DEV BHOOMI GROUP OF INSTITUTIONS SAHARANPUR

DEPARTMENT OF MECHANICAL ENGG.

ASSIGNMENT QUESTIONS - UNIT I

S.No.	SUBJECT	CODE	FACULTY NAME	COURSE	SEM	UNIT	DOA	DOS	QUESTION 1	QUESTION 2
1	MEASUREMENT & METROLOGY	BME701	SACHIN YADAV	B.TECH	7	1			EXPLAIN DIFFERENTS TYPES OF MEASURING INSTRUMENTS.	Explain Types of sensors, types of transducers and their characteristics.
2	ADDITIVE MANUFACTURING	BME071	MOHD USMAN	B.TECH	7	1			GIVE CLASSIFICATIONS OF ADDITIVE MANUFACTURING PROCESS.	WHAT IS ADDITIVE MANUFACTURING PROCESS? EXPLAIN WITH DIAGRAM.
3	RENEWABLE ENERGY RESOURCES	KOE074	SANAJAY SINGH	B.TECH	7	1			DEFINE THE DIFFERENT RESOURCES OF NON CONVENTIONAL ENERGY RESOURCES	EXPLAIN THE WORKING PRINCIPLE OF TIDAL POWER PLANT
4	MEASUREMENT & METROLOGY	3.5	SACHIN YADAV	POLYTECHNIC	3	1			WHAT IS METROLOGY? EXPLAIN WITH DIAGRAM DIFFERENTS TYPES OF LENEAR MEASURING INSTRUMENTS.	EXLAIN THE WORKING PRICIPLE OF VERNIER CALLIPAR AND MICROMETER.
5	FLUID MECHANICS	3.3	MOHD USMAN	POLYTECHNIC	3	1			EXPLAIN PASCAL'S LAW OF PRESSURE.	EXPLAIN DIFFERENT TYPES OF FLUIDS.
6	MATERIAL HANDLING SYSTEM	3.7.1	SANAJAY SINGH	POLYTECHNIC	3	1			EXPLAIN DIFFERENTS TYPES OF MH EQUIPMENTS.	WHY WE NEED OF MATERIALS HANDLING EQUIPMENTS?
7	THERMAL ENGG.	3.2	RAHUL MITTAL	POLYTECHNIC	3	1			WHAT IS THERMODYNAMICS AND APPLICATION?	EXPLAIN ZERO LAW OF THERMODYNAMICS.

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ASSIGNMENT QUESTIONS - UNIT II										
S.No.	**SUBJECT**	**CODE**	**FACULTY NAME**	**COURSE**	**SEM**	**UNIT**	**DOA**	**DOS**	**QUESTION 1**	**QUESTION 2**
1	MEASUREMENT & METROLOGY	BME701	SACHIN YADAV	B.TECH	7	2			Define Tranducer? Exlain Elastic and indirect type pressure transducers.	Exlpain types of strain gauges and their working.
2	ADDITIVE MANUFACTURING	BME071	MOHD USMAN	B.TECH	7	2			Explain with diagram Vat Photo Polymerization.	Explain Bed Fusion process with neat sketch.
3	RENEWABLE ENERGY RESOURCES	KOE074	SANAJAY SINGH	B.TECH	7	2			DEFINE FLATE PLATE COLLECTOR	EVACUATED TUBE COLLECTOR
4	MEASUREMENT & METROLOGY	3.5	SACHIN YADAV	POLYTECHNIC	3	2			WHAT IS ANGULAR MEASUREMENTS? EXPLAIN WITH DIAGRAM DIFFERENTS TYPES OF ANGULAR MEASURING INSTRUMENTS.	WHAT IS ADVANCED METROLOGY? GIVE BASIC CONCEPT OF LASER AND LED BASED DISTANCE MEASURING INSTRUMENTS.
5	FLUID MECHANICS	3.3	MOHD USMAN	POLYTECHNIC	3	2			EXLPAIN WITH DIAGRAM MANOMETER AND BURDAN TUBE.	GIVE THE CONCEPT OF TOTAL PRESSURE ON IMMERSED BODIES.
6	MATERIAL HANDLING SYSTEM	3.7.1	SANAJAY SINGH	POLYTECHNIC	3	2			EXLPAIN CONSTRUCTION AND WORKING OF BELT CONVEYORS, CHAIN CONVEYORS.	DEFINE SURFACE TRANSPORTATION EQUIPMENTS? EXLPAIN CONSTRUCTION AND WORKING OF POWERED TRUCK, TRACTORS AND AGV.
7	THERMAL ENGG.	3.2	RAHUL MITTAL	POLYTECHNIC	3	2			EXPLAIN BOYLE'S LAW, CHARLE' LAW OF THERMODYNEMICS.	WHAT IS KALVIN PLANKS STATETMENTS? ALSO EXPLAIN CARNOT ENGINE.

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ASSIGNMENT QUESTIONS - UNIT III										
S.No	**SUBJECT**	**CODE**	**F NAME**	**COURSE**	**SEM**	**UNIT**	**DOA**	**DOS**	**QUESTION 1**	**QUESTION 2**
1	MEASUREMENT & METROLOGY	BME701	SACHIN YADAV	B.TECH	7	3			Explain following- Thermometers, bimetallic thermocouples, thermistors and pyrometers.	What is Flow Measurement? Explain Hot Wire Anemometry, Laser Doppler Velocimetry, Rotameter.
2	ADDITIVE MANUFACTURING	BME071	MOHD USMAN	B.TECH	7	3			Explain Extrusion Based System with neat sketch.	Write limitation, application, advantages and disadvantages of EBS
3	RENEWABLE ENERGY RESOURCES	KOE074	SANAJAY SINGH	B.TECH	7	3			DEFINE SOLAR TOWER POWER STATION	EXPLAIN VAPOUR DOMINATED POWER PLANT
4	MEASUREMENT & METROLOGY	3.5	SACHIN YADAV	POLYTECHNIC	3	3			NA	NA
5	FLUID MECHANICS	3.3	MOHD USMAN	POLYTECHNIC	3	3			GIVE DIFFERENCE BETWEEN LAMINAR AND TURBULENT FLOW.	EXPLAIN THE TYPES OF FLUID FLOW.
6	MATERIAL HANDLING SYSTEM	3.7.1	SANAJAY SINGH	POLYTECHNIC	3	3			DEFINE HOISTING MACHINERY EQUIPMENTS? EXLPAIN CONSTRUCTION AND WORKING OF DIFFERENTIAL, ELECTRIC HOIST AND CRANES.	EXLPAIN CONSTRUCTION AND WORKING OF STAKERS. LIFT, FREIGHT ELEVATORS.
7	THERMAL ENGG.	3.2	RAHUL MITTAL	POLYTECHNIC	3	3			DRAW THE NECTCH SKECTCH THE PRESSURE ANDTEMP. DIAGRAM FOR STEAM.	WHAT IS BOILER? GIVE CLASSIFICATION OF BOILER.

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ASSIGNMENT QUESTIONS - UNIT IV										
S.No.	**SUBJECT**	**CODE**	**FACULTY**	**COURSE**	**SEM**	**UNIT**	**DOA**	**DOS**	**QUESTION 1**	**QUESTION 2**
1	MEASUREMENT & METROLOGY	BME701	SACHIN YADAV	B.TECH	7	4			What is Standards of linear measurement? Exlain Linear and angular measurements devices and systems.	Define Comparators? Explain Taylor's Principle of Gauge Design.
2	ADDITIVE MANUFACTURING	BME071	MOHD USMAN	B.TECH	7	4			Define and explain Direct Energy Deposition (DED).	Explain with diagram Laser Beam Melting (LBM) and SLM.
3	RENEWABLE ENERGY RESOURCES	KOE074	SANAJAY SINGH	B.TECH	7	4			EXPLAIN THE WORKING PRINCIPLE OF FULE CELLS	WHAT IS THERMO ELECTRICAL AND THERMO IONIC CONVERSIONS.
4	MEASUREMENT & METROLOGY	3.5	SACHIN YADAV	POLYTECHNIC	3	4			NA	NA
5	FLUID MECHANICS	3.3	MOHD USMAN	POLYTECHNIC	3	4			WHAT IS TURBINE? GIVE CLASSIFICATION OF TURBINE.	EXPLAIN CONSTUCTION AND WORKING OF PELTON WHEEL, FRANCIS AND KAPLAN TURBINE.
6	MATERIAL HANDLING SYSTEM	3.7.1	SANAJAY SINGH	POLYTECHNIC	3	4			EXPLAIN DIFFERENT COMPONENTS OF MH SYSTEM.	WXLAIN THE WORKING OF TRRESTING GEAR ANG BRAKE.
7	THERMAL ENGG.	3.2	RAHUL MITTAL	POLYTECHNIC	3	4			EXPLAIN WITH DIAGRAM LOCOMOTIVE AND BABCOCK BOILER.	WHAT IS DRAUGHT SYSTEM? EXPLAIN .

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ASSIGNMENT QUESTIONS - UNIT V										
S.No.	**SUBJECT**	**CODE**	**FACULTY**	**COURSE**	**SEM**	**UNIT**	**DOA**	**DOS**	**QUESTION 1**	**QUESTION 2**
1	MEASUREMENT & METROLOGY	BME701	SACHIN YADAV	B.TECH	7	5			Define Interferometry? Exlain quantitative evaluation of surface roughness and its measurement.	Explain following: Limits, Fits &Tolerance and Surface roughness.
2	ADDITIVE MANUFACTURING	BME071	MOHD USMAN	B.TECH	7	5			WHY AEROSPACE EMPLOYS ADDTIVE MFG. PROCESS USE.	GIVE THE NOMENCLATURE OF AM MACHINE.
3	RENEWABLE ENERGY RESOURCES	KOE074	SANAJAY SINGH	B.TECH	7	5			EXPLAIN OTEC	DEFINE BIOMASS RESOURCES.
4	MEASUREMENT & METROLOGY	3.5	SACHIN YADAV	POLYTECHNIC	3	5			NA	NA
5	FLUID MECHANICS	3.3	MOHD USMAN	POLYTECHNIC	3	5			WHAT IS HYDROLIC SYSTEM? EXPLAIN OPERATION AND APPLICATION OF HYDRAULIC BRAKE, HYDRAULIC PRESS.	WHAT IS THE NEED OF HYDRO POWER PLANT? GIVE CLASSIFICATION OF THIS.
6	MATERIAL HANDLING SYSTEM	3.7.1	SANAJAY SINGH	POLYTECHNIC	3	5			EXPLAIN FOLLOWING- HOISTING MECHANISM, LIFTING MECHANISM, TRAVELING MECHANISM.	WHAT IS THE SELECTION PROCESS OF MH EWIOMENTS? EXLAIN.
7	THERMAL ENGG.	3.2	RAHUL MITTAL	POLYTECHNIC	3	5			WHAT IS TURBINE? GIVE DIFFERENCE BETWEEN IMPLUSE AND REACTION TURBINE.	GIVE WORKING PRINCPLE OF PARSON'S RECTION TURBINE.