar Nivrutti Pawar	45	B	17	18	17	18	18
1962691612023	Prathamesh Ravindra Mane	46	B	16	16	16	15	16
1962691612159	Ritesh Netaji Waghmare	47	B	16	19	18	17	15
1962691612157	Chaitnya V Mahindrakar	48	B	AB	17	15	19	17
1962691612038	Amanulla Raju Shaikh	49	B	AB	AB	AB	AB	AB
1962691612138	Aditya Atul Pawar	50	B	16	19	17	19	17
1962691612042	Vikas Tanaji Hake	51	B	17	19	16	19	17
1962691612031	Shubham Dilip Zambare	52	B	17	19	16	15	14
1962691612098	Omkar Mohan Patil	53	B	16	20	18	16	17
1962691612041	Mihir Pravin Shete	54	B	AB	AB	AB	AB	17
1962691612168	Anuja Balaso Jamage	55	B	16	8	18	10	15
1962691612164	Ameya Uttam Patil	56	B	AB	AB	18	17	18
1962691612003	Dhanshri Shashikant Koli	57	B	AB	AB	AB	AB	AB
1962691612062	Madhuri Tatoba Mane	58	B	17	19	16	20	18
1962691612153	Shankar Shivaji Kamble	59	B	17	19	18	19	18
1962691612110	Shricharan Kiran Patil	60	B	16	20	18	19	17
1962691612111	Sameer Mubarak Nadaf	61	B	AB	AB	AB	17	17
1962691612044	Jatin Mahadev Madrasi	62	B	AB	AB	AB	AB	18
1962691612095	Rushikesh Shivaji Patil	63	B	16	20	15	19	16
1962691612059	Omkar Madhukar Mohite	64	B	17	19	18	20	17
1962691612048	Prashant Rajaram Ghode	65	B	17	20	15	18	17
1962691612106	Tanvi Santoshkumar Jadhav	66	B	17	20	16	18	17
1962691612002	Sahil Dilip Gaikwad	67	B	17	19	16	20	17
1962691612057	Vedant Sanjay Potdar	68	B	16	19	18	17	16
1962691612154	Prathamesh Pandurang Sale	69	B	17	20	18	19	14
1962691612046	Aman Sharif Momin	70	B	15	20	18	20	17
1962691612174	Akshay H Suryawanshi	71	B	17	19	18	16	17
1962691612045	Prashant Ganesh Mane	72	B	16	20	18	18	17
1962691612170	Parag Anil Suryavanshi	73	B	17	19	16	20	16
1962691612173	Sankalp Sudhir Tirmare	74	B	16	19	17	15	18
1962691612058	Nikhil Sanjay Khemalpure	75	B	15	19	18	18	15
1962691612101	Rasika A Gangavane	76	B	AB	20	17	17	18
1962691612107	Shubham Sayaji Sawant	77	B	17	19	17	20	18
1962691612035	Meena C Vhankade	78	B	17	20	16	15	17
	Komal Jadhav	79	B	17	18	0	19	15