I – Academic Planner

A. Teaching Plan (Year : 2016 – 17) Semester: Odd /Even)

Teacher's Name: Dr. Renu Kathpalia Department: Botany

Sl. No.	UPC	Paper Name	Core /AECC/ GE/ SEC	Topic/Unit	Start Date	End Date
1	32161102	Biomolecules and Cell Biology (Theory)	Core	Unit 1 Biomolecules Unit-2 Bioenergetics Unit-3 Enzymes	20-8-2016 22-8-2016 18-8-2016	14-11-2016 4-11-2016 5-11-2016
2	32161102	Biomolecules and Cell Biology (Practical)	Core	1. Study of plant cell structure with the help of epidermal peel mount of Onion/Rhoeo/Crinum. 2. Study the phenomenon of plasmolysis and deplasmolysis. 3. Demonstration of the phenomenon of protoplasmic streaming in Hydrilla leaf. 4. Study different stages of mitosis. 5. Separate chloroplast pigments by paper chromatography. 6. Qualitative tests for carbohydrates, reducing sugars, non-reducing sugars, lipids and proteins. 7. Study of cell and its organelles with the help of electron micrographs. 8. Study the effect of organic solvent and temperature on membrane permeability. 9. Demonstrate the activity of Urease 10. Demonstration of the activity of Catalase 11. Demonstrate the activity of Amylase	On every Monday 23-8-2016	15-11-2016
3.	32161601	Plant Metabolism	Core	Unit1 Concept of Metabolism Unit 2. Carbon assimilation Unit 3. Carbohydrate Metabolism Unit4 Carbon Oxidation Unit 5. ATP synthesis Unit 6. Lipid Metabolism Unit 7. Nitrogen Metabolism Unit 8. Signal Transduction	5-01-2017 12-01-2017 3-02-2017 9-02-2017 2-03-2017 9-03-2017 23-03-2017 13-04-2017	7-01-2017 2-02-2017 4-02-2017 25-02-2017 4-02-2017 18-03-2017 8-04-2017 22-04-2017
2	32161601	Plant Metabolism	Core	1.Isolate the chloroplast pigments by chemical methods. 2. Demonstrate dye reduction by isolated chloroplasts 3. To study the effect of light intensity on the rate of photosynthesis (atleast three intensities) 4. Compare the rates of aerobic respiration in different parts of a plant (at least three parts).	4-01-2017	12-04-2017

				5. To study the activity of Nitrate Reductase in leaves of two plant sources. 6. To study the activity of urease enzyme and effect of substrate concentration on enzyme activity. 7. To study the effect of carbon dioxide on the rate of photosynthesis (at least three intensities) 8. Demonstration of fluorescence by isolated chloroplast pigments. 9 Demonstration of R.Q. 10.To demonstrate activity of lipase 11. To demonstrate absorption and action spectrum		

B. Internal Assessment: House Exam (Test/Presentation etc.) &Assignment*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Theory)	Assignment on Friday 18-12-2016 Presentation - 5 students per week on Thursday in extra period	
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Practical)	Test 5th March-2017	10th March-2017
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Theory)	Test: Unit-2 on 10-02-2017 Test: Unit 3 and 4 on 4-03-2017 Presentation - 5 students per week at the end of practical period	15-04-2017
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Practical)	19-04-2017	26-04-2017

***Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester**

I – Academic Planner

C. Teaching Plan (Year : 2017-18 Semester: Odd)

Teacher's Name: Dr. Renu Kathpalia Department: Botany

Sl. No.	UPC	Paper Name	Core/AECC/GE/SEC	Topic/Unit	Start Date	End Date
1	32161102	Biomolecules and Cell Biology (Theory)	Core	Unit 1 Biomolecules Unit-2 Bioenergetics Unit-3 Enzymes	26th July, 2017	8th November,2017
2	32161102	Biomolecules and Cell Biology (Practical)	Core	1. Study of plant cell structure with the help of epidermal peel mount of Onion/Rhoeo/Crinum. 2. Study the phenomenon of plasmolysis and deplasmolysis. 3. Demonstration of the phenomenon of protoplasmic streaming in Hydrilla leaf. 4. Study different stages of mitosis and meiosis. 5. Separate chloroplast pigments by paper chromatography. 6. Qualitative tests for carbohydrates, reducing sugars, non-reducing sugars, lipids and proteins. 7. Study of cell and its organelles with the help of electron micrographs. 8. Study the effect of organic solvent and temperature on membrane permeability. 9. Demonstrate the activity of Urease 10. Demonstration of the activity of Catalase 11. Demonstrate the activity of Amylase	24th July ,2017	6th Nov,2017
3.	32161303	Genetics	Core	Unit 2 Extra-chromosomal Inheritance Unit 4 Variation in Chromosome number and structure	23rd July, 2017	7th Nov, 2107
4.	32161502	Plant Physiology (Theory)	Core	Unit 1: Plant water relationship Unit 2: Mineral nutrition Unit 3:Nutrient uptake	23rd July,2017	7th Nov, 2017
5.	32161502	Plant Physiology (Practical)	Core	1.Determination of osmotic potential of plant cell sap by plasmolytic method. 2. Determination of water potential of given tissue (potato tuber) by weight method. 3. Determination of water potential of given tissue (potato tuber) by falling drop method. 4. Study of the effect of light on the rate of transpiration in excised twig/ leaf. 5. Calculation of stomatal index and stomatal frequency from the two surfaces of leaves of a mesophyte and a xerophyte.	25th July, 2017	9th Nov, 2017

				6. To calculate the area of an open stoma and percentage of leaf area open through stomata in a mesophyte and a xerophyte (any one surface). 7. To study the phenomenon of seed germination (effect of light and darkness). 8. To study the induction of amylase activity in germinating barley grains. 9. To demonstrate suction due to transpiration. 10. Fruit ripening. 11. Rooting from cuttings. 12. Bolting experiment. 13. To demonstrate the delay of senescence by cytokinins		

D. Internal Assessment: House Exam (Test/Presentation etc.) &Assignment*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Theory)	Test 25th Oct,2017 Presentation - 5 students per week at the end of practical period	1st Nov, 2017
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Practical)	Test 23rd Oct., 2017	31st Oct.,2017
556	B.Sc.(H) Botany	32161303	Genetics (Theory)	26th Oct,2017	1st Nov, 2017
556	B.Sc.(H) Botany	32161502	Plant Physiology (Theory)	Test:26th Oct ,2017 Presentation - 5 students per week at the end of practical period	1st Nov, 2017
556	B.Sc.(H) Botany	32161502	Plant Physiology (Practical)	27th, Oct.2017	18th Nov, 2017

***Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester**

I – Academic Planner

A. Teaching Plan (Year: 2017-18 Semester: Even)

Teacher's Name: Dr. Renu Kathpalia Department: Botany

Sl. No.	UPC	Paper Name	Core/AECC/GE/SEC	Topic/Unit
1	32161601	Plant Metabolism	Core	Unit1 Concept of Metabolism Unit 2. Carbon assimilation Unit 3. Carbohydrate Metabolism Unit4 Carbon Oxidation Unit 5. ATP synthesis Unit 6. Lipid Metabolism Unit 7. Nitrogen Metabolism Unit 8. Signal Transduction
2	32161601	Plant Metabolism	Core	1.Isolate the chloroplast pigments by chemical methods. 2. Demonstrate dye reduction by isolated chloroplasts 3. To study the effect of light intensity on the rate of photosynthesis (atleast three intensities) 4. Compare the rates of aerobic respiration in different parts of a plant (at least three parts). 5. To study the activity of Nitrate Reductase in leaves of two plant sources. 6. To study the activity of urease enzyme and effect of substrate concentration on enzyme activity. 7. To study the effect of carbon dioxide on the rate of photosynthesis (at least three intensities) 8. Demonstration of fluorescence by isolated chloroplast pigments. 9 Demonstration of R.Q. 10.To demonstrate activity of lipase 11. To demonstrate absorption and action spectrum
3.	42164401	Plant physiology and Metabolism	Core	1.Determine the osmotic potential of cell sap of the given material by plasmolytic method. 2. Study the effect of light intensity (three light intensities) on the rate transpiration using excised twig. 3. Study the effect of light intensity (three intensities) on O 2 evolutio photosynthesis. 4. Calculate the stomatal index and stomatal frequency of two surface of a xerophytic and a mesophytic leaf. 5. Study the effect of wind velocity (three light velocities) on the rate transpiration using excised twig. 6. Study the effect of pH on the catalase activity. 7. Demonstrate dye reduction by isolated chloroplasts. 8. Study the effect of bicarbonate concentration (three concentration on O 2 evolution in photosynthesis. 9. Compare the rates of aerobic respiration using two different parts plant. 10. To study the effect of enzyme concentration on the catalase activ 11. To Demonstrate bolting

				12. Effect of Auxin on rooting 13. Suction due to transpiration 14. To demonstrate effect of cytokinin on delay of senescence 15. Role of ethylene in fruit ripening.

B. Internal Assessment: House Exam (Test/Presentation etc.)&Assignment*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Theory)	Test: 4th April,2018 Presentation - 5 students per week at the end of practical period	18th April, 2018
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Practical)	10th April, 2018	17th April, 2018
	B.Sc.(Prog) Life Science	42164401	Plant Physiology and Metabolism	12th April ,2018	19th April, 2018

I – Academic Planner

A. Teaching Plan (Year: 2018-19 Semester: Odd)

Teacher's Name: Dr. Renu Kathpalia **Department: Botany**

Sl. No.	UPC	Paper Name	Core/AECC/GE/SEC	Topic/Unit	Start Date	End Date
1	32161102	Biomolecules and Cell Biology (Theory)	Core	Unit 1 Biomolecules Unit-2 Bioenergetics Unit-3 Enzymes	25rd July, 2018	14th Nov, 2018
2	32161102	Biomolecules and Cell Biology (Practical)	Core	1. Study of plant cell structure with the help of epidermal peel mount of Onion/Rhoeo/Crinum. 2. Study the phenomenon of plasmolysis and deplasmolysis. 3. Demonstration of the phenomenon of protoplasmic streaming in Hydrilla leaf. 4. Study different stages of mitosis and meiosis. 5. Separate chloroplast pigments by paper chromatography. 6. Qualitative tests for carbohydrates, reducing sugars, non-reducing sugars, lipids and proteins. 7. Study of cell and its organelles with the help of electron micrographs. 8. Study the effect of organic solvent and temperature on membrane permeability. 9. Demonstrate the activity of Urease 10. Demonstration of the activity of Catalase 11. Demonstrate the activity of Amylase	23rd July, 2018	12th Nov, 2018
3.	32161303	Genetics	Core	Unit 1. Mendelian Genetics Unit 2 Extra-chromosomal Inheritance Unit 4 Variation in Chromosome number and structure	24th July,2018	13th Nov, 2018
4.	32161502	Plant Physiology (Theory)	Core	Unit 1: Plant water relationship Unit 2: Mineral nutrition Unit 3: Nutrient uptake	27th July,2018	16th Nov, 2018
5.	32161502	Plant Physiology (Practical)	Core	1.Determination of osmotic potential of plant cell sap by plasmolytic method. 2. Determination of water potential of given tissue (potato tuber) by weight method. 3. Determination of water potential of given tissue (potato tuber) by falling drop method.	26th July,2018	15th Nov, 2018

				4. Study of the effect of light on the rate of transpiration in excised twig/ leaf. 5. Calculation of stomatal index and stomatal frequency from the two surfaces of leaves of a mesophyte and a xerophyte. 6. To calculate the area of an open stoma and percentage of leaf area open through stomata in a mesophyte and a xerophyte (any one surface). 7. To study the phenomenon of seed germination (effect of light and darkness). 8. To study the induction of amylase activity in germinating barley grains. 9. To demonstrate suction due to transpiration. 10. Fruit ripening. 11. Rooting from cuttings. 12. Bolting experiment. 13. To demonstrate the delay of senescence by cytokinins		

E. Internal Assessment: House Exam (Test/Presentation etc.)&Assignment*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Theory)	Test:31st Oct.2018 Presentation - 5 students per week at the end of practical period	7th Nov,2018
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Practical)	5th Nov, 2018	12th Nov,2018
556	B.Sc.(H) Botany	32161303	Genetics (Theory)	6th Nov, 2018	13th Nov,2018
556	B.Sc.(H) Botany	32161502	Plant Physiology (Theory)	Test: 2nd Nov, 2018 Presentation - 5 students per week at the end of practical period	9th Nov, 2018
556	B.Sc.(H) Botany	32161502	Plant Physiology (Practical)	1st Nov,2018	8th Nov, 2018

***Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester**

I – Academic Planner

B. Teaching Plan (Year: 2018-19 Semester: Even)

Teacher's Name: Dr. Renu Kathpalia Department: Botany

Sl. No.	UPC	Paper Name	Core/AECC/ GE/SEC	Topic/Unit	Start Date	EndDate
1	32161601	Plant Metabolism	Core	Unit1 Concept of Metabolism Unit 2. Carbon assimilation Unit 3. Carbohydrate Metabolism Unit4 Carbon Oxidation Unit 5. ATP synthesis Unit 6. Lipid Metabolism Unit 7. Nitrogen Metabolism Unit 8. Signal Transduction	1st Jan, 2019	23rd April, 2019
2	32161601	Plant Metabolism	Core	1.Isolate the chloroplast pigments by chemical methods. 2. Demonstrate dye reduction by isolated chloroplasts 3. To study the effect of light intensity on the rate of photosynthesis (atleast three intensities) 4. Compare the rates of aerobic respiration in different parts of a plant (at least three parts). 5. To study the activity of Nitrate Reductase in leaves of two plant sources. 6. To study the activity of urease enzyme and effect of substrate concentration on enzyme activity. 7. To study the effect of carbon dioxide on the rate of photosynthesis (at least three intensities) 8. Demonstration of fluorescence by isolated chloroplast pigments. 9 Demonstration of R.Q. 10.To demonstrate activity of lipase 11. To demonstrate absorption and action spectrum	7th Jan, 2019	29th April, 2019
3.	42164401	Plant physiology and	Core	1.Determine the osmotic potential of cell sap of the given material by plasmolytic method. 2. Study the effect of light intensity (three light intensities) on the rate of	3rd Jan, 2019	25th April, 2019

		Metab olism		transpiration using excised twig. 3. Study the effect of light intensity (three intensities) on O 2 evolution in photosynthesis. 4. Calculate the stomatal index and stomatal frequency of two surfaces of a xerophytic and a mesophytic leaf. 5. Study the effect of wind velocity (three light velocities) on the rate of transpiration using excised twig. 6. Study the effect of pH on the catalase activity. 7. Demonstrate dye reduction by isolated chloroplasts. 8. Study the effect of bicarbonate concentration (three concentrations) on O 2 evolution in photosynthesis. 9. Compare the rates of aerobic respiration using two different parts of a plant. 10. To study the effect of enzyme concentration on the catalase activity. 11. To Demonstrate bolting 12. Effect of Auxin on rooting 13. Suction due to transpiration 14. To demonstrate effect of cytokinin on delay of senescence 15. Role of ethylene in fruit ripening.		

C. Internal Assessment: House Exam (Test/Presentation etc.)&Assignment*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Theory)	Test:2nd April, 2019 Presentation - 5 students per week at the end of practical period	9th April, 2019
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Practical)	8th April, 2019	15th April, 2019
	B.Sc.(Prog) Life Science	42164401	Plant Physiology and Metabolism	11th April, 2019	18th April, 2019

I – Academic Planner

F. Teaching Plan (Year: 2019-20 Semester: Odd)

Teacher's Name: Dr. Renu Kathpalia Department: Botany

Sl. No.	UPC	Paper Name	Core/AECC/GE/SEC	Topic/Unit	Start Date	End Date
1	32161102	Biomolecules and Cell Biology (Theory)	Core	Unit 1 Biomolecules Unit-2 Bioenergetics Unit-3 Enzymes	26th July, 2019	15th Nov, 2019
2	32161102	Biomolecules and Cell Biology (Practical)	Core	1. Study of plant cell structure with the help of epidermal peel mount of Onion/Rhoeo/Crinum. 2. Study the phenomenon of plasmolysis and deplasmolysis. 3. Demonstration of the phenomenon of protoplasmic streaming in Hydrilla leaf. 4. Study different stages of mitosis and meiosis. 5. Separate chloroplast pigments by paper chromatography. 6. Qualitative tests for carbohydrates, reducing sugars, non-reducing sugars, lipids and proteins. 7. Study of cell and its organelles with the help of electron micrographs. 8. Study the effect of organic solvent and temperature on membrane permeability. 9. Demonstrate the activity of Urease 10. Demonstration of the activity of Catalase 11. Demonstrate the activity of Amylase	22nd July, 2019	11th Nov, 2019
3.	32161303	Genetics	Core	Unit 1 Genetics Unit 2 Extra-chromosomal Inheritance Unit 4 Variation in Chromosome number and structure	23rd July, 2019	12th Nov, 2019
4.	32161502	Plant Physiology (Theory)	Core	Unit 1: Plant water relationship Unit 2: Mineral nutrition Unit 3: Nutrient uptake	24th July, 2019	13th Nov, 2019
5.	32161502	Plant Physiology (Practical)	Core	1.Determination of osmotic potential of plant cell sap by plasmolytic method. 2. Determination of water potential of given tissue (potato tuber) by weight method. 3. Determination of water potential of given tissue (potato tuber) by falling drop method.	26th July, 2019	15th Nov, 2019

				4. Study of the effect of light on the rate of transpiration in excised twig/ leaf. 5. Calculation of stomatal index and stomatal frequency from the two surfaces of leaves of a mesophyte and a xerophyte. 6. To calculate the area of an open stoma and percentage of leaf area open through stomata in a mesophyte and a xerophyte (any one surface). 7. To study the phenomenon of seed germination (effect of light and darkness). 8. To study the induction of amylase activity in germinating barley grains. 9. To demonstrate suction due to transpiration. 10. Fruit ripening. 11. Rooting from cuttings. 12. Bolting experiment. 13. To demonstrate the delay of senescence by cytokinins		

G. Internal Assessment: House Exam (Test/Presentation etc.)&Assignment*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Theory)	Test: 8th Nov, 2019 Presentation - 5 students per week at the end of practical period	15th Nov, 2019
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Practical)	4th Nov, 2019	11th Nov, 2019
556	B.Sc.(H) Botany	32161303	Genetics (Theory)	29 Oct, 2019	5th Nov, 2019
556	B.Sc.(H) Botany	32161502	Plant Physiology (Theory)	30th Oct, 2019 Presentation - 5 students per week at the end of practical period	6th Nov, 2019
556	B.Sc.(H) Botany	32161502	Plant Physiology (Practical)	29th Oct, 2019	5th Nov, 2019

***Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester**

I – Academic Planner

D. Teaching Plan (Year: 2019-20 Semester: Even)

Teacher's Name: Dr. Renu Kathpalia Department: Botany

Sl. No.	UPC	Paper Name	Core/AECC/ GE/SEC	Topic/Unit	Start Date	EndDate
1	3216 1601	Plant Metab olism	Core	Unit1 Concept of Metabolism Unit 2. Carbon assimilation Unit 3. Carbohydrate Metabolism Unit4 Carbon Oxidation Unit 5. ATP synthesis Unit 6. Lipid Metabolism Unit 7. Nitrogen Metabolism Unit 8. Signal Transduction	7th Jan, 2020	24th April, 2020
2	3216 1601	Plant Metab olism	Core	1.Isolate the chloroplast pigments by chemical methods. 2. Demonstrate dye reduction by isolated chloroplasts 3. To study the effect of light intensity on the rate of photosynthesis (atleast three intensities) 4. Compare the rates of aerobic respiration in different parts of a plant (at least three parts). 5. To study the activity of Nitrate Reductase in leaves of two plant sources. 6. To study the activity of urease enzyme and effect of substrate concentration on enzyme activity. 7. To study the effect of carbon dioxide on the rate of photosynthesis (at least three intensities) 8. Demonstration of fluorescence by isolated chloroplast pigments. 9 Demonstration of R.Q. 10.To demonstrate activity of lipase 11. To demonstrate absorption and action spectrum	1st Jan, 2020	22nd April, 2020
3.	4216 4401	Plant physiol ogy and	Core	1.Determine the osmotic potential of cell sap of the given material by plasmolytic method. 2. Study the effect of light intensity (three light intensities) on the rate of	2nd Jan, 2020	23rd April, 2020

		Metabolism		transpiration using excised twig. 3. Study the effect of light intensity (three intensities) on O 2 evolution in photosynthesis. 4. Calculate the stomatal index and stomatal frequency of two surfaces of a xerophytic and a mesophytic leaf. 5. Study the effect of wind velocity (three light velocities) on the rate of transpiration using excised twig. 6. Study the effect of pH on the catalase activity. 7. Demonstrate dye reduction by isolated chloroplasts. 8. Study the effect of bicarbonate concentration (three concentrations) on O 2 evolution in photosynthesis. 9. Compare the rates of aerobic respiration using two different parts of a plant. 10. To study the effect of enzyme concentration on the catalase activity. 11. To Demonstrate bolting 12. Effect of Auxin on rooting 13. Suction due to transpiration 14. To demonstrate effect of cytokinin on delay of senescence 15. Role of ethylene in fruit ripening.		

E. Internal Assessment: House Exam (Test/Presentation etc.)&Assignment*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Theory)	30th April, 2020 Presentation - 5 students per week at the end of practical period	12th May, 2020
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Practical)	2nd June, 2020	9th June, 2020
	B.Sc.(Prog) Life Science	42164401	Plant Physiology and Metabolism	30th May, 2020	8th June, 2020

I – Academic Planner

H. Teaching Plan (Year : 2020-21 Semester: Odd /Even)

Teacher's Name: Dr. Renu Kathpalia Department: Botany

Sl. No.	UPC	Paper Name	Core /AECC/ GE/ SEC	Topic/Unit	Start Date	End Date
1	32161102	Biomolecules and Cell Biology (Theory)	Core	Unit 1 Biomolecules Unit-2 Bioenergetics Unit-3 Enzymes	20-11-2020 22-1-2021 18-2-2021	14-1-2020 4-2-2020 5-2-2020
2	32161102	Biomolecules and Cell Biology (Practical)	Core	1. Study of plant cell structure with the help of epidermal peel mount of Onion/Rhoeo/Crinum. 2. Study the phenomenon of plasmolysis and deplasmolysis. 3. Demonstration of the phenomenon of protoplasmic streaming in Hydrilla leaf. 4. Study different stages of mitosis. 5. Separate chloroplast pigments by paper chromatography. 6. Qualitative tests for carbohydrates, reducing sugars, non-reducing sugars, lipids and proteins. 7. Study of cell and its organelles with the help of electron micrographs. 8. Study the effect of organic solvent and temperature on membrane permeability. 9. Demonstrate the activity of Urease 10. Demonstration of the activity of Catalase 11. Demonstrate the activity of Amylase	On every Monday 23-11-2020	15-02-2021
3.	32161601	Plant Metabolism	Core	Unit1 Concept of Metabolism Unit 2. Carbon assimilation Unit 3. Carbohydrate Metabolism Unit4 Carbon Oxidation Unit 5. ATP synthesis Unit 6. Lipid Metabolism Unit 7. Nitrogen Metabolism Unit 8. Signal Transduction	5-01-2021 12-01-2021 3-02-2021 9-02-2021 2-03-2021 9-03-2021 23-03-2021 13-04-2021	7-01-2021 2-02-2021 4-02-2021 25-02-2021 4-02-2021 18-03-2021 8-04-2021 22-04-2021

2	32161601	Plant Metabolism	Core	1.Isolate the chloroplast pigments by chemical methods. 2. Demonstrate dye reduction by isolated chloroplasts 3. To study the effect of light intensity on the rate of photosynthesis (atleast three intensities) 4. Compare the rates of aerobic respiration in different parts of a plant (at least three parts). 5. To study the activity of Nitrate Reductase in leaves of two plant sources. 6. To study the activity of urease enzyme and effect of substrate concentration on enzyme activity. 7. To study the effect of carbon dioxide on the rate of photosynthesis (at least three intensities) 8. Demonstration of fluorescence by isolated chloroplast pigments. 9 Demonstration of R.Q. 10.To demonstrate activity of lipase 11. To demonstrate absorption and action spectrum	4-01-2021	12-04-2021

I. Internal Assessment: House Exam (Test/Presentation etc.) &Assignment*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Theory)	Assignment on Friday 18-12-2020 Presentation - 5 students per week on Thursday in extra period	
556	B.Sc.(H) Botany	32161102	Biomolecules and Cell Biology (Practical)	Test 5th March-2021	10th March-2021
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Theory)	Test: Unit-2 on 10-02-2021 Test: Unit 3 and 4 on 4-03-2021 Presentation - 5 students per	15-04-2021

				week at the end of practical period	
556	B.Sc.(H) Botany	32161102	Plant Metabolism (Practical)	19-04-2021	26-04-2021

***Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester**