BHUBANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK MATHEMA AND SCIENCE DEPARTMENT ACADEMIC PLAN

BRANCH-CIVIL & MECHANICAL (1st SEM)

SUBJECT: - ENGINEERING PHYSICS (Theodo)

FACULTY NAME:-

Dr Bismonbhar menent

SESSION-2020-21(WINTER)

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Mr. Drachum Ku. Gajanda.

Semester from: date. 9/11 / 20 >v To

To date. / /

No of week Available:

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	45	4	PERIODS AVAILABLE
	UNIT 2 - SCALARS AND VECTORS 2.1 Scalar and Vector quantities (definition and concept), Representation of a Vector – examples, types of vectors. 2.2 Triangle and Parallelogram law of vector Addition (Statement only). Simple Numerical. 2.3 Resolution of Vectors – Simple Numericals on Horizontal and Vertical compensates. 2.4 Vector multiplication (scalar product and vector product of vectors).	1.1 Physical quantities - (Definition) 1.2 Definition of fundamental and derived units, systems of units (FPS, CGS, MKS and SI units). 1.3 Definition of dimension and Dimensional formulae of physical quantities. 1.4 Dimensional equations and Principle of homogeneity. 1.5 Checking the dimensional correctness of Physical relations.	TOPIC TO BE COVERED
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6.6 Derivation of Relation between Velocity, Frequency and Wavelength of a wave 6.7 Ultrasonics — Definition, Properties & Applications	Definition, Examples & Comparison. 6.5 Definition of different wave parameters (Amplitude, Wavelength, Frequency, Time Period.	6.3. Wave motion – Definition & Concept. 6.4 Transverse and Longitudinal wave motion –	Examples. 6.2 Expression (Formula/Equation) for displacement, velocity, acceleration of a body/ particle in SHM	UNIT 6 - OSCILLATIONS AND WAVES 6.1 Simple Harmonic Motion (SHM) - Definition &	only).	derivation - Only Explanation). 5.7 Kepler's Laws of Planetary Motion (Statement
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UNIT 7 - HEAT AND THERMODYNAMICS 7.1 Heat and Temperature - Definition & Difference 7.2 Units of Heat (FPS, CGS, MKS & S). 4 7.3 Specific Heat (concept, definition, unit, dimension and simple numerical) 7.4 Change of state (concept), Latent Heat (concept, definition, unit, dimension and simple numerical) 7.7 Coefficient of linear, superficial and cubical expansion of Solids (Concept) 7.7 Coefficient of linear, superficial and cubical expansions of Solids (Concept) 7.7 Coefficient of linear, superficial and cubical expansions of Solids (Concept) 7.1 Relation between a, \$\beta\$ Y 7.9 Work and Heat - Concept & Relation. 7.10 Joule's Mechanical Equivalent of Heat (Definition, Unit) 7.11 First Law of Thermodynamics (Statement and concept only) 8.1 Reflection & Refraction - Definition. 8.2 Laws of reflection and refraction (Statement only) 8.3 Refractive index - Definition, Formula & Simple numerical. 8.4 Critical Angle and Total internal reflection - Concept, Definition & Concept, Definition & Formula & Formula only - NO derivation). 8.6 Fiber Optics - Definition, Properties & Applications UNIT 9 - ELECTROSTATICS & MAGNETOSTATICS 9.1 Electrostatics - Definition & Concept. 9.3 Absolute & Relative Permittivity (£) - Definition, Relation & Unit. 9.4 Hectric potential and Electric Potential difference (Definition, Formula & Unit of Electric Field, Electric Field intensity (£) - Definition, Formula & Unit of effective/Combined/total capacitance & Simple anumericals).		
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		UNIT 7 - HEAT AND THERMODYNAMICS
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		 Definition & Units.
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		8.2 Laws of reflection and refraction (Statement only)
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		Explanation 8.5 Refraction through Prism (Ray Diagram &
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		9.6 Capacitance - Definition, Formula & Unit
		UNIT 9 - ELECTROSTATICS & MAGNETOSTATICS
		9.7 Series and Parallel combination of Capacitors (No deri
		Formula for effective/Combined/total capacitance & Simp
9.8 Magnet, Properties of a magnet.	· •	9.8 Magnet, Properties of a magnet.



BHUBANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-(2020-21- SUMMER)

Lesson Plan

SEMESTER: 2nd SEM BRANCH/SEC: ETC & AEGI (Sec-I) **SUBJECT:-** ENGINEERING PHYSICS

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BHUBANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK

DEPARTMENT OF MATHEMATICS AND SCIENCE

ACADEMIC SESSION-(2020-21- SUMMER)

Lesson Plan

SEMESTER: 2nd SEM BRANCH/SEC: Cong. S. (. & D7 (See H) SUBJECT:- ENGINEERING PHYSICS

FACULTY NAME: In Biswambheur Moheunty) and Preaclash Kuman Grégeretra

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