

## Curriculum plan ( Even Semester 2021-22)

Teacher Name: Dr. K. Vandana Rani

Paper name: ZH DSE Course II: Animal Biotechnology

Class type: Theory

Paper shared with: Dr. Shanuja Beri

Unit to be taken	Allocated lectures	Month wise schedule to be followed	Tests/ Assignments/ Revision/ Presentations etc
<b>Unit 3: Advance Tools and Techniques</b> i) Southern, Northern and Western blotting ii) DNA sequencing: Sanger method, iii) Next generation sequencing (Illumina), iv) Polymerase Chain Reaction, v) DNA Finger Printing and vi) DNA microarray, Vii) Gene Editing Tools: a) Zinc finger nucleases (ZFNs), b) transcription activator-like effector based nucleases (TALEN) and c) the clustered regularly interspaced short palindromic repeats (CRISPR/Cas9) system	18	i) 4th -18th Jan2022 ii) 25th Jan2022 iii) 1st -8th Feb 2022  iv) 15th - 22nd Feb 2022 v) 1st - 8th March 2022 vi) 15th March 2022 Vii) a&b) 22nd March- 12th April 2022 c)19th -26th April 2022	Tests/ Assignments March 2022

Name of teacher : Dr. K. Vandana Rani

Signature

## Curriculum plan ( Even Semester 2021-22)

Teacher Name: Dr. K. Vandana Rani

Paper name: ZH DSE Course II Animal Biotechnology

Class type: Practical (G1+G2)

Paper shared with: Dr. Shanuja Beri

Unit to be taken	Allocated lectures	Month wise schedule to be followed G2 Group	Tests/Assignments/ Revision/ Presentations etc
1. Genomic DNA isolation from E. coli	4	03.01.2022/10.01.2022	
2. Plasmid DNA isolation (pUC 18/19) from E. coli	4	17.01. 2022/24.01.22	
3. Demonstration of Restriction digestion of plasmid/lambda DNA.	4	31. 01.22	Presentation
4. Construction of circular and linear restriction map from the data provided.	4	07.02.22/14.02.22	
5. Calculation of transformation efficiency from calcium Chloride method	4	21. 02.22	
6. To study following techniques through photographs a) Southern / Northern / Western Blotting b) PCR c) DNA fingerprinting d) DNA Sequencing (Sanger's Method)	4	a) 28. 02.22-07.03.22 b) 07. 03.22 c) 14. 03.22 d) 21. 03..22 e) 04.04.22	Viva
7. Project report on animal cell culture OR On visit to any Biotechnology Institute	4	11.04.22	
Moc exam & Revision		18.04.22-25.04.22	File Evaluation

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