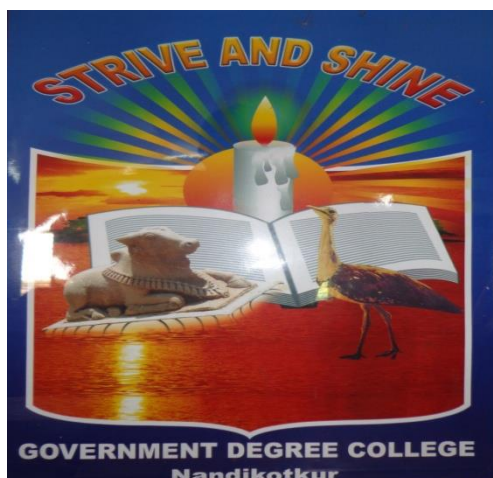


Government Degree College, Nandikotkur



1.1.1: The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

CURRICULUM PLAN 2018-19

CURRICULAR PLAN - GOVT DEGREE COLLEGE, NANDIKOTKUR

Curricular plan for the Semester: I for the Academic Year: 2018-2019

Sub: Physics Paper: I Title: mechanics & Properties of matter

Name of the Lecturer: J. mutalidhas Year: I Class: B.Sc mps Medium: English

S.No	Month	Week	Hours Available	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	June	01	04	unit-I Scalar and vector fields Gradient of a scalar field and its physical significance divergence of vector field	Equipotential surfaces Gravitational field	explanation								
		2	04	Physical significance of divergence of a vector field curl of vector field and its physical significance	electric field isolating magnetic motive force	discussion								
		3	04	Vector integration, Gauss theorem and Stokes theorem	Vector differentiation Green's theorem	explanation				Problem solving method				

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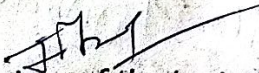
CURRICULAR PLAN - GOVT DEGREE COLLEGE, NANDIKOTKUR

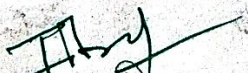
Curricular plan for the Semester: I for the Academic Year: 2018-2019

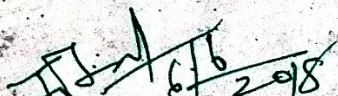
Sub: Physics Paper: I Title: Mechanics & Properties of matter

Name of the Lecturer: J. muralidhar Year: I Class: B.Sc. in P.C.S. Medium: English

S.No	Month	Week	Hours Available	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co- Curricular Activity				Remarks
						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	June	4	04	Unit-II: laws of motion, motion of variable mass system, motion of rocket	Internal & non internal reference frames	Question & answer method								
	July	1	04	conservation of energy and momentum, collisions in two and three dimensions	Centre of mass and centre of gravity	Discussion								
		2	04	concept of impact-Rutherford scattering cross-section Rutherford scattering	In elastic collisions, Coriolis force	Discussion								


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CURRICULAR PLAN - GOVT DEGREE COLLEGE, NANDIKOTKUR

Curricular plan for the Semester: I for the Academic Year: 2018-2019

Sub: Physics Paper: I Title: Mechanics & Properties of matter

Name of the Lecturer: J. Malidhar Year: I Class: BSc. mps Medium: English

S.No	Month	Week	Hours Available	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	July	03	04	Unit-III Rigid body, Rotational kinematic relations, equation of motion for a rotating body	combined translation and rotational motion of a rigid body	explanation								
		4	04	Angular momentum, Euler equations and its applications	inertia tensor	explanation								
	Aug	1	04	Precession of a top, Gyroscope, Precession of the equinoxes	Spinning about freely falling symmetric top	discussion				Preparation of chart				

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6/6/2018

CURRICULAR PLAN - GOVT DEGREE COLLEGE, NANDIKOTKUR

Curricular plan for the Semester: I for the Academic Year: 2018-2019

Sub: Physics Paper: I Title: Mechanics & Properties of matter

Name of the Lecturer: J. muralidhar Year: I Class: BSc mPee Medium: English

S.No	Month	Week	Hours Available	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co- Curricular Activity				Remarks
						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	Aug	2	04	Elastic constants and their relations Poissons ratio and Poissons ratio in terms of σ , τ , N	Mechanical Properties of materials	Discussion								
		3	04	classification of beams, types of bending, point load, distributed load		experiment				chart preparation				
		4	04	shearing force and bending moment sign conventions unit IV Central forces - deflection	electrostatic force	Discussion				study Project				

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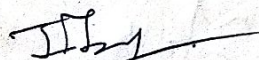
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Curricular plan for the Semester: I for the Academic Year: 2018-2019

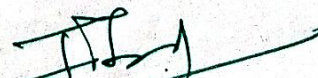
Sub: Physics Paper: I Title: Mechanics and Properties of Matter

Name of the Lecturer: J. Muralidhar Year: I Class: B.Sc. P.P.S. Medium: English

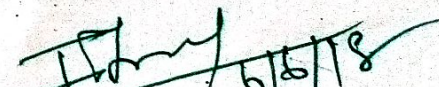
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						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	sep	1	04	characteristics of central forces, conservative nature of central forces, conservative force as a negative gradient of Potential energy	cul of a conservative force	explanation				seminar				
		2	04	equation of motion under a central force Kepler's laws	motion in fixed plane	question & answer method								
		3	04	Kepler's I law, II law and III law, motion of satellites	Geo-Centric satellite	explanation				chart Relation				



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CURRICULAR PLAN - GOVT DEGREE COLLEGE, NANDIKOTKUR

Curricular plan for the Semester: I for the Academic Year: 2018-2019

Sub: Physics Paper: I Title: Mechanics and Properties of Matter

Name of the Lecturer: J. Muralidhar Year: I Class: BSc. PPS Medium: English

S.No	Month	Week	Hours Available	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	SEP	4	04	Idea of GPs <u>Unit II</u> Introduction to relativity Galilean relativity, absolute frames	Galilean invariance	Discussion								
	OCT	1	04	michelson-morley experiments, negative results Postulates of special theory of relativity	Interference phenomena	explanation				short presentation				
		3	04	length contraction, Time dilation	concept of simultaneity	explanation				Assignment				

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CURRICULAR PLAN - GOVT DEGREE COLLEGE, NANDIKOTKUR

Curricular plan for the Semester: III for the Academic Year: 2018-2019

Sub: Physics Paper: III Title: wave optics

Name of the Lecturer: J. m. s. dhar Year: II Class: B.Sc. in Phys. Medium: english

S.No	Month	Week	Hours Available	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co- Curricular Activity				Remarks
						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	June	1	04	<u>Unit-I</u> Introduction to Aberrations monochromatic aberrations spherical aberrations	lenses - Image formation	explanation				study project				
		2	04	methods of minimizing spherical aberrations, coma & Astigmatism	Ramsdon eye Piece	explanation				group discussion				
		3	04	curvature of field, distortion, chromatic aberration, achromatic doublet	Huygen eye Piece	question answer method				quiz				

J. m. s. dhar
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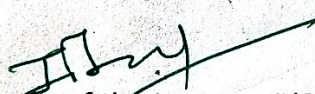
Curricular plan for the Semester: I for the Academic Year: 2018-2019

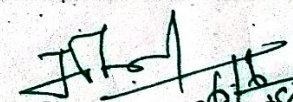
Sub: Physics Paper: I Title: Mechanics and Properties of matter

Name of the Lecturer: J. muralidhar Year: I Class: Bsc. pps Medium: english

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						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	oct	4	04	length contraction, Addition of velocities mass-energy relation, four-vector formalism Revision of questions of exam point of view	variation of mass with velocity Pair Annihilation	explanation				seminar				


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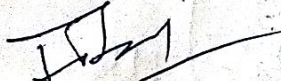
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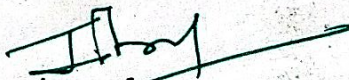
Curricular plan for the Semester: III for the Academic Year: 2018-2019

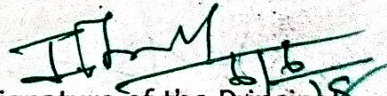
Sub: Physics Paper: III Title: Wave optics

Name of the Lecturer: J. muralidhar Year: II Class: B.Sc. P.C. Medium: English

S.No	Month	Week	Hours Available	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co- Curricular Activity				Remarks
						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	June	4	04	Achromatism for two lenses in contact and separated by a distance <u>Unit-II</u> Principle of superposition, coherence type, Fresnel's biprism - determination of λ of light	conditions of interference	explanation								
	July	01	04	Phase changing on reflection cosine law, cosine of thin films, wedge shaped film	using bin they find cosine on bin water	seminar								


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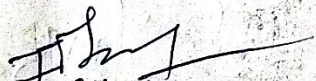
CURRICULAR PLAN - GOVT DEGREE COLLEGE, NANDIKOTKUR

Curricular plan for the Semester: III for the Academic Year: 2018-2019

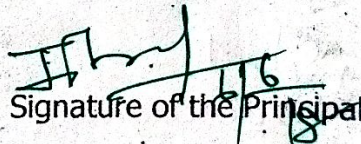
Sub: Physics Paper: III Title: wave optics

Name of the Lecturer: J. muthalibhar Year: II Class: Bsc mps Medium: english

S.No	Month	Week	Hours Available	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co- Curricular Activity				Remarks
						Activity (Other than Teaching & Practicals)	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	Activity	Hrs. Allotted	Conducted (Y/N)	If not Alternate Date	
	July	2	04	wedge film determination of diameter of wire, newton's rings in reflected light, michelson interferometer	Interference in soap bubble	colours of rain drops during raining				seminar				
		3	04	<u>unit-III</u> Introduction to diffraction types of diffraction, Fraunhofer diffraction due to single slit and double slit	one hand voice teaching is heard by the lecture in next class room	expansion				chart preparation				


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