

SGGDC PILER
Department of Physics
Course Outcomes (For all VI
Semesters)

Course Code	Course Name	Course Objectives	Course Outcomes
3-1-116 (Credits: 04 Hours per week: 04)	I Semester: Physics Paper I: Mechanics & Properties of Matter Unit I: 1. Vector Analysis Unit II: 2. Mechanics of particles Unit III: 3. Mechanics of Rigid bodies 4. Mechanics of continuous media Unit IV: 5. Central forces Unit V: 6. Special theory of relativity	The main objectives of the course are <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws and principles in Vector Analysis, Mechanics of particles, Mechanics of Rigid bodies, Central forces and Special theory of relativity. ➤ To understand the terms, facts, concepts, definitions, laws, principles and theorems in Vector Analysis, Mechanics of particles, Mechanics of Rigid bodies, Central forces and Special theory of relativity. ➤ To apply the knowledge and understanding of Vector Analysis, Mechanics of particles, Mechanics of Rigid bodies, Central forces and 	After the successful completion of the course the learning outcomes are <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in Vector Analysis, Mechanics of particles, Mechanics of Rigid bodies, Central forces and Special theory of relativity. ➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions, laws, principles and processes in Vector Analysis, Mechanics of particles, Mechanics of Rigid bodies, Central forces and Special theory of relativity. ➤ They can analyze, interprets, predicts, relates and realizes the various phenomena in Vector Analysis, Mechanics of particles,

		<p>Special theory of relativity.</p> <ul style="list-style-type: none"> ➤ To acquire the skill in practical aspects of handling the apparatus, recording the observations, drawing diagrams and graphs ➤ To develop scientific interest. ➤ To develop scientific attitude. ➤ To develop good personality traits 	<p>Mechanics of Rigid bodies, Central forces and Special theory of relativity.</p> <ul style="list-style-type: none"> ➤ They could check the apparatus, perform experiments, records the readings, draw the diagrams and graphs. ➤ The students develop scientific interest by questioning, reading, discussing and debating. ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self-confidence.
<p>3-2-116 (Credits: 04Hours per week: 04)</p>	<p>II Semester: Physics Paper II: Waves & Oscillations</p> <p>Unit I :</p> <ol style="list-style-type: none"> 1. Simple Harmonic oscillations 	<p>The main objectives of the course are</p> <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws and principles in Simple Harmonic oscillations, Damped and forced oscillations, Complex vibrations, Vibrating strings, Vibrations of bars 	<p>After the successful completion of the course the learning outcomes are</p> <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in Simple Harmonic oscillations, Damped and forced oscillations,

	<p>Unit II: 2. Damped and forced oscillations</p> <p>Unit III: 3. Complex vibrations</p> <p>Unit IV: 4. Vibrating strings 5. Vibrations of bars</p> <p>Unit V: 6. Ultrasonics</p>	<p>and Ultrasonics.</p> <ul style="list-style-type: none"> ➤ To understand the terms, facts, concepts, definitions, laws, principles and theorems in Simple Harmonic oscillations, Damped and forced oscillations, Complex vibrations, Vibrating strings, Vibrations of bars and Ultrasonics. ➤ To apply the knowledge and understanding of Simple Harmonic oscillations, Damped and forced oscillations, Complex vibrations, Vibrating strings, Vibrations of bars and Ultrasonics. ➤ To acquire the skill in practical aspects of handling the apparatus, recording the observations, drawing diagrams and graphs related to the practicals in Simple Harmonic oscillations, Damped and forced oscillations, Complex vibrations, Vibrating strings, Vibrations of bars 	<p>Complex vibrations, Vibrating strings, Vibrations of bars and Ultrasonics.</p> <ul style="list-style-type: none"> ➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions, laws, principles and processes in Simple Harmonic oscillations, Damped and forced oscillations, Complex vibrations, Vibrating strings, Vibrations of bars and Ultrasonics. ➤ They can analyze, interpret, predict, relate and realize the various phenomena in Simple Harmonic oscillations, Damped and forced oscillations, Complex vibrations, Vibrating strings, Vibrations of bars and Ultrasonics. ➤ They could check the apparatus, perform experiments, record the readings, draw the diagrams and graphs related to the practicals in Simple Harmonic oscillations, Damped and forced oscillations, Complex vibrations, Vibrating
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		<p>and Ultrasonics.</p> <ul style="list-style-type: none"> ➤ To develop scientific interest. ➤ To develop scientific attitude. ➤ To develop good personality traits 	<p>strings, Vibrations of bars an dUltrasonics.</p> <ul style="list-style-type: none"> ➤ The students develop scientific interest by questioning, reading, discussing and debating. ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self-confidence.
<p>3-3-116 (Credits: 04Hours per week: 04)</p>	<p><u>III Semester:</u> Physics Paper III: Optics and Laser Physics</p> <p>Unit I: 1. Aberrations</p> <p>Unit II: 2. Interference</p> <p>Unit III: 3. Diffraction</p> <p>Unit IV:</p>	<p>The main objectives of the course are</p> <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws, principles and processes in Aberrations, Interference, Diffraction, Polarization, Lasers & Holography and Fiber optics. ➤ To understand the terms, facts, concepts, definitions, laws, principles and processes in Aberrations, Interference, Diffraction, Polarization, Lasers & 	<p>After the successful completion of the course the learning outcomes are</p> <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in Aberrations, Interference, Diffraction, Polarization, Lasers & Holography and Fiber optics. ➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions,

	<p>4. Polarization</p> <p>Unit V:</p> <p>5. Lasers, Holography and Fiber optics</p>	<p>Holography and Fiber optics.</p> <ul style="list-style-type: none"> ➤ To apply the knowledge and understanding of Aberrations, Interference, Diffraction, Polarization, Lasers & Holography and Fiber optics. ➤ To acquire the skill in practical aspects of handling the apparatus, recording the observations, drawing diagrams and graphs ➤ To develop scientific interest. ➤ To develop scientific attitude. ➤ To develop good personality traits 	<p>laws, principles and processes in Aberrations, Interference, Diffraction, Polarization, Lasers & Holography and Fiber optics.</p> <ul style="list-style-type: none"> ➤ They can analyze, interpret, predict, relate and realize the various phenomena in Aberrations, Interference, Diffraction, Polarization, Lasers & Holography and Fiber optics. ➤ They could check the apparatus, perform experiments, record the readings, draw the diagrams and graphs. ➤ The students develop scientific interest by questioning, reading, discussing and debating. ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self-confidence.
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<p>3-4-116 (Credits: 04Hours per week: 04)</p>	<p>IV Semester: Physics Paper IV: Thermodynamics & Radiation Physics</p> <p>Unit I: 1. Kinetic theory of gases</p> <p>Unit II: 2. Thermodynamics</p> <p>Unit III: 3. Thermodynamic potentials and Maxwell's equations</p> <p>Unit IV: 4. Low temperature Physics</p> <p>Unit V: 5. Quantum theory of radiation</p>	<p>The main objectives of the course are</p> <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws, principles and processes in Kinetic theory of gases, Thermodynamics, Diffraction, Thermodynamic potentials and Maxwell's equations, Low temperature Physics and Quantum theory of radiation. ➤ To understand the terms, facts, concepts, definitions, laws, principles and processes in Kinetic theory of gases, Thermodynamics, Diffraction, Thermodynamic potentials and Maxwell's equations, Low temperature Physics and Quantum theory of radiation. ➤ To apply the knowledge and understanding of Kinetic theory of gases, Thermodynamics, Diffraction, Thermodynamic potentials and Maxwell's equations, Low temperature Physics and Quantum theory of radiation. 	<p>After the successful completion of the course the learning outcomes are</p> <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in Kinetic theory of gases, Thermodynamics, Diffraction, Thermodynamic potentials and Maxwell's equations, Low temperature Physics and Quantum theory of radiation. ➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions, laws, principles and processes in Kinetic theory of gases, Thermodynamics, Diffraction, Thermodynamic potentials and Maxwell's equations, Low temperature Physics and Quantum theory of radiation. ➤ They can analyze, interprets, predicts, relates and realizes the various phenomena in Kinetic theory of gases, Thermodynamics, Diffraction, Thermodynamic potentials and Maxwell's equations, Low temperature Physics and
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		<ul style="list-style-type: none"> ➤ To acquire the skill in practical aspects of handling the apparatus, recording the observations, drawing diagrams and graphs related to the practicals of Kinetic theory of gases, Thermodynamics, Diffraction, Thermodynamic potentials and Maxwell's equations, Low temperature Physics and Quantum theory of radiation. ➤ To develop scientific interest. ➤ To develop scientific attitude. ➤ To develop good personality traits 	<p>Quantum theory of radiation.</p> <ul style="list-style-type: none"> ➤ They could check the apparatus, perform experiments, records the readings, draw the diagrams and graphs related to the practicals of Kinetic theory of gases, Thermodynamics, Diffraction, Thermodynamic potentials and Maxwell's equations, Low temperature Physics and Quantum theory of radiation. ➤ The students develop scientific interest by questioning, reading, discussing and debating. ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self-confidence.
<p>3-5-127 (Credits: 04Hours per week: 03)</p>	<p><u>V Semester:</u> Physics Paper V: Electricity, Magnetism & Electronics</p> <p>Unit I: 1. Electric field intensity and</p>	<p>The main objectives of the course are</p> <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws, principles and processes in Electric field intensity and potential, 	<p>After the successful completion of the course the learning outcomes are</p> <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in

	<p>potential 2. Dielectrics</p> <p>Unit II: 3. Electric and magnetic fields 4. Electromagnetic induction</p> <p>Unit III: 5. Alternating currents and electromagnetic waves 6. Maxwell's equations</p> <p>Unit IV: 7. Basic electronics</p> <p>Unit V: 8. Digital electronics</p>	<p>Dielectrics, Electric and magnetic fields, Electromagnetic induction, Alternating currents and electromagnetic waves, Maxwell's equations, Basic electronics and Digital electronics.</p> <p>➤ To understand the terms, facts, concepts, definitions, laws, principles and processes in Electric field intensity and potential, Dielectrics, Electric and magnetic fields, Electromagnetic induction, Alternating currents and electromagnetic waves, Maxwell's equations, Basic electronics and Digital electronics.</p> <p>➤ To apply the knowledge and understanding of Electric field intensity and potential, Dielectrics, Electric and magnetic fields, Electromagnetic induction, Alternating currents and electromagnetic waves, Maxwell's equations, Basic electronics and Digital electronics.</p> <p>➤ To acquire the skill in practical aspects of handling the apparatus,</p>	<p>Electric field intensity and potential, Dielectrics, Electric and magnetic fields, Electromagnetic induction, Alternating currents and electromagnetic waves, Maxwell's equations, Basic electronics and Digital electronics.</p> <p>➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions, laws, principles and processes in Electric field intensity and potential, Dielectrics, Electric and magnetic fields, Electromagnetic induction, Alternating currents and electromagnetic waves, Maxwell's equations, Basic electronics and Digital electronics.</p> <p>➤ They can analyze, interpret, predict, relate and realize the various phenomena in Electric field intensity and potential, Dielectrics, Electric and magnetic fields, Electromagnetic induction, Alternating currents and electromagnetic waves, Maxwell's equations, Basic electronics and Digital electronics.</p>
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		<p>recording the observations, drawing diagrams, circuits and graphs related to the practicals of Electric field intensity and potential, Dielectrics, Electric and magnetic fields, Electromagnetic induction, Alternating currents and electromagnetic waves, Maxwell's equations, Basic electronics and Digital electronics.</p> <ul style="list-style-type: none"> ➤ To develop scientific interest. ➤ To develop scientific attitude. ➤ To develop good personality traits 	<ul style="list-style-type: none"> ➤ They could check the apparatus, perform experiments, records the readings, draw the diagrams, circuits and graphs related to the practicals of Electric field intensity and potential, Dielectrics, Electric and magnetic fields, Electromagnetic induction, Alternating currents and electromagnetic waves, Maxwell's equations, Basic electronics and Digital electronics. ➤ The students develop scientific interest by questioning, reading, discussing and debating. ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self-confidence.
<p>3-5-128 (Credits: 04Hours per week: 03)</p>	<p>V Semester: Physics Paper VI: Modern Physics</p> <p>Unit I: 1. Atomic and molecular physics</p>	<p>The main objectives of the course are</p> <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws, principles and processes in Atomic and molecular physics, Matter waves & Uncertainty 	<p>After the successful completion of the course the learning outcomes are</p> <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in Atomic and molecular physics,

	<p>Unit II: 2. Matter waves & Uncertainty Principle</p> <p>Unit III: 3. Quantum (wave) mechanics</p> <p>Unit IV: 4. General Properties of Nuclei 5. Radioactivity decay</p> <p>Unit V: 6. Crystal Structure 7. Superconductivity</p>	<p>Principle, Quantum (wave) mechanics, General Properties of Nuclei, Radioactivity decay, Maxwell's equations, Crystal Structure and Superconductivity.</p> <p>➤ To understand the terms, facts, concepts, definitions, laws, principles and processes in Atomic and molecular physics, Matter waves & Uncertainty Principle, Quantum (wave) mechanics, General Properties of Nuclei, Radioactivity decay, Maxwell's equations, Crystal Structure and Superconductivity.</p> <p>➤ To apply the knowledge and understanding of Electric field intensity and potential, Dielectrics, Atomic and molecular physics, Matter waves & Uncertainty Principle, Quantum (wave) mechanics, General Properties of Nuclei, Radioactivity decay, Maxwell's equations, Crystal Structure and Superconductivity.</p>	<p>Matter waves & Uncertainty Principle, Quantum (wave) mechanics, General Properties of Nuclei, Radioactivity decay, Maxwell's equations, Crystal Structure and Superconductivity.</p> <p>➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions, laws, principles and processes in Atomic and molecular physics, Matter waves & Uncertainty Principle, Quantum (wave) mechanics, General Properties of Nuclei, Radioactivity decay, Maxwell's equations, Crystal Structure and Superconductivity.</p> <p>➤ They can analyze, interpret, predict, relate and realize the various phenomena in Electric field intensity and potential, Dielectrics, Atomic and molecular physics, Matter waves & Uncertainty Principle, Quantum (wave) mechanics, General Properties of Nuclei, Radioactivity decay, Maxwell's equations,</p>
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		<ul style="list-style-type: none"> ➤ To acquire the skill in practical aspects of handling the apparatus, recording the observations, drawing diagrams, circuits and graphs related to the practicals of Atomic and molecular physics, Matter waves & Uncertainty Principle, Quantum (wave) mechanics, General Properties of Nuclei, Radioactivity decay, Maxwell's equations, Crystal Structure and Superconductivity. ➤ To develop scientific interest. ➤ To develop scientific attitude. ➤ To develop good personality traits 	<p style="text-align: center;">Crystal Structure and Superconductivity.</p> <ul style="list-style-type: none"> ➤ They could check the apparatus, perform experiments, records the readings, draw the diagrams, circuits and graphs related to the practicals of Atomic and molecular physics, Matter waves & Uncertainty Principle, Quantum (wave) mechanics, General Properties of Nuclei, Radioactivity decay, Maxwell's equations, Crystal Structure and Superconductivity. ➤ The students develop scientific interest by questioning, reading, discussing and debating. ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self-confidence.
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<p>3-6-113 (Credits: 04Hours per week: 03)</p>	<p>VI Semester: Physics Paper VII (B): Elective Paper: Material Science</p> <p>Unit I: 1. Materials and Crystal Bonding</p> <p>Unit II: 2. Defects and Diffusion in Materials</p> <p>Unit III: 3. Mechanical Behavior of Materials</p> <p>Unit IV: 4. Magnetic Materials</p> <p>Unit V: 5. Dielectric Materials</p>	<p>The main objectives of the course are</p> <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws, principles and processes in Materials and Crystal Bonding, Defects and Diffusion in Materials, Mechanical Behavior of Materials, Magnetic Materials and Dielectric Materials. ➤ To understand the terms, facts, concepts, definitions, laws, principles and processes in Materials and Crystal Bonding, Defects and Diffusion in Materials, Mechanical Behavior of Materials, Magnetic Materials and Dielectric Materials. ➤ To apply the knowledge and understanding of Materials and Crystal Bonding, Defects and Diffusion in Materials, Mechanical Behavior of Materials, Magnetic Materials and Dielectric Materials. 	<p>After the successful completion of the course the learning outcomes are</p> <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in Materials and Crystal Bonding, Defects and Diffusion in Materials, Mechanical Behavior of Materials, Magnetic Materials and Dielectric Materials. ➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions, laws, principles and processes in Materials and Crystal Bonding, Defects and Diffusion in Materials, Mechanical Behavior of Materials, Magnetic Materials and Dielectric Materials. ➤ They can analyze, interprets, predicts, relates and realizes the various phenomena in Materials and Crystal Bonding, Defects and Diffusion in Materials, Mechanical Behavior of Materials, Magnetic Materials and Dielectric Materials.
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		<ul style="list-style-type: none"> ➤ To acquire the skill in practical aspects of handling the apparatus, recording the observations, drawing diagrams and graphs related to the practicals of Materials and Crystal Bonding, Defects and Diffusion in Materials, Mechanical Behavior of Materials, Magnetic Materials and Dielectric Materials. ➤ To develop scientific interest. ➤ To develop scientific attitude. ➤ To develop good personality traits 	<ul style="list-style-type: none"> ➤ They could check the apparatus, perform experiments, records the readings, draw the diagrams and graphs related to the practicals of Materials and Crystal Bonding, Defects and Diffusion in Materials, Mechanical Behavior of Materials, Magnetic Materials and Dielectric Materials. ➤ The students develop scientific interest by questioning, reading, discussing and debating. ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self–confidence.
<p>3-6-113A (Credits: 04Hours; per week: 03)</p>	<p><u>VI Semester:</u> Elective Paper VIII-B-1 : Fundamentals of Nanoscience</p> <p>Unit I : 1. Background and history</p> <p>Unit II: 2. Classification of</p>	<p>The main objectives of the course are</p> <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws, principles and processes in Background and history, Classification of Nanomaterials, Macromolecules, Molecular & Nanoelectronics and Biomaterials. 	<p>After the successful completion of the course the learning outcomes are</p> <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in Background and history, Classification of Nanomaterials, Macromolecules, Molecular &

	<p style="text-align: center;">Nanomaterials</p> <p>Unit III: 3. Macromolecules</p> <p>Unit IV: 4. Molecular & Nanoelectronics</p> <p>Unit V: 5. Biomaterials</p>	<ul style="list-style-type: none"> ➤ To understand the terms, facts, concepts, definitions, laws, principles and processes in Background and history, Classification of Nanomaterials, Macromolecules, Molecular & Nanoelectronics and Biomaterials. ➤ To apply the knowledge and understanding of Background and history, Classification of Nanomaterials, Macromolecules, Molecular & Nanoelectronics and Biomaterials. ➤ To acquire the skill in practical aspects of handling the apparatus, recording the observations, drawing diagrams and graphs related to the practicals of Background and history, Classification of Nanomaterials, Macromolecules, Molecular & Nanoelectronics and Biomaterials. ➤ To develop scientific interest. 	<p style="text-align: center;">Nanoelectronics and Biomaterials.</p> <ul style="list-style-type: none"> ➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions, laws, principles and processes in Background and history, Classification of Nanomaterials, Macromolecules, Molecular & Nanoelectronics and Biomaterials. ➤ They can analyze, interprets, predicts, relates and realizes the various phenomena in Background and history, Classification of Nanomaterials, Macromolecules, Molecular & Nanoelectronics and Biomaterials. ➤ They could check the apparatus, perform experiments, records the readings, draw the diagrams and graphs related to the practicals of Background and history, Classification of Nanomaterials, Macromolecules, Molecular & Nanoelectronics and Biomaterials. ➤ The students develop scientific interest by questioning, reading,
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		<ul style="list-style-type: none"> ➤ To develop scientific attitude. ➤ To develop good personality traits 	<p>discussing and debating.</p> <ul style="list-style-type: none"> ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self–confidence.
<p>3-6-113B (Credits: 04Hours per week: 03)</p>	<p><u>VI Semester:</u> Cluster Elective Paper VIII- B-2: Synthesis and Characterization of Nanomaterials</p> <p>Unit I : 1. Nanomaterials synthesis</p> <p>Unit II: 2. Classification of materials</p> <p>Unit III: 3. Glasses</p> <p>Unit IV: 4. Liquid Crystals</p> <p>Unit V: 5. Characterization Methods</p>	<p>The main objectives of the course are</p> <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws, principles and processes in Nanomaterials synthesis, Classification of materials, Glasses, Liquid Crystals and Characterization Methods. ➤ To understand the terms, facts, concepts, definitions, laws, principles and processes in Nanomaterials synthesis, Classification of materials, Glasses, Liquid Crystals and Characterization Methods. ➤ To apply the knowledge and 	<p>After the successful completion of the course the learning outcomes are</p> <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in Nanomaterials synthesis, Classification of materials, Glasses, Liquid Crystals and Characterization Methods. ➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions, laws, principles and processes in Nanomaterials synthesis, Classification of materials, Glasses, Liquid Crystals and Characterization Methods. ➤ They can analyze, interprets,

		<p>understanding of Nanomaterials synthesis, Classification of materials, Glasses, Liquid Crystals and Characterization Methods.</p> <ul style="list-style-type: none"> ➤ To acquire the skill in practical aspects of handling the apparatus, recording the observations, drawing diagrams and graphs related to the practicals of Nanomaterials synthesis, Classification of materials, Glasses, Liquid Crystals and Characterization Methods. ➤ To develop scientific interest. ➤ To develop scientific attitude. ➤ To develop good personality traits 	<p>predicts, relates and realizes the various phenomena in Nanomaterials synthesis, Classification of materials, Glasses, Liquid Crystals and Characterization Methods.</p> <ul style="list-style-type: none"> ➤ They could check the apparatus, perform experiments, records the readings, draw the diagrams and graphs related to the practicals of Nanomaterials synthesis, Classification of materials, Glasses, Liquid Crystals and Characterization Methods. ➤ The students develop scientific interest by questioning, reading, discussing and debating. ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self-confidence.
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<p>3-6-113C (Credits: 04 Hours per week: 03)</p>	<p>VI Semester: Cluster Elective Paper VIII- B-3: Applications of Nanomaterials and Devices</p> <p>Unit I: 1. Optical properties</p> <p>Unit II: 2. Electrical transport</p> <p>Unit III: 3. Applications</p> <p>Unit IV: 4. Nanoelectronics</p> <p>Unit V: 5. Nanobiotechnology and Medical applications</p>	<p>The main objectives of the course are</p> <ul style="list-style-type: none"> ➤ To acquire the knowledge of terms, facts, concepts, definitions, laws, principles and processes in Optical properties, Electrical transport, Applications, Nanoelectronics and Nanobiotechnology and Medical applications of Nanomaterials and Devices. ➤ To understand the terms, facts, concepts, definitions, laws, principles and processes in Optical properties, Electrical transport, Applications, Nanoelectronics and Nanobiotechnology and Medical applications of Nanomaterials and Devices. ➤ To apply the knowledge and understanding of Optical properties, Electrical transport, Applications, Nanoelectronics and Nanobiotechnology and Medical applications of Nanomaterials and Devices. 	<p>After the successful completion of the course the learning outcomes are</p> <ul style="list-style-type: none"> ➤ The students could able to recall and recognize the different terms, facts, concepts, definitions, laws, principles and processes in Optical properties, Electrical transport, Applications, Nanoelectronics and Nanobiotechnology and Medical applications of Nanomaterials and Devices. ➤ The students could explain, describe, illustrate, differentiate, compare, relate and identify the terms, facts, concepts, definitions, laws, principles and processes in Optical properties, Electrical transport, Applications, Nanoelectronics and Nanobiotechnology and Medical applications of Nanomaterials and Devices. ➤ They can analyze, interprets, predicts, relates and realizes the various phenomena in Optical properties, Electrical transport, Applications, Nanoelectronics and Nanobiotechnology and Medical applications of
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		<ul style="list-style-type: none"> ➤ To acquire the skill in practical aspects of handling the apparatus, recording the observations, drawing diagrams and graphs related to the practicals of Optical properties, Electrical transport, Applications, Nanoelectronics and Nanobiotechnology and Medical applications of Nanomaterials and Devices. ➤ To develop scientific interest. ➤ To develop scientific attitude. ➤ To develop good personality traits 	<p>Nanomaterials and Devices.</p> <ul style="list-style-type: none"> ➤ They could check the apparatus, perform experiments, records the readings, draw the diagrams and graphs related to the practicals of Optical properties, Electrical transport, Applications, Nanoelectronics and Nanobiotechnology and Medical applications of Nanomaterials and Devices. ➤ The students develop scientific interest by questioning, reading, discussing and debating. ➤ The student develop scientific attitude through proper recording, interpretation, precise statements, judgment and independent thinking. ➤ The students develop personality traits such as Punctuality, faithfulness and self-confidence.
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