

RGPV (DIPLOMA WING) BHOPAL		OBE CURRICULUM FOR THE COURSE		FORMAT-3	Sheet No. 1/3
Branch	AUTOMOBILE, MECH, RAC, CHEMICAL, CEMENT, PRODUCTION, CIVIL,CTM,PRINTING and TEXTILE TECH			Semester	I
Course Code		Course Name	APPLIED MECHANICS		
Course Outcome 1	Describe forces, couples, moments.			Teach Hrs	Marks
Learning Outcome 1	Classify scalar and vector quantity.			02	05
Contents	Fundamentals: - Definitions of mechanics, statics, dynamics. Engineering mechanics, body, rigid body, mass, weight, length, time, scalar and vector, fundamental units, derived units, S.I. units.				
Method of Assessment	External :Theory exam				
Learning Outcome 2	Apply the resolution of forces.			10	10
Contents	Force: - Definition of a force, unit force, Newton, S.I. unit of a force, representation of a force by vector and by Bow's notation method. Characteristics of a force, effects of a force, principle of transmissibility. Resolution of a force: Definition, Method of resolution, Types of component forces, Perpendicular components and Non-perpendicular components.				
Method of Assessment	Internal:Laboratory test/Performance of a task –Assessment by observation				
Learning Outcome 3	Determine the moment of a force.			06	10
Contents	Moment of a force: - Definition, measurement of moment of a force, S. I. unit, geometrical meaning of moment of a force, classification of moments according to direction of rotation, sign convention, law of moments Varignon's theorem of moment and its use, couple definition, S.I. unit, measurement of a couple, properties of couple.				
Method of Assessment	Internal:Quiz				
Learning Outcome 4	Explain force system.			06	10
Contents	Force system: - Definition, classification of force system according to plane and line of action Composition of Forces: - Definition, Resultant force, methods of composition of forces I – Analytical method – (i) Trigonometric method (law of parallelogram of forces) (ii) Algebraic method (method of resolution), II – Graphical method: - Introduction, space diagram, vector diagram, polar diagram, and funicular polygon. Resultant of concurrent, non-concurrent and parallel force system by analytical and graphical method.				
Method of Assessment	External:Theory exam				
Course Outcome 2	Solve the simple equilibrium problems.			Teach Hrs	Marks
Learning Outcome 1	Calculate the resultant and equilibrium force.			06	10
Contents	Definition, conditions of equilibrium, analytical and graphical conditions of equilibrium for concurrent, non concurrent and parallel force system. Lami's Theorem – statement and explanation, Application of Lami's theorem for solving various engineering problems. Equilibrant – Definition, relation between resultant and equilibrant, equilibrant of concurrent and non-concurrent force system.				
Method of Assessment	Internal :Paper pen test				

Learning Outcome 2	Calculate the reaction for simply supported beam.	06	10
Contents	Beams – Definition, Types of beams (cantilever, simply supported, overhanging, fixed, continuous), Types of end supports (simple support, fixed, hinged, roller), classification of loads, point load, uniformly distributed load. Reaction's for a simply supported beam only.		
Method of Assessment	External:Theory exam		
Course Outcome 3	Determine centre of gravity, equilibrium of bodies on a plane.	Teach Hrs	Marks
Learning Outcome 1	Determine the centroid and centre of gravity in different shapes and lamina.	08	10
Contents	Centroid: Definition of centroid. Moment of an area about an axis. Centroid of basic geometrical figures such as square, rectangle, triangle, circle, semicircle and quarter circle. Centroid of composite figure. Center of gravity: Definition, centre of gravity of simple solids such as cylinder, sphere, hemisphere, cone, cube, and rectangular block. Centre of gravity of composite solids		
Method of Assessment	Internal:Laboratory test/Performance of a task –Assessment by observation		
Learning Outcome 2	Determine coefficient of friction for different surface.	10	15
Contents	Definition of friction, force of friction, limiting frictional force, coefficient of friction, angle of friction, angle of repose, relation between angle of friction, angle of repose and coefficient of friction. cone of friction, types of friction, laws of friction, advantages and disadvantages of friction.		
Method of Assessment	External:Laboratory test/Performance of a task –Assessment by observation		
Learning Outcome 3	Calculate the equilibrium forces.	06	15
Contents	Equilibrium of bodies on level plane-external force applied horizontal and inclined up and down. Equilibrium of bodies on inclined plane-external forces is applied parallel to the plane, horizontal and incline to inclined plane.		
Method of Assessment	External:Theory exam		
Course Outcome 4	Explain simple machine.	Teach Hrs	Marks
Learning Outcome 1	Apply the principle of simple machine.	04	05
Contents	Definitions of simple machine, compound machine , load ,effort , mechanical advantage , velocity ratio , input on a machine ,output of a machine ,efficiency of a machine, expression for mechanical advantage , velocity ratio and efficiency of a machine. Ideal machine, ideal effort and ideal load, friction in machines, effort lost in friction and frictional load.		
Method of Assessment	Internal :Paper pen test		
Learning Outcome 2	Determine the efficiency of simple machine.	08	15
Contents	Law of machine, maximum mechanical advantage and maximum efficiency of a machine, reversibility of a machine, condition for reversibility of a machine, self locking machine. Study of simple machines: Simple axle and wheel, differential axle and wheel, single purchase crab, double purchase crab, simple screw jack pulleys: First , second and third system of pulleys.		
Method of Assessment	External:Laboratory test/Performance of a task –Assessment by observation		
Course Outcome 5	Explain motion of particle and work, power, energy.	Teach Hrs	Marks
Learning Outcome 1	Determine the horizontal range of projectile.	05	10

Contents	Motion of particle - Definition of speed, velocity, acceleration, uniform velocity, uniform acceleration and variable acceleration. Motion under constant acceleration/ retardation (equations of motion), Motion under force of gravity, Concept of relative velocity.		
Method of Assessment	External :Theory exam		
Learning Outcome 2	Determine the angular acceleration of a particle.	05	10
Contents	Definition of projectile, velocity of projection, angle of projection, time of flight, maximum height, horizontal range and their determination. Definition of angular velocity, angular acceleration and angular displacement .Linear angular motion analogy. Relation between linear and angular velocity of a particle moving in a circular path. Motion of rotation under constant angular acceleration		
Method of Assessment	External :Theory exam		
Learning Outcome 3	Determine the moment of a force.	03	05
Contents	Laws of motion-Newton's laws of motion and their application.		
Method of Assessment	Internal :Paper pen test		
Learning Outcome 4	Establish relation between work, power and energy.	05	10
Contents	Work, Power and Energy- Definition unit and graphical representation of work. Definition and unit of power and types of engine power and efficiency of an engine. Definition and concept of Impulse. Definition, unit and types of energies. Total energy of a body falling under gravity.		
Method of Assessment	External :Theory exam		

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-						<i>1</i>		<i>1</i>		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Describe forces, couples, moments.													
LO Description		Classify scalar and vector quantity.													
SCHEME OF STUDY															
S. No.	Learning Content				Teaching –Learning Method			Description of T-L Process			Teach Hrs.	Pract. /Tut Hrs.		LRs Required	Remarks
1.	Fundamentals: - Definitions of mechanics, statics, dynamics. Engineering mechanics, body, rigid body, mass, weight, length, time, scalar and vector, fundamental units, derived units, S.I. units.				Interactive classroom teaching, demonstration, quiz, assignments.			Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz to make students practice their knowledge.			02	NIL		Handouts, chalk board, PPT, text book, charts video film.	NIL
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment			Description of Assessment					Maximum Marks		Resources Required			External / Internal	
1.	Theory exam			Student will be asked to identify scalar and vector quantity.					05		Question paper + rating scale			External	
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
NIL															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME				Branch Code			Course Code			CO Code		LO Code		Format No.	
						-	-	-	6	8	0	5	1		2		4
COURSE NAME		APPLIED MECHANICS															
CO Description		Describe forces, couples, moments.															
LO Description		Apply the resolution of forces.															
SCHEME OF STUDY																	
S. No.	Learning Content	Teaching –Learning Method				Description of T-L Process				Teach Hrs.	Pract. /Tut Hrs.	LRs Required		Remarks			
1.	Force: - Definition of a force, unit force, Newton, S.I. unit of a force, representation of a force by vector and by Bow’s notation method. Characteristics of a force, effects of a force, principle of transmissibility. Resolution of a force: Definition, Method of resolution, Types of component forces, Perpendicular components and Non-perpendicular components.	Lab demonstration, hands on practice, lab assignments, quiz, assignments,				Teacher will explain representation of a force, Bow’s notation method and resolution of a force. The students will learn through practice.				04	06	Handouts, chalk board, PPT, text book, charts, video film.		NIL			
SCHEME OF ASSESSMENT																	
S. No.	Method of Assessment	Description of Assessment						Maximum Marks		Resources Required				External / Internal			
1.	Laboratory test by observation	Students will be asked to apply the resolution of forces.						10		Observation schedule/check-list /rating scales /rubrics				Internal			
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)																	
Part of Lab Work																	

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-	-	-	-	-	-	<i>1</i>		<i>3</i>		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Describe forces, couples, moments.													
LO Description		Determine the moment of a force.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process				Teach Hrs.	Pract. /Tut Hrs.	LRs Required			Remarks			
1.	Moment of a force: - Definition, measurement of moment of a force, S. I. unit, geometrical meaning of moment of a force, classification of moments according to direction of rotation, sign convention, law of moments Varignon’s theorem of moment and it’s use, couple definition, S.I. unit, measurement of a couple, properties of couple.	Interactive classroom teaching, tutorial, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/tutorial/assignments to make students practice their knowledge.				04	02	Handout/ lab manual, text book, charts, video film.			NIL			
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment				Maximum Marks	Resources Required			External / Internal					
1.	Quiz	Students will be asked to give a quiz on learning contents				10	Rubrics/rating scales			Internal					
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
Term work															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No.
					<i>E</i>	<i>0</i>	<i>1</i>	-	-	-	<i>1</i>	<i>4</i>	4
COURSE NAME		APPLIED MECHANICS											
CO Description		Describe forces, couples, moments.											
LO Description		Explain force system.											
SCHEME OF STUDY													
S. No.	Learning Content	Teaching –Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks						
1.	Force system: - Definition, classification of force system according to plane and line of action Composition of Forces: - Definition, Resultant force, methods of composition of forces I – Analytical method – (i) Trigonometric method (law of parallelogram of forces) (ii) Algebraic method (method of resolution), II – Graphical method: - Introduction, space diagram, vector diagram, polar diagram, and funicular polygon. Resultant of concurrent, non-concurrent and parallel force system by analytical and graphical method.	Interactive classroom teaching, tutorial, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/tutorial/assignments to make students practice their knowledge.	06	NIL	Handouts, chalk board, PPT, text book, charts, video film.	NIL						
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment			Maximum Marks	Resources Required		External / Internal					
1.	Theory exam	Students will be asked to solve numerical problems based on content.			10	Question paper + rating scale		External					
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													
NIL													

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-	-	-	-	-	-	2		1		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Solve the simple equilibrium problems.													
LO Description		Calculate the resultant and equilibrium force.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks								
1.	Definition, conditions of equilibrium, analytical and graphical conditions of equilibrium for concurrent, non concurrent and parallel force system. Lami’s Theorem – statement and explanation, Application of Lami’s theorem for solving various engineering problems. Equilibrant – Definition, relation between resultant and equilibrant, equilibrant of concurrent and non-concurrent force system.	Interactive classroom teaching, lab demonstration, tutorial, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/tutorial/assignments to make students practice their knowledge.	04	02	Handouts, chalk board, PPT, text book, charts, video film.	NIL								
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment			Maximum Marks	Resources Required		External / Internal							
1.	Paper pen test	Student will be asked to calculate the resultant and equilibrium force for different force system.			10	Test paper + rating scale		Internal							
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
Part of Progressive – 1															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-	-	-	-	-	-	2		2		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Solve the simple equilibrium problems.													
LO Description		Calculate the reaction for simply supported beam.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method			Description of T-L Process			Teach Hrs.	Pract. /Tut Hrs.	LRs Required			Remarks		
1.	Beams – Definition, Types of beams (cantilever, simply supported, overhanging, fixed, continuous), Types of end supports (simple support, fixed, hinged, roller), classification of loads, point load, uniformly distributed load. Reaction's for a simply supported beam only.	Interactive classroom teaching, quiz, assignments.			Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments to make students practice their knowledge.			06	NIL	Handouts, chalk board, PPT, text book, charts, video film.			NIL		
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment					Maximum Marks	Resources Required			External / Internal				
1.	Theory exam	Students will be asked to solve numerical problems based on content.					10	Question paper + rating scale			External				
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
NIL															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-	-	-	-	-	-	3		1		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Determine centre of gravity, equilibrium of bodies on a plane.													
LO Description		Determine the centroid and centre of gravity in different shapes and lamina.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks								
1.	Centroid: Definition of centroid. Moment of an area about an axis. Centroid of basic geometrical figures such as square, rectangle, triangle, circle, semicircle and quarter circle. Centroid of composite figure. Center of gravity: Definition, centre of gravity of simple solids such as cylinder, sphere, hemisphere, cone, cube, and rectangular block. Centre of gravity of composite solids.	Lab demonstration, hands on practice, lab assignments, quiz, assignments,	Teacher will explain the Centroid, Center of gravity and provide handouts to students. Teacher will conduct quiz/assignments to make students practice their knowledge.	02	06	Handouts, chalk board, PPT, text book, charts, video film.	NIL								
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment			Maximum Marks	Resources Required		External / Internal							
1.	Laboratory test by observation	Student will be asked to determine the centroid and centre of gravity in different shapes and lamina.			10	Observation schedule/check-list /rating scales /rubrics		Internal							
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
Part of Lab Work															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-	-	-	-	-	-	3		2		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Determine centre of gravity, equilibrium of bodies on a plane.													
LO Description		Determine coefficient of friction for different surface.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks								
1.	Definition of friction, force of friction, limiting frictional force, coefficient of friction, angle of friction, angle of repose, relation between angle of friction, angle of repose and coefficient of friction. cone of friction, types of friction, laws of friction, advantages and disadvantages of friction.	Interactive classroom teaching, lab demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments to make students practice their knowledge.	04	06	Handouts, chalk board, PPT, text book, charts, video film.	NIL								
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment			Maximum Marks	Resources Required		External / Internal							
1.	Laboratory test by observation	Student will be asked to determine coefficient of friction for different surface			15	Observation schedule/check-list /rating scales /rubrics		External							
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
Part of end practical exam															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-	-	-	-	-	-	3		3		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Determine centre of gravity, equilibrium of bodies on a plane.													
LO Description		Calculate the equilibrium forces.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method			Description of T-L Process			Teach Hrs.	Pract. /Tut Hrs.	LRs Required			Remarks		
1.	Equilibrium of bodies on level plane-external force applied horizontal and inclined up and down. Equilibrium of bodies on inclined plane-external forces is applied parallel to the plane, horizontal and incline to inclined plane.	Interactive classroom teaching, lab demonstration, quiz, assignments.			Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments to make students practice their knowledge.			04	02	Handouts, chalk board, PPT, text book, charts, video film.			NIL		
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment					Maximum Marks	Resources Required			External / Internal				
1.	Theory exam	Students will be asked to solve numerical problems based on content.					15	Question paper + rating scale			External				
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
NIL															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-	-	-	-	-	-	4		1		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Explain simple machine.													
LO Description		Apply the principle of simple machine.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method			Description of T-L Process			Teach Hrs.	Pract. /Tut Hrs.	LRs Required		Remarks			
1.	Definitions of simple machine, compound machine , load ,effort , mechanical advantage , velocity ratio , input on a machine ,output of a machine ,efficiency of a machine , expression for mechanical advantage , velocity ratio and efficiency of a machine. Ideal machine, ideal effort and ideal load, friction in machines, effort lost in friction and frictional load.	Interactive classroom teaching, tutorial, quiz, assignments.			Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/tutorial/assignments to make students practice their knowledge.			04	NIL	Handouts, chalk board, PPT, text book, charts, video film.		NIL			
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment					Maximum Marks	Resources Required			External / Internal				
1.	Paper pen test	Student will be asked to define terminology of learning contents					05	Test paper + rating scale			Internal				
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
Part of Progressive – II															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-			-			4		2		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Explain simple machine.													
LO Description		Determine the efficiency of simple machine.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method	Description of T-L Process			Teach Hrs.	Pract. /Tut Hrs.	LRs Required			Remarks				
1.	Law of machine, maximum mechanical advantage and maximum efficiency of a machine, reversibility of a machine, condition for reversibility of a machine, self locking machine. Study of simple machines : Simple axle and wheel, differential axle and wheel, single purchase crab, double purchase crab, simple screw jack, pulleys : First, second and third system of pulleys.	Interactive classroom teaching, lab demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments to make students practice their knowledge.			02	06	Handouts, chalk board, PPT, text book, charts, video film.			NIL				
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment				Maximum Marks	Resources Required			External / Internal					
1.	Laboratory test by observation	Student will be asked to determine the efficiency of simple machine				15	Observation schedule/check-list /rating scales /rubrics			External					
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
Part of end practical exam															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-			-			5		1		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Explain motion of particle and work, power, energy.													
LO Description		Determine the horizontal range of projectile.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method	Description of T-L Process			Teach Hrs.	Pract. /Tut Hrs.	LRs Required			Remarks				
1.	Motion of particle - Definition of speed, velocity, acceleration, uniform velocity, uniform acceleration and variable acceleration. Motion under constant acceleration/ retardation (equations of motion), Motion under force of gravity, Concept of relative velocity.	Interactive classroom teaching, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments to make students practice their knowledge.			05	NIL	Handouts, chalk board, PPT, text book, charts, video film.			NIL				
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment				Maximum Marks	Resources Required			External / Internal					
1.	Theory exam	Students will be asked to solve numerical problems based on content.				10	Question paper + rating scale			External					
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
NIL															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-			-			5		2		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Explain motion of particle and work, power, energy.													
LO Description		Determine the angular acceleration of a particle.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks								
1.	Definition of projectile, velocity of projection, angle of projection, time of light, maximum height, horizontal range and their determination. Definition of angular velocity, angular acceleration and angular displacement .Linear angular motion analogy. Relation between linear and angular velocity of a particle moving in a circular path. Motion of rotation under constant angular acceleration	Interactive classroom teaching, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments to make students practice their knowledge.	05	NIL	Handouts, chalk board, PPT, text book, charts, video film.	NIL								
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment			Maximum Marks	Resources Required		External / Internal							
1.	Theory exam	Students will be asked to solve numerical problems based on content.			10	Question paper + rating scale		External							
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
NIL															

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
					-	-	-	-	-	-	5	3	
COURSE NAME		APPLIED MECHANICS											
CO Description		Explain motion of particle and work, power, energy											
LO Description		Describe Newton's law of motion											
SCHEME OF STUDY													
S. No.	Learning Content	Teaching –Learning Method	Description of T-L Process					Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks		
1.	Laws of motion-Newton's laws of motion and their application.	Interactive classroom teaching, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments to make students practice their knowledge.					03	NIL	Handouts, chalk board, PPT, text book, charts, video film.	NIL		
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment					Maximum Marks	Resources Required			External / Internal		
1.	Paper pen test	Student will be asked to Newton's laws of motion and their application					05	Test paper + rating scale			Internal		
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													
Part of Progressive – II													

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code		LO Code		Format No.
					-	-	-	-	-	-	5		4		4
COURSE NAME		APPLIED MECHANICS													
CO Description		Explain motion of particle and work, power, energy.													
LO Description		Establish relation between work, power and energy.													
SCHEME OF STUDY															
S. No.	Learning Content	Teaching –Learning Method			Description of T-L Process			Teach Hrs.	Pract. /Tut Hrs.	LRs Required			Remarks		
1.	Work, Power and Energy- Definition unit and graphical representation of work. Definition and unit of power and types of engine power and efficiency of an engine. Definition and concept of Impulse. Definition, unit and types of energies. Total energy of a body falling under gravity.	Interactive classroom teaching, quiz, assignments.			Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments to make students practice their knowledge.			05	NIL	Handouts, chalk board, PPT, text book, charts, video film.			NIL		
SCHEME OF ASSESSMENT															
S. No.	Method of Assessment	Description of Assessment					Maximum Marks	Resources Required			External / Internal				
1.	Theory exam	Students will be asked to solve numerical problems based on content.					10	Question paper + rating scale			External				
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)															
NIL															