

SCHEME OF EXAMINATION

Subject Code	Subject	Hrs of Instruction	Exam Duration (Hrs)	Max Marks			Credit Points
				CA	CE	Total	
First Semester							
Part I							
18UTALA101/ 18UHILA101/ 18UFRLA101	Tamil I / Hindi I / French I	5	3	25	75	100	3
Part II							
18UENLA101	Foundation English I	5	3	25	75	100	3
Part III							
18UPHM101	Core I: Properties of Matter and Sound	5	3	25	75	100	5
18UPHM102	Core II: Thermal Physics	5	3	25	75	100	4
18UMAPHA101	Allied I: Algebra and Differential Calculus	5	3	25	75	100	4
18UPHMP101	Core Practical I: Practical Physics I	3	3	40	60	100	2
Part IV							
18UVE101	Value Education I: Yoga	2	3	25	75	100	2
Total		30		700			23
Second Semester							
Part I							
18UTALA201/ 18UHILA201/ 18UFRLA201	Tamil II/ Hindi II/ French II	5	3	25	75	100	3
Part II							
18UENLA201	Foundation English II	5	3	25	75	100	3
Part III							
18UPHM201	Core III: Mechanics	5	3	25	75	100	5
18UPHM202	Core IV: Optics	5	3	25	75	100	4
18UMAPHA201	Allied II: Integral Calculus and Vector Calculus	5	3	25	75	100	4
18UPHMP201	Core Practical II: Practical Physics II	3	3	40	60	100	2
Part IV							
18UVE201	Value Education II: Environmental Studies	2	3	25	75	100	2
Total		30		700			23

Subject Code	Subject	Hrs of Instruct ion	Exam Duration (Hrs)	Max Marks			Credit Points
				CA	CE	Total	
Third Semester							
Part I							
18UTALA301/ 18UHILA301/ 18UFRLA301	Tamil III / Hindi III / French III	5	3	25	75	100	3
Part II							
18UENLA301	Foundation English III	5	3	25	75	100	3
Part III							
18UPHM301	Core V: Atomic Physics	5	3	25	75	100	5
18UCSPHA301	Allied III: Programming in C	3	3	25	75	100	2
18UPHMP301	Core Practical III: Practical Physics III	3	3	40	60	100	2
18UCSPHAP301	Allied Practical I: Programming in C	2	3	40	60	100	2
Part IV							
18UPHSB301	SBC I: Instrumentation	2	3	25	75	100	2
	NMEC I	2	3	25	75	100	2
Non Credit							
18ULS301	Career Competency Skills I	1	-	-	-	-	-
	Add-on Course	2	-	-	-	-	-
	Total	30				800	21
Fourth Semester							
Part I							
18UTALA401/ 18UHILA401/ 18UFRLA401	Tamil IV/ Hindi IV/ French IV	5	3	25	75	100	3
Part II							
18UENLA401	Foundation English IV	5	3	25	75	100	3
Part III							
18UPHM401	Core VI: Basic Electronics	5	3	25	75	100	5
18UCHPHA401	Allied IV: Chemistry	3	3	25	75	100	2
18UPHMP401	Core Practical IV: Practical Physics IV	3	3	40	60	100	2
18UCHPHAP401	Allied Practical II: Chemistry	2	3	40	60	100	2
Part IV							
18UPHSB401	SBC II: Laser Physics	2	3	25	75	100	2
	NMEC II	2	3	25	75	100	2
Non Credit							
18ULS401	Career Competency Skills II	1	-	-	-	-	-
	Add-on Course	2	-	-	-	-	-
	Total	30				800	21

Subject Code	Subject	Hrs of Instruction	Exam Duration (Hrs)	Max Marks			Credit Points
				CA	CE	Total	
Fifth Semester							
Part III							
18UPHM501	Core VII: Electricity and Electromagnetism	6	3	25	75	100	5
18UPHM502	Core VIII: Solid State Physics	5	3	25	75	100	5
18UPHM503	Core IX: Mathematical Physics (Fifth Unit Self-Study)	5	3	25	75	100	4
18UPHM504	Core X: Electronics and Communication	4	3	25	75	100	4
18UPHEL501	Elective I: Energy Physics	4	3	25	75	100	4
18UPHEL502	Elective I: Geophysics						
18UPHMP501	Core Practical V: Practical Physics - V	3	3	40	60	100	2
Part IV							
18UPHSB401	SBC III: Spectrophysics	2	3	25	75	100	2
Part V							
18UPHE501	Extension Activity	-	-	-	-	-	2
Non Credit							
18ULS501	Career Competency Skills III	1	-	-	-	-	-
Total		30				700	28
Sixth Semester							
Part III							
18UPHM601	Core XI: Quantum Mechanics and Relativity	6	3	25	75	100	5
18UPHM602	Core XII: Nuclear Physics	6	3	25	75	100	5
18UPHM603	Core XIII: Digital Electronics and Microprocessor	5	3	25	75	100	4
18UPHEL601	Elective II: Nanoscience	4	3	25	75	100	4
18UPHEL602	Elective II: Biomedical Instrumentation						
18UPHMP601	Core Practical VI: Practical Physics -VI	3	3	40	60	100	2
18UPHPR601	Project & Viva - Voce	3	3	40	60	100	2
Part IV							
18UPHSB601	SBC IV: Materials and Processing	2	3	25	75	100	2
Non Credit							
18ULS601	Career Competency Skills IV	1	-	-	-	-	-
Total		30				700	24
Grand Total						4400	140

NON MAJOR ELECTIVE COURSE

The department offers the following two subjects as Non-Major Elective Course for other than Physics students for third and fourth semester.

S.No	Subject code	Semester	Subject
1	18UPHNM301	III	Laser and its Applications
2	18UPHNM401	IV	Applied Physics

ADD-ON COURSE

The department offers the following two subjects as Add-on Course for third and fourth semester.

S.No	Subject code	Semester	Subject
1	18UPHAC301	III	Fundamentals of Astrophysics
2	18UPHAC401	IV	Astronomical Techniques

Advanced Learners Course

The department offers the following subject as Advanced Learner's Course for fourth and fifth semester.

S.No	Subject code	Semester	Subject
1	18UPHAL401	IV	Plasma Physics
2	18UPHAL501	V	Spintronics

ELECTIVE I

Students shall choose any one subject as an elective from the following subjects in the fifth semester.

S.No	Subject code	Subject
1	18UPHEL501	Elective I: Energy Physics
2	18UPHEL502	Elective I: Geophysics

ELECTIVE II

Students shall choose any one subject as an elective from the following subjects in the sixth semester.

S.No	Subject code	Subject
1	18UPHEL601	Elective II: Nanoscience
2	18UPHEL602	Elective II: Biomedical Instrumentation

FOR COURSE COMPLETION

Students should complete

- Language subjects (Tamil/Hindi/French, English) in I, II, III and IV semesters.
- Value Education Yoga and Environmental Studies in I and II semesters respectively.
- Allied subjects in I, II, III and IV semesters.
- Need based Elective Courses in III and IV semesters.
- Skill based Courses in III, IV, V and VI semesters.
- Extension activity in V semester.
- Project & Viva - Voce in VI semester.

TOTAL CREDIT DISTRIBUTION

S.NO.	COMPONENTS	MARKS	CREDITS	CUMULATIVE CREDITS
1.	PART I :			12
	Tamil/ Hindi/ French	4×100=400	4×3=12	
2.	PART II :			12
	Foundation English	4×100=400	4×3=12	
3.	PART III :			98
	Core Theory	13×100=1300	5×4=20 8×5=40	
	Elective	2×100=200	2×4=08	
	Core Practical	6×100=600	6×2=12	
	Allied Theory	4×100=400	2×4=08 2×2=04	
	Allied Practical	2×100=200	2×2=04	
	Project & Viva - Voce	1×100=100	1×2=02	
4.	PART IV :			16
	Skill Based Courses	4×100=400	4×2=08	
	Value Education	2×100=200	2×2=04	
	NMEC	2×100=200	2×2=04	
5.	PART V:			02
	Extension Activity	-	1×2=02	
Total (44 Papers)		4400	-	140