

**I.B. (PG) COLLEGE, PANIPAT**  
**LESSON PLAN (SESSION 2019-20)**  
**LESSON PLAN: 19 WEEKS (JULY – NOV)**

WEEK	CLASS: B.Sc. III Course: Animal Biotechnolgy
1	HAWAN & INAUGURATION SESSION 2019-20
	TIME-TABLE DISPLAY & DISCUSSION
	ORIENTATION PROGRAMME & LIBRARY VISIT (SCIENCE)
	ORIENTATION PROGRAMME & LIBRARY VISIT (COMMERCE)
	ORIENTATION PROGRAMME & LIBRARY VISIT (ARTS)
	SUNDAY
2	
	Animal Cell & Tissue Culture Animal Cell & Tissue Culture Animal Cell & Tissue Culture
	SUNDAY
3	
	SHAHEED UDHAM SINGH MARTYRDOM DAY
	Culture Media Culture Media
	HARIYALI TEEJ
	SUNDAY
4	
	Culture Media
4	Primary Cell Culture techniques Primary Cell Culture techniques
	SUNDAY
5	ID-UL-ZUHA (BAKR-ID)
	INDEPENDENCE DAY / RAKSHA BANDHAN Primary Cell Culture techniques Primary Cell Culture techniques
	SUNDAY
6	
	Secondary cell culture Secondary cell culture
	JANAMASHTMI
	SUNDAY

7	
	Secondary cell culture Secondary cell culture Organ Culture: technique
	SUNDAY
8	
	Organ Culture: technique
8	Transfection methods Transfection methods
	SUNDAY
9	
	Selectable markers Selectable markers Cloning and expression :genes
	SUNDAY
10	
	Cloning and expression :genes Production of vaccines in animal cells Hybridoma Technology
	SUNDAY
11	SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY
	Assignment Embryo transfer technology Embryo transfer technology
	SUNDAY (MAHARAJA AGRASEN JAYANTI)
12	
	MAHATMA GANDHI JAYANTI
12	Transgenic Animals Production of transgenic mice
	SUNDAY
	DUSSEHRA

13	Therapeutic products
	Therapeutic products
	Therapeutic products
	SUNDAY (MAHARISHI VALMIKI JAYANTI)
14	KARVA CHAUTH
	Gene Therapy
	Gene Therapy
	SUNDAY
15	VACATION -I (DIWALI)
	VACATION -I (DIWALI)
	VACATION -I (DIWALI)
	SUNDAY (VACATION - I (DIWALI))
	VACATION -I (DIWALI)
16	VACATION -I (DIWALI)
	VACATION -I (DIWALI)
	VACATION -I (DIWALI)
	Gene Therapy
16	HARYANA DAY
	Artificial insemination
	SUNDAY
17	Scope and Applications
	Scope and Applications
	Expressed proteins
	SUNDAY
18	Guru Nanak Birthday
	Expressed proteins
	Test
	Test
19	SUNDAY

## LESSON PLAN (SESSION 2019-20)

## LESSON PLAN: 19 WEEKS (JULY – NOV)

WEEK	DATE	CLASS- B.Sc. III Subject- Zoology
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (SCIENCE)
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (COMMERCE)
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (ARTS)
	21-Jul-19	SUNDAY
2	22-Jul-19	
	23-Jul-19	
	24-Jul-19	
	25-Jul-19	Basic concepts of Ecology
	26-Jul-19	Basic concepts of Ecology
	27-Jul-19	Basic concepts of Ecology
	28-Jul-19	SUNDAY
3	29-Jul-19	
	30-Jul-19	
	31-Jul-19	SHAHEED UDHAM SINGH MARTYRDOM DAY
	1-Aug-19	Environmental Factors
	2-Aug-19	Environmental Factors
	3-Aug-19	HARIYALI TEEJ
	4-Aug-19	SUNDAY
4	5-Aug-19	
	6-Aug-19	
	7-Aug-19	
	8-Aug-19	Environmental Factors
4	9-Aug-19	Environmental Factors
	10-Aug-19	Ecosystem
	11-Aug-19	SUNDAY
5	12-Aug-19	ID-UL-ZUHA (BAKR-ID)
	13-Aug-19	
	14-Aug-19	
	15-Aug-19	INDEPENDENCE DAY / RAKSHA BANDHAN
	16-Aug-19	Ecosystem
	17-Aug-19	Ecosystem
	18-Aug-19	SUNDAY
6	19-Aug-19	
	20-Aug-19	
	21-Aug-19	
	22-Aug-19	Biogeochemical cycles
	23-Aug-19	Biogeochemical cycles
	24-Aug-19	JANAMASHTMI
	25-Aug-19	SUNDAY
7	26-Aug-19	
	27-Aug-19	
	28-Aug-19	
	29-Aug-19	Biogeochemical cycles
	30-Aug-19	Population : Growth & regulation

	31-Aug-19	Population : Growth & regulation
	1-Sep-19	<b>SUNDAY</b>
8	2-Sep-19	
	3-Sep-19	
	4-Sep-19	
	5-Sep-19	Concept of Biodiversity
	6-Sep-19	Concept of Biodiversity
8	7-Sep-19	Concept of Biodiversity
	8-Sep-19	<b>SUNDAY</b>
	9-Sep-19	
9	10-Sep-19	
	11-Sep-19	
	12-Sep-19	
	13-Sep-19	
	14-Sep-19	
	15-Sep-19	<b>SUNDAY</b>
	16-Sep-19	
10	17-Sep-19	
	18-Sep-19	
	19-Sep-19	Concept of Biodiversity
	20-Sep-19	Concept of Biodiversity
	21-Sep-19	Migration of Fishes
	22-Sep-19	<b>SUNDAY</b>
	23-Sep-19	<b>SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY</b>
11	24-Sep-19	
	25-Sep-19	
	26-Sep-19	<b>Class Test</b>
	27-Sep-19	Population interactions
	28-Sep-19	Population interactions
	29-Sep-19	<b>SUNDAY (MAHARAJA AGRASEN JAYANTI)</b>
	30-Sep-19	
12	1-Oct-19	
	2-Oct-19	<b>MAHATMA GANDHI JAYANTI</b>
	3-Oct-19	<b>Class Test</b>
	4-Oct-19	Population interactions
12	5-Oct-19	Population interactions
	6-Oct-19	<b>SUNDAY</b>
	7-Oct-19	
13	8-Oct-19	<b>DUSSEHRA</b>
	9-Oct-19	
	10-Oct-19	Environmental pollution
	11-Oct-19	Environmental pollution
	12-Oct-19	Environmental pollution
	13-Oct-19	<b>SUNDAY (MAHARISHI VALMIKI JAYANTI)</b>
	14-Oct-19	
14	15-Oct-19	
	16-Oct-19	
	17-Oct-19	<b>KARVA CHAUTH</b>
	18-Oct-19	Environmental pollution
	19-Oct-19	Environmental pollution
	20-Oct-19	<b>SUNDAY</b>

15	21-Oct-19	
	22-Oct-19	
	23-Oct-19	
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION - I (DIWALI))</b>
16	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	<b>Class Test</b>
16	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	Revision
	3-Nov-19	<b>SUNDAY</b>
17	4-Nov-19	
	5-Nov-19	
	6-Nov-19	
	7-Nov-19	Revision
	8-Nov-19	Revision
	9-Nov-19	Revision
	10-Nov-19	<b>SUNDAY</b>
18	11-Nov-19	
	12-Nov-19	
	13-Nov-19	
	14-Nov-19	<b>Class Test</b>
	15-Nov-19	Revision
	16-Nov-19	<b>Class Test</b>
	17-Nov-19	<b>SUNDAY</b>
19	18-Nov-19	

**I.B. (PG) COLLEGE, PANIPAT**

**LESSON PLAN (SESSION 2019-20)**

**LESSON PLAN: 19 WEEKS (JULY – NOV)**

WEEK	DATE	CLASS: B.Sc. III Course: Evolution and Dev. Biology
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(SCIENCE)</b>
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(COMMERCE)</b>
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(ARTS)</b>
	21-Jul-19	<b>SUNDAY</b>
2	22-Jul-19	<b>Origin of life I</b>
	23-Jul-19	<b>Origin of life I</b>
	24-Jul-19	<b>Origin of life I</b>
	25-Jul-19	
	26-Jul-19	
	27-Jul-19	
	28-Jul-19	<b>SUNDAY</b>
3	29-Jul-19	<b>Origin of life II</b>
	30-Jul-19	<b>Origin of life II</b>
	31-Jul-19	<b>SHAHEED UDHAM SINGH MARTYRDOM DAY</b>
	1-Aug-19	
	2-Aug-19	
	3-Aug-19	<b>HARIYALI TEEJ</b>
	4-Aug-19	<b>SUNDAY</b>
4	5-Aug-19	<b>Origin of life II</b>
	6-Aug-19	<b>Evolution Of Man</b>
	7-Aug-19	<b>Gametogenesis and Gametes</b>
	8-Aug-19	
4	9-Aug-19	
	10-Aug-19	
	11-Aug-19	<b>SUNDAY</b>
5	12-Aug-19	<b>ID-UL-ZUHA (BAKR-ID)</b>
	13-Aug-19	<b>Gametogenesis and Gametes</b>
	14-Aug-19	<b>Gametogenesis and Gametes</b>
	15-Aug-19	<b>INDEPENDENCE DAY / RAKSHA BANDHAN</b>
	16-Aug-19	
	17-Aug-19	
	18-Aug-19	<b>SUNDAY</b>
6	19-Aug-19	<b>Extra Embryonic Membranes</b>
	20-Aug-19	<b>Extra Embryonic Membranes</b>
	21-Aug-19	<b>Fertilization and parthenogenesis</b>
	22-Aug-19	
	23-Aug-19	
	24-Aug-19	<b>JANAMASHTMI</b>
	25-Aug-19	<b>SUNDAY</b>
7	26-Aug-19	<b>Fertilization and parthenogenesis</b>
	27-Aug-19	<b>Fertilization and parthenogenesis</b>
	28-Aug-19	
	29-Aug-19	
	30-Aug-19	

	31-Aug-19	
	1-Sep-19	<b>SUNDAY</b>
<b>8</b>	2-Sep-19	<b>Concept of Micro- Macro Mega Evolution</b>
	3-Sep-19	<b>Concept of Micro- Macro Mega Evolution</b>
	4-Sep-19	<b>Patterns Of Cleavage</b>
	5-Sep-19	
<b>8</b>	6-Sep-19	
	7-Sep-19	
	8-Sep-19	<b>SUNDAY</b>
<b>9</b>	9-Sep-19	<b>Patterns Of Cleavage</b>
	10-Sep-19	<b>Patterns Of Cleavage</b>
	11-Sep-19	<b>concept of species</b>
	12-Sep-19	
	13-Sep-19	
	14-Sep-19	
	15-Sep-19	<b>SUNDAY</b>
<b>10</b>	16-Sep-19	<b>concept of species</b>
	17-Sep-19	<b>concept of species</b>
	18-Sep-19	<b>Primary Organisers</b>
	19-Sep-19	
	20-Sep-19	
	21-Sep-19	
	22-Sep-19	<b>SUNDAY</b>
<b>11</b>	23-Sep-19	<b>SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY</b>
	24-Sep-19	<b>Primary Organisers</b>
	25-Sep-19	<b>Competence Determination Differentiation</b>
	26-Sep-19	
	27-Sep-19	
	28-Sep-19	
	29-Sep-19	<b>SUNDAY (MAHARAJA AGRASEN JAYANTI)</b>
<b>12</b>	30-Sep-19	<b>Competence Determination Differentiation</b>
	1-Oct-19	<b>Phylogeny of Horse</b>
	2-Oct-19	<b>MAHATMA GANDHI JAYANTI</b>
	3-Oct-19	
<b>12</b>	4-Oct-19	
	5-Oct-19	
	6-Oct-19	<b>SUNDAY</b>
<b>13</b>	7-Oct-19	<b>Phylogeny of Horse</b>
	8-Oct-19	<b>DUSSEHRA</b>
	9-Oct-19	<b>Development of Frog</b>
	10-Oct-19	
	11-Oct-19	
	12-Oct-19	
	13-Oct-19	<b>SUNDAY (MAHARISHI VALMIKI JAYANTI)</b>
<b>14</b>	14-Oct-19	<b>Development of Frog</b>
	15-Oct-19	<b>Development of Frog</b>
	16-Oct-19	<b>Regeneration</b>
	17-Oct-19	<b>KARVA CHAETH</b>
	18-Oct-19	
	19-Oct-19	



	20-Oct-19	<b>SUNDAY</b>
<b>15</b>	21-Oct-19	<b>Regeneration</b>
	22-Oct-19	<b>Regeneration</b>
	23-Oct-19	<b>Evidences of evolution</b>
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION - I (DIWALI))</b>
<b>16</b>	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	
<b>16</b>	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	
	3-Nov-19	<b>SUNDAY</b>
<b>17</b>	4-Nov-19	<b>Evidences of evolution</b>
	5-Nov-19	<b>Evidences of evolution</b>
	6-Nov-19	<b>Evidences of evolution</b>
	7-Nov-19	
	8-Nov-19	
	9-Nov-19	
	10-Nov-19	<b>SUNDAY</b>
<b>18</b>	11-Nov-19	<b>Guru Nanak Birthday</b>
	12-Nov-19	<b>Theories of Evolution</b>
	13-Nov-19	<b>Theories of Evolution</b>
	14-Nov-19	
	15-Nov-19	
	16-Nov-19	
	17-Nov-19	<b>SUNDAY</b>
<b>19</b>	18-Nov-19	<b>Revision test</b>

**I.B. (PG) COLLEGE, PANIPAT**

**LESSON PLAN (SESSION 2019-20)**

**LESSON PLAN: 19 WEEK (JULY – NOV)**

WEEK	DATE	CLASS:- B.A. III      Subject:-Groups And Rings
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT ( <b>SCIENCE</b> )
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT ( <b>COMMERCE</b> )
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT ( <b>ARTS</b> )
	21-Jul-19	<b>SUNDAY</b>
2	22-Jul-19	Group : Definition
	23-Jul-19	Examples of Groups
	24-Jul-19	Examples of Groups
	25-Jul-19	Examples of Groups
	26-Jul-19	Examples of Groups
	27-Jul-19	Examples of Groups
	28-Jul-19	<b>SUNDAY</b>
3	29-Jul-19	Properties of Groups
	30-Jul-19	Properties of Groups
	31-Jul-19	<b>SHAHEED UDHAM SINGH MARTYRDOM DAY</b>
	1-Aug-19	Properties of Groups
	2-Aug-19	Order of an element of a group
	3-Aug-19	<b>HARIYALI TEEJ</b>
	4-Aug-19	<b>SUNDAY</b>
4	5-Aug-19	Order of an element of a group
	6-Aug-19	Subgroups
	7-Aug-19	Subgroups
	8-Aug-19	Cosets
4	9-Aug-19	Cosets
	10-Aug-19	Lagrange's Theorem
	11-Aug-19	<b>SUNDAY</b>
5	12-Aug-19	<b>ID-UL-ZUHA (BAKR-ID)</b>
	13-Aug-19	Problem discussion
	14-Aug-19	Test
	15-Aug-19	<b>INDEPENDENCE DAY / RAKSHA BANDHAN</b>
	16-Aug-19	Cyclic Groups
	17-Aug-19	Cyclic Groups
	18-Aug-19	<b>SUNDAY</b>
6	19-Aug-19	Cyclic Groups
	20-Aug-19	Cyclic Groups
	21-Aug-19	Normal Subgroups
	22-Aug-19	Normal Subgroups
	23-Aug-19	Normal Subgroups
	24-Aug-19	<b>JANAMASHTMI</b>
	25-Aug-19	<b>SUNDAY</b>
7	26-Aug-19	Problem discussion
	27-Aug-19	Quotient Groups
	28-Aug-19	Quotient Groups
	29-Aug-19	Homomorphisms
	30-Aug-19	Homomorphisms

	31-Aug-19	Homomorphisms
	1-Sep-19	<b>SUNDAY</b>
8	2-Sep-19	Automorphisms on a group
	3-Sep-19	Automorphisms on a group
	4-Sep-19	Automorphisms on a group
	5-Sep-19	Automorphisms on a group
8	6-Sep-19	Automorphisms on a group
	7-Sep-19	Automorphisms on a group
	8-Sep-19	<b>Sunday</b>
9	9-Sep-19	Permutation Groups
	10-Sep-19	Permutation Groups
	11-Sep-19	Permutation Groups
	12-Sep-19	Problem discussion
	13-Sep-19	Problem discussion
	14-Sep-19	Rings and Fields
	15-Sep-19	<b>SUNDAY</b>
10	16-Sep-19	Rings and Fields
	17-Sep-19	Rings and Fields
	18-Sep-19	Integral Domains
	19-Sep-19	Problem discussion
	20-Sep-19	Ideals of a ring
	21-Sep-19	Ideals of a ring
	22-Sep-19	<b>SUNDAY</b>
11	23-Sep-19	<b>SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY</b>
	24-Sep-19	Ideals of a ring
	25-Sep-19	Ideals of a ring
	26-Sep-19	Problem discussion
	27-Sep-19	Problem discussion
	28-Sep-19	Quotient Rings
	29-Sep-19	<b>SUNDAY (MAHARAJA AGRASEN JAYANTI)</b>
12	30-Sep-19	Quotient Rings
	1-Oct-19	Problem discussion
	2-Oct-19	<b>MAHATMA GANDHI JAYANTI</b>
	3-Oct-19	More on Ideals
12	4-Oct-19	More on Ideals
	5-Oct-19	More on Ideals
	6-Oct-19	<b>SUNDAY</b>
13	7-Oct-19	More on Ideals
	8-Oct-19	More on Ideals
	9-Oct-19	Ring Homomorphisms
	10-Oct-19	Ring Homomorphisms
	11-Oct-19	Ring Homomorphisms
	12-Oct-19	Ring Homomorphisms
	13-Oct-19	<b>SUNDAY (MAHARISHI VALMIKI JAYANTI)</b>
14	14-Oct-19	Problem discussion
	15-Oct-19	Test
	16-Oct-19	Euclidean Domains
	17-Oct-19	<b>KARVA CHAUGH</b>
	18-Oct-19	
	19-Oct-19	Euclidean Domains

	20-Oct-19	<b>SUNDAY</b>
<b>15</b>	21-Oct-19	Euclidean Domains
	22-Oct-19	Problem discussion
	23-Oct-19	Test
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION - I (DIWALI))</b>
<b>16</b>	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	Polynomial Rings
<b>16</b>	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	Polynomial Rings
	3-Nov-19	<b>SUNDAY</b>
<b>17</b>	4-Nov-19	Polynomial Rings
	5-Nov-19	Polynomial Rings
	6-Nov-19	Polynomial Rings
	7-Nov-19	Cayley's Theorem
	8-Nov-19	Cayley's Theorem
	9-Nov-19	Problem discussion
	10-Nov-19	<b>SUNDAY</b>
<b>18</b>	11-Nov-19	Problem discussion
	12-Nov-19	Unique Factorization Domain
	13-Nov-19	Unique Factorization Domain
	14-Nov-19	Unique Factorization Domain
	15-Nov-19	Unique Factorization Domain
	16-Nov-19	Problem discussion
	17-Nov-19	<b>SUNDAY</b>
<b>19</b>	18-Nov-19	Problem discussion

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LESSON PLAN(SESSION 2019-20)

LESSON PLAN: 19 WEEKS(JULY – NOV)

WEEK	DATE	CLASS - B.Sc. (III) Section - A Subject - Nuclear Physics
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (SCIENCE)
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (COMMERCE)
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (ARTS)
	21-Jul-19	SUNDAY
2	22-Jul-19	
	23-Jul-19	
	24-Jul-19	
	25-Jul-19	Nuclear reactions : Nuclear reaction, Elastic scattering, Inelastic scattering, Nuclear disintegration
	26-Jul-19	Photo nuclear reaction, Radiative capture, Direct reaction, Heavy ion reaction & Spallation reaction
	27-Jul-19	Conservation laws, Q-values
	28-Jul-19	SUNDAY
3	29-Jul-19	
	30-Jul-19	
	31-Jul-19	SHAHEED UDHAM SINGH MARTYRDOM DAY
	1-Aug-19	Threshold reaction, Nuclear reactor
	2-Aug-19	General aspects of reactor design
	3-Aug-19	HARIYALI TEEJ
	4-Aug-19	SUNDAY
4	5-Aug-19	
	6-Aug-19	
	7-Aug-19	
	8-Aug-19	Nuclear fission reactor (Principle, construction, working & uses)
4	9-Aug-19	Nuclear fusion reactor ( Principle, construction, working & uses)
	10-Aug-19	Nuclear structure & properties of nuclei: Nuclear composition
	11-Aug-19	SUNDAY
5	12-Aug-19	ID-UL-ZUHA (BAKR-ID)
	13-Aug-19	
	14-Aug-19	
	15-Aug-19	INDEPENDENCE DAY / RAKSHA BANDHAN
	16-Aug-19	Mass & binding energy, Systemetics of binding energy
	17-Aug-19	Nuclear stability, nuclear size
	18-Aug-19	SUNDAY
6	19-Aug-19	
	20-Aug-19	
	21-Aug-19	
	22-Aug-19	Spin, parity, statistics, magnetic dipole moment
	23-Aug-19	Quadrupole moment, Determination of mass by Bain Bridge mass spectrograph
	24-Aug-19	JANAMASHTMI
	25-Aug-19	SUNDAY
7	26-Aug-19	
	27-Aug-19	
	28-Aug-19	
	29-Aug-19	Bain Bridge and Jordan mass spectrograph
	30-Aug-19	Determination of charge by Moseley Law
	31-Aug-19	Determination of size of nucleus by Rutherford back scattering
	1-Sep-19	SUNDAY
8	2-Sep-19	
	3-Sep-19	
	4-Sep-19	
	5-Sep-19	Rutherford back scattering
	6-Sep-19	Numerical problem
8	7-Sep-19	Conditional test
	8-Sep-19	SUNDAY
	9-Sep-19	
9	10-Sep-19	
	11-Sep-19	
	12-Sep-19	Nuclear accelerator, Linear accelerator

	13-Sep-19	Linear accelerator, Tandem accelerator
	14-Sep-19	Cyclotron
	15-Sep-19	<b>SUNDAY</b>
10	16-Sep-19	
	17-Sep-19	
	18-Sep-19	
	19-Sep-19	Betatron accelerator
	20-Sep-19	Nuclear radiation detectors: Ionisation chamber
	21-Sep-19	Proportional counter
	22-Sep-19	<b>SUNDAY</b>
11	23-Sep-19	<b>SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY</b>
	24-Sep-19	
	25-Sep-19	
	26-Sep-19	G.M. Counter
	27-Sep-19	G.M. Counter, Scintillation counter
	28-Sep-19	Semiconductor detectors
	29-Sep-19	<b>SUNDAY (MAHARAJA AGRASEN JAYANTI)</b>
12	30-Sep-19	
	1-Oct-19	
	2-Oct-19	<b>MAHATMA GANDHI JAYANTI</b>
	3-Oct-19	Radiation interactions: Interaction of heavy charged particles (Alpha particles)
12	4-Oct-19	Energy loss of heavy charged particles, Range & Range straggling of alpha particles
	5-Oct-19	Geiger nuttel law, Interaction of light charged particles
	6-Oct-19	<b>SUNDAY</b>
13	7-Oct-19	
	8-Oct-19	<b>DUSSEHRA</b>
	9-Oct-19	
	10-Oct-19	Energy loss of Beta particle, Range of electrons
	11-Oct-19	Absorption of Beta particles, Interaction of gamma rays
	12-Oct-19	Passage of gamma radiation through matter, Photoelectric effect
	13-Oct-19	<b>SUNDAY (MAHARISHI VALMIKI JAYANTI)</b>
14	14-Oct-19	
	15-Oct-19	
	16-Oct-19	
	17-Oct-19	<b>KARVA CHAATH</b>
	18-Oct-19	Compton effect, Pair production, Electron positron annihilation
	19-Oct-19	Absorption of gamma rays( Mass attenuation coefficient) & its application
	20-Oct-19	<b>SUNDAY</b>
15	21-Oct-19	
	22-Oct-19	
	23-Oct-19	
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION - I (DIWALI))</b>
16	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	Nuclear radiation decay process: Alpha disintegration & its theory, Energetics of alpha decay
16	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	Origin of continuous beta spectrum
	3-Nov-19	<b>SUNDAY</b>
17	4-Nov-19	
	5-Nov-19	
	6-Nov-19	
	7-Nov-19	Types of beta decay, Energetics of beta decay
	8-Nov-19	Nature of gamma rays, Energetics of gamma rays
	9-Nov-19	Revision
18	10-Nov-19	<b>SUNDAY</b>
	11-Nov-19	
	12-Nov-19	
	13-Nov-19	
	14-Nov-19	Revision

	15-Nov-19	Revision
	16-Nov-19	Revision
	17-Nov-19	<b>SUNDAY</b>
<b>19</b>	18-Nov-19	

**I.B. (PG) COLLEGE, PANIPAT**

**LESSON PLAN (SESSION 2019-20)**

**LESSON PLAN: 19 WEEKS (JULY – NOV)**

WEEK	DATE	CLASS: B.A. III Subject: Numerical Analysis
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT ( <b>SCIENCE</b> )
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT ( <b>COMMERCE</b> )
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT ( <b>ARTS</b> )
	21-Jul-19	<b>SUNDAY</b>
2	22-Jul-19	Finite Difference Operators
	23-Jul-19	Forward and Backward Differences
	24-Jul-19	Properties of Operators
	25-Jul-19	Fundamental Theorem of Difference Calculus
	26-Jul-19	Questions based on Forward and Backward Differences
	27-Jul-19	Questions based on Forward and Backward Differences
	28-Jul-19	<b>SUNDAY</b>
3	29-Jul-19	Effect of an Error in a Tabular Value
	30-Jul-19	Effect of an Error in a Tabular Value
	31-Jul-19	<b>SHAHEED UDHAM SINGH MARTYRDOM DAY</b>
	1-Aug-19	One or More Missing Term
	2-Aug-19	One or More Missing Term
	3-Aug-19	<b>HARIYALI TEEJ</b>
	4-Aug-19	<b>SUNDAY</b>
4	5-Aug-19	Problem Discussion
	6-Aug-19	Interpolation with Equal Intervals
	7-Aug-19	Newton's Formula for Forward Interpolation
	8-Aug-19	Newton's Formula for Backward Interpolation
4	9-Aug-19	Questions based on Interpolation with Equal Intervals
	10-Aug-19	Questions based on Interpolation with Equal Intervals
	11-Aug-19	<b>SUNDAY</b>
5	12-Aug-19	<b>ID-UL-ZUHA (BAKR-ID)</b>
	13-Aug-19	Subdivision of Intervals
	14-Aug-19	Subdivision of Intervals
	15-Aug-19	<b>INDEPENDENCE DAY / RAKSHA BANDHAN</b>
	16-Aug-19	Subdivision of Intervals
	17-Aug-19	Problem Discussion
	18-Aug-19	<b>SUNDAY</b>
6	19-Aug-19	Interpolation with Unequal Intervals
	20-Aug-19	Theorems
	21-Aug-19	Newton's Divided Difference Formula
	22-Aug-19	Questions based on Newton's Divided Difference Formula
	23-Aug-19	Questions based on Newton's Divided Difference Formula
	24-Aug-19	<b>JANAMASHTMI</b>
	25-Aug-19	<b>SUNDAY</b>
7	26-Aug-19	Questions based on Newton's Divided Difference Formula
	27-Aug-19	Lagrange's Interpolation Formula
	28-Aug-19	Questions based on Lagrange's Interpolation Formula
	29-Aug-19	Questions based on Lagrange's Interpolation Formula
	30-Aug-19	Hermite's Interpolation Formula



	31-Aug-19	Problem Discussion
	1-Sep-19	<b>SUNDAY</b>
8	2-Sep-19	Central Difference Interpolation Formulae
	3-Sep-19	Central Difference Interpolation Formulae
	4-Sep-19	Problem Discussion
	5-Sep-19	Bessel's Formula
	6-Sep-19	Sterling's Formula
8	7-Sep-19	Problem Discussion
	8-Sep-19	<b>SUNDAY</b>
	9-Sep-19	Numerical Differentiation
9	10-Sep-19	Numerical Differentiation
	11-Sep-19	Formulae for Numerical Differentiation
	12-Sep-19	Formulae for Numerical Differentiation
	13-Sep-19	Questions based on Numerical Differentiation
	14-Sep-19	Questions based on Numerical Differentiation
	15-Sep-19	<b>SUNDAY</b>
	16-Sep-19	Questions based on Numerical Differentiation
10	17-Sep-19	Problem Discussion
	18-Sep-19	Numerical Integration
	19-Sep-19	Formulae for Numerical Integration
	20-Sep-19	Trapezoidal rule
	21-Sep-19	Trapezoidal rule
	22-Sep-19	<b>SUNDAY</b>
	23-Sep-19	<b>SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY</b>
11	24-Sep-19	Simpson's Rule
	25-Sep-19	Questions based on Simpson's Rule
	26-Sep-19	Gauss Quadrature Formula
	27-Sep-19	Gauss Quadrature Formula
	28-Sep-19	Questions based on Gauss Quadrature Formula
	29-Sep-19	<b>SUNDAY (MAHARAJA AGRASEN JAYANTI)</b>
	30-Sep-19	Questions based on Gauss Quadrature Formula
12	1-Oct-19	Problem Discussion
	2-Oct-19	<b>MAHATMA GANDHI JAYANTI</b>
	3-Oct-19	Numerical Solution of ODE
	4-Oct-19	Euler's Method
12	5-Oct-19	Euler's Method
	6-Oct-19	<b>SUNDAY</b>
	7-Oct-19	Conditional Test
13	8-Oct-19	<b>DUSSEHRA</b>
	9-Oct-19	Euler's Modified Method
	10-Oct-19	Euler's Modified Method
	11-Oct-19	Runge-Kutta and Taylor's Series Method
	12-Oct-19	Runge-Kutta and Taylor's Series Method
	13-Oct-19	<b>SUNDAY (MAHARISHI VALMIKI JAYANTI)</b>
	14-Oct-19	Runge-Kutta and Taylor's Series Method
14	15-Oct-19	Problem Discussion
	16-Oct-19	Picard's Method
	17-Oct-19	<b>KARVA CHAUGH</b>
	18-Oct-19	Picard's Method
	19-Oct-19	Predictor-Corrector Method

	20-Oct-19	<b>SUNDAY</b>
<b>15</b>	21-Oct-19	Predictor-Corrector Method
	22-Oct-19	Predictor-Corrector Method
	23-Oct-19	Predictor-Corrector Method
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION - I (DIWALI))</b>
<b>16</b>	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	Problem Discussion
<b>16</b>	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	Probability Distributions
	3-Nov-19	<b>SUNDAY</b>
<b>17</b>	4-Nov-19	Probability Distributions
	5-Nov-19	Probability Distribution of a Random Variable
	6-Nov-19	Probability Distribution of a Random Variable
	7-Nov-19	Mean and Variance
	8-Nov-19	Binomial Distribution
	9-Nov-19	Binomial Distribution
	10-Nov-19	<b>SUNDAY</b>
<b>18</b>	11-Nov-19	Poisson and Normal Distribution
	12-Nov-19	Poisson and Normal Distribution
	13-Nov-19	Problem Discussion
	14-Nov-19	Eigen Value Problems
	15-Nov-19	Eigen Value Problems
	16-Nov-19	Eigen Value Problems
	17-Nov-19	<b>SUNDAY</b>
<b>19</b>	18-Nov-19	Problem Discussion

I.B. (PG) COLLEGE, PANIPAT

LESSON PLAN (SESSION 2019-20)

LESSON PLAN: 19 WEEKS (JULY – NOV)

WEEK	DATE	CLASS: B.Sc. III Course: Plant Biotechnology
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (SCIENCE)
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (COMMERCE)
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (ARTS)
	21-Jul-19	SUNDAY
2	22-Jul-19	Plant Tissue Culture: Introduction/Concept, History, Scope and Applications along with major achievements
	23-Jul-19	Plant Tissue Culture: Introduction/Concept, History, Scope and Applications along with major achievements
	24-Jul-19	Plant Tissue Culture Laboratory
	25-Jul-19	
	26-Jul-19	
	27-Jul-19	
	28-Jul-19	SUNDAY
3	29-Jul-19	Plant Tissue Culture Laboratory
	30-Jul-19	Aseptic Techniques
	31-Jul-19	SHAHEED UDHAM SINGH MARTYRDOM DAY
	1-Aug-19	
	2-Aug-19	
	3-Aug-19	HARIYALI TEEJ
	4-Aug-19	SUNDAY
4	5-Aug-19	maintenance of aseptic conditions
	6-Aug-19	maintenance of aseptic conditions
	7-Aug-19	maintenance of aseptic conditions
	8-Aug-19	
4	9-Aug-19	
	10-Aug-19	
	11-Aug-19	SUNDAY
5	12-Aug-19	ID-UL-ZUHA (BAKR-ID)
	13-Aug-19	maintenance of aseptic conditions
	14-Aug-19	In-vitro methods in plant tissue culture
	15-Aug-19	INDEPENDENCE DAY / RAKSHA BANDHAN
	16-Aug-19	
	17-Aug-19	
	18-Aug-19	SUNDAY
6	19-Aug-19	In-vitro methods in plant tissue culture
	20-Aug-19	In-vitro methods in plant tissue culture
	21-Aug-19	Callus and suspension culture techniques
	22-Aug-19	
	23-Aug-19	
	24-Aug-19	JANAMASHTMI
7	25-Aug-19	SUNDAY
	26-Aug-19	Callus and suspension culture techniques
	27-Aug-19	Somaclonal variation.
	28-Aug-19	Somaclonal variation.
	29-Aug-19	
	30-Aug-19	
	31-Aug-19	
8	1-Sep-19	SUNDAY
	2-Sep-19	Organ culture
	3-Sep-19	Organ culture
	4-Sep-19	Organ culture
	5-Sep-19	
8	6-Sep-19	
	7-Sep-19	
	8-Sep-19	SUNDAY
9	9-Sep-19	Organ culture
	10-Sep-19	Organ culture
	11-Sep-19	Organ culture
	12-Sep-19	
	13-Sep-19	
	14-Sep-19	
	15-Sep-19	SUNDAY
	16-Sep-19	Protoplast culture

10	17-Sep-19	Protoplast culture
	18-Sep-19	Protoplast culture
	19-Sep-19	
	20-Sep-19	
	21-Sep-19	
	22-Sep-19	<b>SUNDAY</b>
11	23-Sep-19	<b>SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY</b>
	24-Sep-19	Production of secondary metabolites in vitro
	25-Sep-19	Production of secondary metabolites in vitro
	26-Sep-19	
	27-Sep-19	
	28-Sep-19	
	29-Sep-19	<b>SUNDAY (MAHARAJA AGRASEN JAYANTI)</b>
12	30-Sep-19	Biotransformation
	1-Oct-19	Plant germ plasm conservation and cryopreservation
	2-Oct-19	<b>MAHATMA GANDHI JAYANTI</b>
	3-Oct-19	
12	4-Oct-19	
	5-Oct-19	
	6-Oct-19	<b>SUNDAY</b>
13	7-Oct-19	Introduction, Plant transformation
	8-Oct-19	<b>DUSSEHRA</b>
	9-Oct-19	Introduction, Plant transformation
	10-Oct-19	
	11-Oct-19	
	12-Oct-19	
	13-Oct-19	<b>SUNDAY (MAHARISHI VALMIKI JAYANTI)</b>
14	14-Oct-19	Introduction, Plant transformation
	15-Oct-19	Transgenic Plants: Introduction and applications
	16-Oct-19	Transgenic Plants: Introduction and applications
	17-Oct-19	<b>KARVA CHAOUTH</b>
	18-Oct-19	
	19-Oct-19	
	20-Oct-19	<b>SUNDAY</b>
15	21-Oct-19	Transgenic Plants: Introduction and applications
	22-Oct-19	Transgenic Plants: Introduction and applications
	23-Oct-19	Transgenic Plants: Introduction and applications
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION -I (DIWALI))</b>
16	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	
16	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	
	3-Nov-19	<b>SUNDAY</b>
17	4-Nov-19	Transgenic Plants: Introduction and applications
	5-Nov-19	Transgenic Plants: Introduction and applications
	6-Nov-19	Assignment
	7-Nov-19	
	8-Nov-19	
	9-Nov-19	
	10-Nov-19	<b>SUNDAY</b>
18	11-Nov-19	Guru Nanak Birthday
	12-Nov-19	Test
	13-Nov-19	Revision
	14-Nov-19	
	15-Nov-19	
	16-Nov-19	
	17-Nov-19	<b>SUNDAY</b>
19	18-Nov-19	

**I.B. (PG) COLLEGE, PANIPAT**

**LESSON PLAN (SESSION 2019-20)**

**LESSON PLAN: 19 WEEKS (JULY – NOV)**

WEEK	DATE	CLASS: B.Sc. III Course: Plant Ecology
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(SCIENCE)</b>
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(COMMERCE)</b>
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(ARTS)</b>
	21-Jul-19	<b>SUNDAY</b>
2	22-Jul-19	
	23-Jul-19	
	24-Jul-19	
	25-Jul-19	<b>Introduction to Ecology</b>
	26-Jul-19	<b>Introduction to Ecology</b>
	27-Jul-19	<b>Scope of Ecology</b>
28-Jul-19	<b>SUNDAY</b>	
3	29-Jul-19	
	30-Jul-19	
	31-Jul-19	<b>SHAHEED UDHAM SINGH MARTYRDOM DAY</b>
	1-Aug-19	<b>Levels of Organisation, Environment</b>
	2-Aug-19	<b>Environmental Components</b>
	3-Aug-19	<b>HARIYALI TEEJ</b>
	4-Aug-19	<b>SUNDAY</b>
4	5-Aug-19	
	6-Aug-19	
	7-Aug-19	
	8-Aug-19	<b>Climatic Factors- Water</b>
4	9-Aug-19	<b>Climatic Factors- Water, Humidity</b>
	10-Aug-19	<b>Climatic Factors- Wind and Light</b>
	11-Aug-19	<b>SUNDAY</b>
5	12-Aug-19	<b>ID-UL-ZUHA (BAKR-ID)</b>
	13-Aug-19	
	14-Aug-19	
	15-Aug-19	<b>INDEPENDENCE DAY / RAKSHA BANDHAN</b>
	16-Aug-19	<b>Climatic Factors- Light</b>
	17-Aug-19	<b>Edaphic Factors- Soil Complex</b>
	18-Aug-19	<b>SUNDAY</b>
6	19-Aug-19	
	20-Aug-19	
	21-Aug-19	
	22-Aug-19	<b>Soil- Physico-chemical Properties</b>
	23-Aug-19	<b>Soil-Profiles</b>
	24-Aug-19	<b>JANAMASHTMI</b>
	25-Aug-19	<b>SUNDAY</b>
7	26-Aug-19	
	27-Aug-19	
	28-Aug-19	
	29-Aug-19	<b>Topographic Factors</b>
	30-Aug-19	<b>Biotic Factors</b>

	31-Aug-19	Hydrophytes- Adaptations
	1-Sep-19	SUNDAY
8	2-Sep-19	
	3-Sep-19	
	4-Sep-19	
	5-Sep-19	Xerophytes- Adaptations
8	6-Sep-19	Halophytes- Adaptations
	7-Sep-19	Population Ecology- Concept
	8-Sep-19	SUNDAY
9	9-Sep-19	
	10-Sep-19	
	11-Sep-19	
	12-Sep-19	Population Characteristics-Qualitative
	13-Sep-19	Population Characteristics-Qualitative
	14-Sep-19	Biotic Potential
	15-Sep-19	SUNDAY
10	16-Sep-19	
	17-Sep-19	
	18-Sep-19	
	19-Sep-19	Growth Curves, Ecotypes, Ecads
	20-Sep-19	Community Characteristics-I
	21-Sep-19	Community Characteristics-II
	22-Sep-19	SUNDAY
11	23-Sep-19	SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY
	24-Sep-19	
	25-Sep-19	
	26-Sep-19	Community Analysis
	27-Sep-19	Ecological Succession
	28-Sep-19	Ecosystem Structure
	29-Sep-19	SUNDAY (MAHARAJA AGRASEN JAYANTI)
12	30-Sep-19	
	1-Oct-19	
	2-Oct-19	MAHATMA GANDHI JAYANTI
	3-Oct-19	Ecosystem Functions-Trophic Levels
12	4-Oct-19	Ecosystem -Food Chains, webs
	5-Oct-19	Ecological Pyramids
	6-Oct-19	SUNDAY
13	7-Oct-19	
	8-Oct-19	DUSSEHRA
	9-Oct-19	
	10-Oct-19	Energy Flow
	11-Oct-19	Revision, Discussion and Doubts
	12-Oct-19	Assignments
	13-Oct-19	SUNDAY (MAHARISHI VALMIKI JAYANTI)
14	14-Oct-19	
	15-Oct-19	
	16-Oct-19	
	17-Oct-19	KARVA CHAUGH
	18-Oct-19	Class Test
	19-Oct-19	Carbon Cycle

	20-Oct-19	<b>SUNDAY</b>
<b>15</b>	21-Oct-19	
	22-Oct-19	
	23-Oct-19	
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION - I (DIWALI))</b>
<b>16</b>	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	<b>Nitrogen Cycle</b>
<b>16</b>	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	<b>Hydrological Cycle</b>
	3-Nov-19	<b>SUNDAY</b>
<b>17</b>	4-Nov-19	
	5-Nov-19	
	6-Nov-19	
	7-Nov-19	<b>Phytogeographical Regions of India</b>
	8-Nov-19	<b>Vegetation Types of India</b>
	9-Nov-19	<b>Vegetation Types of India,Contd.....</b>
	10-Nov-19	<b>SUNDAY</b>
<b>18</b>	11-Nov-19	<b>Guru Nanak Birthday</b>
	12-Nov-19	
	13-Nov-19	
	14-Nov-19	<b>Environmental Pollution-Air,Water</b>
	15-Nov-19	<b>Pollution Abatement,Greenhouse Gases and effects</b>
	16-Nov-19	<b>Impacts of GlobalWarming,Carbon Trading</b>
	17-Nov-19	<b>SUNDAY</b>
<b>19</b>	18-Nov-19	

**I.B. (PG) COLLEGE, PANIPAT**

**LESSON PLAN (SESSION 2019-20)**

**LESSON PLAN: 19 WEEKS (JULY – NOV)**

WEEK	DATE	CLASS B.Sc. III Course: Plant Physiology...
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(SCIENCE)</b>
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(COMMERCE)</b>
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(ARTS)</b>
	21-Jul-19	<b>SUNDAY</b>
2	22-Jul-19	<b>Plant Water Relations</b>
	23-Jul-19	<b>Plant Water Relations</b>
	24-Jul-19	<b>Plant Water Relations</b>
	25-Jul-19	
	26-Jul-19	
	27-Jul-19	
	28-Jul-19	<b>SUNDAY</b>
3	29-Jul-19	<b>Absorption of Water</b>
	30-Jul-19	<b>Absorption of Water</b>
	31-Jul-19	<b>SHAHEED UDHAM SINGH MARTYRDOM DAY</b>
	1-Aug-19	
	2-Aug-19	
	3-Aug-19	<b>HARIYALI TEEJ</b>
	4-Aug-19	<b>SUNDAY</b>
4	5-Aug-19	<b>Translocation of water</b>
	6-Aug-19	<b>Translocation of water</b>
	7-Aug-19	<b>Translocation of water</b>
	8-Aug-19	
4	9-Aug-19	
	10-Aug-19	
	11-Aug-19	<b>SUNDAY</b>
5	12-Aug-19	<b>ID-UL-ZUHA (BAKR-ID)</b>
	13-Aug-19	<b>Mineral nutrition</b>
	14-Aug-19	<b>Mineral nutrition</b>
	15-Aug-19	<b>INDEPENDENCE DAY / RAKSHA BANDHAN</b>
	16-Aug-19	
	17-Aug-19	
	18-Aug-19	<b>SUNDAY</b>
6	19-Aug-19	<b>Uptake of mineral nutrient</b>
	20-Aug-19	<b>Uptake of mineral nutrient</b>
	21-Aug-19	<b>Translocation of organic solute</b>
	22-Aug-19	
	23-Aug-19	
	24-Aug-19	<b>JANAMASHTMI</b>
	25-Aug-19	<b>SUNDAY</b>
7	26-Aug-19	<b>Translocation of organic solute</b>
	27-Aug-19	<b>Translocation of organic solute</b>
	28-Aug-19	<b>Photosystem-1</b>
	29-Aug-19	
	30-Aug-19	



	31-Aug-19	
	1-Sep-19	<b>SUNDAY</b>
<b>8</b>	2-Sep-19	<b>Photosystem-1</b>
	3-Sep-19	<b>Photosystem-1</b>
	4-Sep-19	<b>Photosystem-1</b>
	5-Sep-19	
<b>8</b>	6-Sep-19	
	7-Sep-19	
	8-Sep-19	<b>SUNDAY</b>
<b>9</b>	9-Sep-19	<b>Photosystem-2</b>
	10-Sep-19	<b>Photosystem-2</b>
	11-Sep-19	<b>Photosystem-2</b>
	12-Sep-19	
	13-Sep-19	
	14-Sep-19	
	15-Sep-19	<b>SUNDAY</b>
<b>10</b>	16-Sep-19	<b>Respiration-1</b>
	17-Sep-19	<b>Respiration-1</b>
	18-Sep-19	<b>Respiration-1</b>
	19-Sep-19	
	20-Sep-19	
	21-Sep-19	
	22-Sep-19	<b>SUNDAY</b>
<b>11</b>	23-Sep-19	<b>SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY</b>
	24-Sep-19	<b>Respiration-1</b>
	25-Sep-19	<b>Respiration-2</b>
	26-Sep-19	<b>Respiration-2</b>
	27-Sep-19	
	28-Sep-19	
	29-Sep-19	<b>SUNDAY (MAHARAJA AGRASEN JAYANTI)</b>
<b>12</b>	30-Sep-19	<b>Respiration-2</b>
	1-Oct-19	<b>Seed gemination and Dormancy</b>
	2-Oct-19	<b>MAHATMA GANDHI JAYANTI</b>
	3-Oct-19	
<b>12</b>	4-Oct-19	
	5-Oct-19	
	6-Oct-19	<b>SUNDAY</b>
<b>13</b>	7-Oct-19	<b>Seed gemination and Dormancy</b>
	8-Oct-19	<b>DUSSEHRA</b>
	9-Oct-19	<b>Seed gemination and Dormancy</b>
	10-Oct-19	
	11-Oct-19	
	12-Oct-19	
	13-Oct-19	<b>SUNDAY (MAHARISHI VALMIKI JAYANTI)</b>
<b>14</b>	14-Oct-19	<b>Senescence and fruit ripening</b>
	15-Oct-19	<b>Senescence and fruit ripening</b>
	16-Oct-19	<b>Senescence and fruit ripening</b>
	17-Oct-19	<b>KARVA CHAUGH</b>
	18-Oct-19	
	19-Oct-19	

	20-Oct-19	<b>SUNDAY</b>
<b>15</b>	21-Oct-19	<b>Physiology of flowering</b>
	22-Oct-19	<b>Physiology of flowering</b>
	23-Oct-19	<b>Physiology of flowering</b>
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION - I (DIWALI))</b>
<b>16</b>	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	
<b>16</b>	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	
	3-Nov-19	<b>SUNDAY</b>
<b>17</b>	4-Nov-19	<b>Physiology of flowering</b>
	5-Nov-19	<b>Physiology of flowering</b>
	6-Nov-19	<b>Plant movement</b>
	7-Nov-19	
	8-Nov-19	
	9-Nov-19	
	10-Nov-19	<b>SUNDAY</b>
<b>18</b>	11-Nov-19	<b>Guru Nanak Birthday</b>
	12-Nov-19	<b>Plant movement</b>
	13-Nov-19	<b>Revision</b>
	14-Nov-19	
	15-Nov-19	
	16-Nov-19	
	17-Nov-19	<b>SUNDAY</b>
<b>19</b>	18-Nov-19	<b>Revision</b>

I.B. (PG) COLLEGE, PANIPAT

LESSON PLAN(SESSION 2019-20)

LESSON PLAN: 19 WEEK (JULY – NOV)

WEEK	DATE	CLASS -B.Sc.(III) Section-A Subject- Quantum & Laser Physics
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (SCIENCE)
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (COMMERCE)
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT (ARTS)
	21-Jul-19	SUNDAY
2	22-Jul-19	Introduction of quantum mechanics,scale of quantum physics,boundary between classical and quantum mechanics,failure of classical mechanics.
	23-Jul-19	Plank quantum theory of radiation,photon, characteristics of photon,photoelectric effect
	24-Jul-19	photoelectric effect,frank-hertz experiment, numerical
	25-Jul-19	
	26-Jul-19	
	27-Jul-19	
	28-Jul-19	SUNDAY
3	29-Jul-19	Compton effect,energy of scattered photon,numerical
	30-Jul-19	Relation between angle of scattered photon and angle of recoil electron,kinetic energy of recoiling electron in term of angle of scattered photon,K.E. of recoiling electron in term of angle of scattering electron,experimental significance of compton effect
	31-Jul-19	SHAHEED UDHAM SINGH MARTYRDOM DAY
	1-Aug-19	
	2-Aug-19	
	3-Aug-19	HARIYALI TEEJ
	4-Aug-19	SUNDAY
4	5-Aug-19	Inadequacies of old quantum theory,de -Broglie hypothesis dual nature of matter ,numerical
	6-Aug-19	de-Broglie wavelength of accelerated charged particle,experimental verification of wave - particle duality,numerical
	7-Aug-19	phase velocity and wave velocity expression for wave packets and wave function ,group velocity
	8-Aug-19	
4	9-Aug-19	
	10-Aug-19	
	11-Aug-19	SUNDAY
5	12-Aug-19	ID-UL-ZUHA (BAKR-ID)
	13-Aug-19	Relation between group velocity and particle velocity,relation between phase velocity and group velocity for non-relativistic particle,free particle dispersion of matter wave
	14-Aug-19	Heisenberg uncertainty principle, experimental verification of uncertainty principle
	15-Aug-19	INDEPENDENCE DAY / RAKSHA BANDHAN
	16-Aug-19	
	17-Aug-19	
	18-Aug-19	SUNDAY
6	19-Aug-19	Application of heisenberg uncertainty principle ,difference between quantum and classical mechanics
	20-Aug-19	Schrodinger wave equation ,time independent schrodinger wave equation ,extension in 3-d,effect of external force
	21-Aug-19	Time independent or stationary state ,wave function and its physical significance
	22-Aug-19	
	23-Aug-19	
	24-Aug-19	JANAMASHTMI
7	25-Aug-19	SUNDAY
	26-Aug-19	Eigen value and eigen function,normalisation of wave function ,operator and observables,orthogonality of wave function
	27-Aug-19	Expectation values of dynamical quantities,probability current density,numerical discussion
	28-Aug-19	Problem discussion and revision (assignment-1)
	29-Aug-19	
	30-Aug-19	
	31-Aug-19	
8	1-Sep-19	SUNDAY
	2-Sep-19	Free particle in one dimensional box
	3-Sep-19	Energy eigen value,quantisation of momentum,potential step or single step barrier $E > V$
	4-Sep-19	Potential step or single step barrier $E < V$ ,leakage probability and penetration depth
	5-Sep-19	
8	6-Sep-19	
	7-Sep-19	
	8-Sep-19	SUNDAY

9	9-Sep-19	One dimensional potential barrier
	10-Sep-19	One dimensional potential barrier special case
	11-Sep-19	one dimensional or linear harmonic oscillator
	12-Sep-19	
	13-Sep-19	
	14-Sep-19	
	15-Sep-19	<b>SUNDAY</b>
10	16-Sep-19	Conditional test
	17-Sep-19	One dimensional linear harmonic oscillator or numerical problem
	18-Sep-19	Introduction ,atomic transition absorption and emission einstein coefficients
	19-Sep-19	
	20-Sep-19	
	21-Sep-19	
	22-Sep-19	<b>SUNDAY</b>
11	23-Sep-19	<b>SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY</b>
	24-Sep-19	Principle and main components of laser, properties of laser beam (assignment 2)
	25-Sep-19	Spatial and temporal coherence
	26-Sep-19	
	27-Sep-19	
	28-Sep-19	
	29-Sep-19	<b>SUNDAY (MAHARAJA AGRASEN JAYANTI)</b>
12	30-Sep-19	Momentum transfer, possibility of amplification,life time
	1-Oct-19	,kinetics of optical absorption(FI formula)
	2-Oct-19	<b>MAHATMA GANDHI JAYANTI</b>
	3-Oct-19	
12	4-Oct-19	
	5-Oct-19	
	6-Oct-19	<b>SUNDAY</b>
13	7-Oct-19	Laser pumping,metastable state,three laser pumpaing scheme
	8-Oct-19	<b>DUSSEHRA</b>
	9-Oct-19	Four level laser pumping,a necessary condition for light amplification
	10-Oct-19	
	11-Oct-19	
	12-Oct-19	
	13-Oct-19	<b>SUNDAY (MAHARISHI VALMIKI JAYANTI)</b>
14	14-Oct-19	Population inversion,the threshold condition,Numerical
	15-Oct-19	Broadening of spectral line ,Natural broadening
	16-Oct-19	Collision broadening
	17-Oct-19	<b>KARVA CHAUTH</b>
	18-Oct-19	
	19-Oct-19	
	20-Oct-19	<b>SUNDAY</b>
15	21-Oct-19	Doppler broadening and numerical
	22-Oct-19	Introduction of ruby laser
	23-Oct-19	gas laser(He-Ne) laser
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION -I (DIWALI))</b>
16	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	
16	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	
	3-Nov-19	<b>SUNDAY</b>
17	4-Nov-19	optical properties of semiconductor,
	5-Nov-19	semiconductor laser
	6-Nov-19	Application of laser physics,application of laser in communication
	7-Nov-19	
	8-Nov-19	
	9-Nov-19	
	10-Nov-19	<b>SUNDAY</b>
18	11-Nov-19	Revision
	12-Nov-19	Revision
	13-Nov-19	Revision
	14-Nov-19	
	15-Nov-19	
	16-Nov-19	
	17-Nov-19	<b>SUNDAY</b>
19	18-Nov-19	Revision

**I.B. (PG) COLLEGE, PANIPAT**

**LESSON PLAN (SESSION 2019-20)**

**LESSON PLAN: 19 WEEKS (JULY – NOV)**

WEEK	DATE	CLASS:- B.A. III      Subject:-REAL ANALYSIS
1	16-Jul-19	HAWAN & INAUGURATION SESSION 2019-20
	17-Jul-19	TIME-TABLE DISPLAY & DISCUSSION
	18-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(SCIENCE)</b>
	19-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(COMMERCE)</b>
	20-Jul-19	ORIENTATION PROGRAMME & LIBRARY VISIT <b>(ARTS)</b>
	21-Jul-19	<b>SUNDAY</b>
2	22-Jul-19	Preliminaries
	23-Jul-19	Concept of Lower and Upper Sums
	24-Jul-19	Concept of Lower and Upper Sums
	25-Jul-19	Reimann Integral
	26-Jul-19	Reimann Integral
	27-Jul-19	Theorems on upper and Lower Sums
	28-Jul-19	<b>SUNDAY</b>
3	29-Jul-19	Theorems on upper and Lower Sums
	30-Jul-19	Integrability of Continuous and Monotonic Functions
	31-Jul-19	<b>SHAHEED UDHAM SINGH MARTYRDOM DAY</b>
	1-Aug-19	Integrability of Continuous and Monotonic Functions
	2-Aug-19	Integrability of Continuous and Monotonic Functions
	3-Aug-19	<b>HARIYALI TEEJ</b>
	4-Aug-19	<b>SUNDAY</b>
4	5-Aug-19	Numericals Based on Integrability Concept
	6-Aug-19	Numericals Based on Integrability Concept
	7-Aug-19	Numericals Based on Integrability Concept
	8-Aug-19	Integrability of Continuous and Monotonic Functions
4	9-Aug-19	Integrability of Continuous and Monotonic Functions
	10-Aug-19	Proprties of Reimann Integral
	11-Aug-19	<b>SUNDAY</b>
5	12-Aug-19	<b>ID-UL-ZUHA (BAKR-ID)</b>
	13-Aug-19	Proprties of Reimann Integral
	14-Aug-19	Proprties of Reimann Integral
	15-Aug-19	<b>INDEPENDENCE DAY / RAKSHA BANDHAN</b>
	16-Aug-19	Proprties of Reimann Integral
	17-Aug-19	Integral As A Limit of Sums
	18-Aug-19	<b>SUNDAY</b>
6	19-Aug-19	Integral As A Limit of Sums
	20-Aug-19	Integral As A Limit of Sums
	21-Aug-19	Integral As A Limit of Sums
	22-Aug-19	The Fundamental Theorem OF Integral Calculus
	23-Aug-19	The Fundamental Theorem OF Integral Calculus
	24-Aug-19	<b>JANAMASHTMI</b>
	25-Aug-19	<b>SUNDAY</b>
7	26-Aug-19	Mean Value Theorms of Integral Calculus
	27-Aug-19	Mean Value Theorms of Integral Calculus
	28-Aug-19	Problem discussion
	29-Aug-19	Improper Integral and Their Convergence

	30-Aug-19	Improper Integral and Their Convergence
	31-Aug-19	Comparison Tests
	1-Sep-19	<b>SUNDAY</b>
<b>8</b>	2-Sep-19	Comparison Tests
	3-Sep-19	Abel and Dirichlet Test
	4-Sep-19	Abel and Dirichlet Test
	5-Sep-19	Frullani Integral
<b>8</b>	6-Sep-19	Test
	7-Sep-19	Problem discussion
	8-Sep-19	<b>SUNDAY</b>
<b>9</b>	9-Sep-19	Integral as a function of a parameter
	10-Sep-19	Integral as a function of a parameter
	11-Sep-19	Continuity and Differentiability
	12-Sep-19	Problem discussion
	13-Sep-19	Test
	14-Sep-19	Definition and exp of Metric Spaces
	15-Sep-19	<b>SUNDAY</b>
<b>10</b>	16-Sep-19	Definition and exp of Metric Spaces
	17-Sep-19	Neighbourhoods and Limit Points, Interior Points
	18-Sep-19	Neighbourhoods and Limit Points, Interior Points
	19-Sep-19	Open and Closed Sets
	20-Sep-19	Open and Closed Sets
	21-Sep-19	Open and Closed Sets
	22-Sep-19	<b>SUNDAY</b>
<b>11</b>	23-Sep-19	<b>SHAHEEDI DIVAS/HARYANA WAR HEROES' MARTYRDOM DAY</b>
	24-Sep-19	Boundary Points
	25-Sep-19	Theorems based on boundary points
	26-Sep-19	Theorems based on boundary points
	27-Sep-19	Subspace of a metric Space
	28-Sep-19	Subspace of a metric Space
	29-Sep-19	<b>SUNDAY (MAHARAJA AGRASEN JAYANTI)</b>
<b>12</b>	30-Sep-19	Subspace of a metric Space
	1-Oct-19	Subspace of a metric Space
	2-Oct-19	<b>MAHATMA GANDHI JAYANTI</b>
	3-Oct-19	Equivalent Metrics
<b>12</b>	4-Oct-19	Theorems on Equivalent Metrics
	5-Oct-19	Theorems on Equivalent Metrics
	6-Oct-19	<b>SUNDAY</b>
<b>13</b>	7-Oct-19	Theorems on Equivalent Metrics
	8-Oct-19	<b>DUSSEHRA</b>
	9-Oct-19	Cauchy Sequences
	10-Oct-19	Cauchy Sequences
	11-Oct-19	Cauchy Sequences
	12-Oct-19	Completeness
	13-Oct-19	<b>SUNDAY (MAHARISHI VALMIKI JAYANTI)</b>
<b>14</b>	14-Oct-19	Completeness
	15-Oct-19	Completeness
	16-Oct-19	Completeness
	17-Oct-19	<b>KARVA CHAUGH</b>
	18-Oct-19	Problem discussion

	19-Oct-19	Test
	20-Oct-19	<b>SUNDAY</b>
<b>15</b>	21-Oct-19	Cantor Intersection Theorem
	22-Oct-19	Cantor Intersection Theorem
	23-Oct-19	Cantor Intersection Theorem
	24-Oct-19	<b>VACATION -I (DIWALI)</b>
	25-Oct-19	<b>VACATION -I (DIWALI)</b>
	26-Oct-19	<b>VACATION -I (DIWALI)</b>
	27-Oct-19	<b>SUNDAY (VACATION - I (DIWALI))</b>
<b>16</b>	28-Oct-19	<b>VACATION -I (DIWALI)</b>
	29-Oct-19	<b>VACATION -I (DIWALI)</b>
	30-Oct-19	<b>VACATION -I (DIWALI)</b>
	31-Oct-19	Baire'S Category theorem
<b>16</b>	1-Nov-19	<b>HARYANA DAY</b>
	2-Nov-19	Baire'S Category theorem
	3-Nov-19	<b>SUNDAY</b>
<b>17</b>	4-Nov-19	Baire'S Category theorem
	5-Nov-19	Contraction Principal
	6-Nov-19	Contraction Principal
	7-Nov-19	Problem discussion
	8-Nov-19	Test
	9-Nov-19	Continuous Functions, Uniformly Continuous Functions
	10-Nov-19	<b>SUNDAY</b>
<b>18</b>	11-Nov-19	Compactness and Sequentially Compactness
	12-Nov-19	Compactness and Sequentially Compactness
	13-Nov-19	Bolzano Weirstrass Property
	14-Nov-19	Bolzano Weirstrass Property
	15-Nov-19	Finite Intersection Property and connectedness
	16-Nov-19	Finite Intersection Property and connectedness
	17-Nov-19	<b>SUNDAY</b>
<b>19</b>	18-Nov-19	Continuity In Relation With Connectedness