



**Integral University, Lucknow**  
**Faculty of Science**  
**Department of Chemistry**  
**Study and Evaluation Scheme**  
**B.Sc. (Physics, Chemistry, Mathematics)**  
**w.e.f. July, 2018**

**SEMESTER I**

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	LN104	Essential Professional Communication	Foundation	3	1	0	25	15	40	60	100	3:1:0	4
2	PY106	Mechanics and Wave Motion	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	CH117	General Chemistry-I	Core	2	1	0	25	15	40	60	100	2:1:0	3
4	MT121	Algebra and Trigonometry	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT122	Calculus	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY107	Mechanics Lab	Practical	0	0	6	25	15	40	60	100	0:0:3	3
7	CH118	Chemistry Practical-I	Practical	0	0	4	25	15	40	60	100	0:0:2	2
		<b>Total</b>		<b>14</b>	<b>5</b>	<b>10</b>	<b>175</b>	<b>105</b>	<b>280</b>	<b>420</b>	<b>700</b>	<b>24</b>	<b>24</b>

**SEMESTER II**

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	ES115	Fundamentals of Environmental Science	Foundation	3	1	0	25	15	40	60	100	3:1:0	4
2	PY108	Physical Optics and Lasers	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	CH119	General Chemistry-II	Core	3	1	0	25	15	40	60	100	3:1:0	4
4	MT123	Vector Analysis and Geometry	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT124	Differential Equations	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY109	Optics Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
7	CH120	Chemistry Practical-II	Practical	0	0	4	25	15	40	60	100	0:0:2	2
		<b>Total</b>		<b>15</b>	<b>5</b>	<b>8</b>	<b>175</b>	<b>105</b>	<b>280</b>	<b>420</b>	<b>700</b>	<b>24</b>	<b>24</b>



## SEMESTER III

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY201	Circuit Fundamentals & Basic Electronics	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	PY202	Kinetic Theory & Thermodynamics	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	CH216	Inorganic and Physical Chemistry-I	Core	2	1	0	25	15	40	60	100	2:1:0	3
4	CH217	Organic and Physical Chemistry-I	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT211	Numerical Computing	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY203	Electronics and Thermal Physics Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
7	CH218	Chemistry Practical-III	Practical	0	0	4	25	15	40	60	100	0:0:2	2
8	MT212	Numerical Computing Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
<b>Total</b>				<b>14</b>	<b>5</b>	<b>12</b>	<b>200</b>	<b>120</b>	<b>320</b>	<b>480</b>	<b>800</b>	<b>25</b>	<b>25</b>

## SEMESTER IV

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY204	Electricity & Magnetism	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	CH219	Inorganic and Physical Chemistry-II	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	CH220	Organic and Physical Chemistry-II	Core	3	1	0	25	15	40	60	100	3:1:0	4
4	MT213	Tensor Analysis	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT214	Abstract Algebra	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY205	Electricity & Magnetism Lab	Practical	0	0	6	25	15	40	60	100	0:0:3	3
7	CH221	Chemistry Practical-IV	Practical	0	0	4	25	15	40	60	100	0:0:2	2
<b>Total</b>				<b>15</b>	<b>5</b>	<b>10</b>	<b>175</b>	<b>105</b>	<b>280</b>	<b>420</b>	<b>700</b>	<b>25</b>	<b>25</b>



## SEMESTER V (Physics, Mathematics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY301	Elements of Quantum Mechanics, Atomic & Molecular Spectra	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	PY302	Classical Mechanics, Relativity & Statistical Physics	Core	2	1	0	25	15	40	60	100	2:1:0	3
3	PY303	Solid State, Nuclear & Particle Physics	Core	2	1	0	25	15	40	60	100	2:1:0	3
4	MT301	Advanced Calculus	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT302	Mathematical Statistics	Core	2	1	0	25	15	40	60	100	2:1:0	3
6	MT303	Number Theory	Core	2	1	0	25	15	40	60	100	2:1:0	3
7	PY304	Advance Electricity & Magnetism Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
8	MT304	Statistical Techniques Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
<b>Total</b>				<b>16</b>	<b>6</b>	<b>8</b>	<b>200</b>	<b>120</b>	<b>320</b>	<b>480</b>	<b>800</b>	<b>24</b>	<b>24</b>

## SEMESTER VI (Physics, Mathematics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY305	Applied Electronics	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	PY307	Mathematical Methods in Physics	Elective	3	1	0	25	15	40	60	100	3:1:0	4
3	PY308	Advanced Solid State Physics	Elective										
4	MT307	Basic Mathematical Modeling	Elective										
5	MT308	Linear Programming	Elective	3	1	0	25	15	40	60	100	3:1:0	4
6	MT305	Statics & Dynamics	Core	3	1	0	25	15	40	60	100	3:1:0	4
7	MT306	Analysis	Core	3	1	0	25	15	40	60	100	3:1:0	4
8	PY309	UG Physics Project	Core	0	0	8	0	0	0	200	200	0:0:4	4
<b>Total</b>				<b>15</b>	<b>5</b>	<b>8</b>	<b>125</b>	<b>75</b>	<b>200</b>	<b>500</b>	<b>700</b>	<b>24</b>	<b>24</b>



## SEMESTER V (Chemistry, Mathematics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	CH314	Advance Inorganic Chemistry	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	CH315	Advance Organic Chemistry	Core	2	1	0	25	15	40	60	100	2:1:0	3
3	CH319	Basics of Chromatographic Techniques	Core	2	1	0	25	15	40	60	100	2:1:0	3
4	MT301	Advance Calculus	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	MT302	Mathematical Statistics	Core	2	1	0	25	15	40	60	100	2:1:0	3
6	MT303	Number Theory	Core	2	1	0	25	15	40	60	100	2:1:0	3
7	CH316	Chemistry Practical-V	Practical	0	0	4	25	15	40	60	100	0:0:2	2
8	MT304	Statistical Techniques Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
<b>Total</b>				<b>16</b>	<b>6</b>	<b>8</b>	<b>200</b>	<b>120</b>	<b>320</b>	<b>480</b>	<b>800</b>	<b>24</b>	<b>24</b>

## SEMESTER VI (Chemistry, Mathematics)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	CH308	Spectroscopic Techniques	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	CH309	Chemical Process Industry	Elective	3	1	0	25	15	40	60	100	3:1:0	4
3	CH317	Chemistry of Polymers	Elective										
4	MT307	Basic Mathematical Modeling	Elective										
5	MT308	Linear Programming	Elective	3	1	0	25	15	40	60	100	3:1:0	4
6	MT305	Statics & Dynamics	Core	3	1	0	25	15	40	60	100	3:1:0	4
7	MT306	Analysis	Core	3	1	0	25	15	40	60	100	3:1:0	4
8	CH318	UG Chemistry Project	Core	0	0	8	0	0	0	200	200	0:0:4	4
<b>Total</b>				<b>15</b>	<b>5</b>	<b>8</b>	<b>125</b>	<b>75</b>	<b>200</b>	<b>500</b>	<b>700</b>	<b>24</b>	<b>24</b>

**L: Lecture, T: Tutorial, P: Practical**

**CT: Class Test, TA: Teacher Assessment, ESE: End Semester Examination**



## SEMESTER V (Physics, Chemistry)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY301	Elements of Quantum Mechanics, Atomic & Molecular Spectra	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	PY302	Classical Mechanics, Relativity & Statistical Physics	Core	2	1	0	25	15	40	60	100	2:1:0	3
3	PY303	Solid State, Nuclear & Particle Physics	Core	2	1	0	25	15	40	60	100	2:1:0	3
4	CH314	Advance Inorganic Chemistry	Core	3	1	0	25	15	40	60	100	3:1:0	4
5	CH315	Advance Organic Chemistry	Core	2	1	0	25	15	40	60	100	2:1:0	3
6	CH319	Basics of Chromatographic Techniques	Core	2	1	0	25	15	40	60	100	2:1:0	3
7	PY304	Advance Electricity & Magnetism Lab	Practical	0	0	4	25	15	40	60	100	0:0:2	2
8	CH316	Chemistry Practical-V	Practical	0	0	4	25	15	40	60	100	0:0:2	2
<b>Total</b>				<b>14</b>	<b>6</b>	<b>8</b>	<b>200</b>	<b>120</b>	<b>320</b>	<b>480</b>	<b>800</b>	<b>24</b>	<b>24</b>

## SEMESTER VI (Physics, Chemistry)

SL. No	COURSE CODE	COURSE TITLE	Type of Paper	L	T	P	Evaluation Scheme				Subject Total	Credit	Total Credit
							CT	TA	Total	ESE			
1	PY305	Applied Electronics	Core	3	1	0	25	15	40	60	100	3:1:0	4
2	CH308	Spectroscopic Techniques	Core	3	1	0	25	15	40	60	100	3:1:0	4
3	PY307	Mathematical Methods in Physics	Elective	3	1	0	25	15	40	60	100	3:1:0	4
	PY308	Advanced Solid State Physics	Elective										
4	CH309	Chemical Process Industry	Elective	3	1	0	25	15	40	60	100	3:1:0	4
	CH317	Chemistry of Polymers	Elective										
5	CH310/PY306	Fundamentals of Food Chemistry /Physics of Materials	Core	3	1	0	25	15	40	60	100	3:1:0	4
6	PY 309/CH318	UG Physics Project/UG Chemistry Project	Core	0	0	8	0	0	0	200	200	0:0:4	4
<b>Total</b>				<b>15</b>	<b>5</b>	<b>8</b>	<b>125</b>	<b>75</b>	<b>200</b>	<b>500</b>	<b>700</b>	<b>24</b>	<b>24</b>

**L: Lecture, T: Tutorial, P: Practical**

**CT: Class Test, TA: Teacher Assessment, ESE: End Semester Examination**