

**BIOINFORMATICS SUBJECT MAPPING**  
**Educational Multimedia Research Centre**  
**University of Calicut**

SEM - 1, YEAR - 1

Paper Name - INFORMATICS AND INTRODUCTION TO BIOINFORMATICS

| Sl.No | YEAR/ PAPER   | e-Content Module No. | E-CONTENT LECTURE TITLE                      | VIDEO PROGRAMME TITLE (FOR VYAS CHANNEL)     | TOPIC NO. | Tape / PD No.      | Subject Expert  | Producer     | Remarks (if any) |
|-------|---|----------------------|--|--|-----------|--------------------|---|--------------|------------------|
| 1.    | SEM - 1, YEAR - 1<br>INFORMATICS AND INTRODUCTION TO BIOINFORMATICS | BI - 03              | OVERVIEW OF INFORMATION TECHNOLOGY- PART I   | OVERVIEW OF INFORMATION TECHNOLOGY- PART I   | 1         | ACLT / 23 XD -911  | SHOWMY RESHIN<br>KSCSTE FELLOW<br>RESEARCH SCHOLAR<br>DEPARTMENT OF BOTANY<br>UNIVERSITY OF CALICUT | Rajan Thomas |                  |
| 2.    | SEM - 1, YEAR - 1<br>INFORMATICS AND INTRODUCTION TO BIOINFORMATICS | BI - 04              | OVERVIEW OF INFORMATION TECHNOLOGY- PART II  | OVERVIEW OF INFORMATION TECHNOLOGY- PART II  | 2         | ACLT / 23 XD -911  | SHOWMY RESHIN<br>KSCSTE FELLOW<br>RESEARCH SCHOLAR<br>DEPARTMENT OF BOTANY<br>UNIVERSITY OF CALICUT | Rajan Thomas |                  |
| 3.    | SEM - 1, YEAR - 1<br>INFORMATICS AND INTRODUCTION TO BIOINFORMATICS | BI - 13              | OVERVIEW OF INFORMATION TECHNOLOGY- PART III | OVERVIEW OF INFORMATION TECHNOLOGY- PART III | 3         | ACLT / 23 XD - 959 | SHOWMY RESHIN<br>KSCSTE FELLOW<br>RESEARCH SCHOLAR<br>DEPARTMENT OF BOTANY<br>UNIVERSITY OF CALICUT | Rajan Thomas |                  |
| 4.    | SEM - 1, YEAR - 1<br>INFORMATICS AND INTRODUCTION TO BIOINFORMATICS | BI - 14              | OVERVIEW OF INFORMATION TECHNOLOGY- PART IV  | OVERVIEW OF INFORMATION TECHNOLOGY- PART IV  | 4         | ACLT / 23 XD - 959 | SHOWMY RESHIN<br>KSCSTE FELLOW<br>RESEARCH SCHOLAR<br>DEPARTMENT OF                                 | Rajan Thomas |                  |

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|    |   |         |  |   |   |                       | BOTANY<br>UNIVERSITY OF<br>CALICUT  |              |  |
| 5. | SEM - 1, YEAR - 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI - 15 | SKILLS FOR HIGHER<br>EDUCATION - PART I  | SKILLS FOR HIGHER<br>EDUCATION - PART I   | 5 | ACLT 23<br>XD - 990   | <b>Showmy Reshin</b><br><br>KSCSTE Fellow ,<br>Research Scholar ,<br>Department of<br>botany, University of<br>Calicut, Kerala  | Rajan Thomas |  |
| 6. | SEM - 1, YEAR - 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI - 16 | SKILLS FOR HIGHER<br>EDUCATION - PART II :<br>INTERNET AS A<br>KNOWLEDGE<br>REPOSITORY | SKILLS FOR HIGHER<br>EDUCATION - PART II :<br>INTERNET AS A<br>KNOWLEDGE<br>REPOSITORY  | 6 | ACLT 23<br>XD - 990   | <b>Dr.Jayasree.S</b><br><br>Associate Professor<br>Department of<br>Zoology<br><br>& coordinator<br>Bioinformatics<br>Course<br><br>Mercy College,<br>Palakkad , Kerala | Rajan Thomas |  |
| 7. | SEM - 1, YEAR - 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI - 17 | Information Technology And<br>Society<br>Part-I: IT And Society-Issues<br>And Concerns | Information Technology<br>And Society<br>Part-I: IT And Society-<br>Issues And Concerns | 7 | ACLT / 23<br>XD - 880 | <b>Dr.Jayasree.S</b><br><br>Associate Professor<br>Department of<br>Zoology<br><br>& coordinator<br>Bioinformatics<br>Course<br><br>Mercy College,<br>Palakkad , Kerala | Rajan Thomas |  |
| 8. | SEM - 1, YEAR - 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI - 18 | Information Technology And<br>Society<br>Part-II: Digital Divide                       | Information Technology<br>And Society<br>Part-II: Digital Divide                        | 8 | ACLT / 23<br>XD - 880 | <b>Dr.Jayasree.S</b><br><br>Associate Professor<br>Department of<br>Zoology<br><br>& coordinator<br>Bioinformatics  | Rajan Thomas |  |

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|     |   |         |   |   |    |                       | Course<br>Mercy College,<br>Palakkad , Kerala   |              |  |
| 9.  | SEM - 1, YEAR – 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI – 20 | BASIC CONCEPTS OF IPR,<br>COPYRIGHTS AND<br>PATENTS Part – I  | BASIC CONCEPTS OF<br>IPR, COPYRIGHTS AND<br>PATENTS Part – I  | 9  | ACLT / 23<br>XD –1032 | <b>Dr.Jayasree.S</b><br>Associate Professor<br>Department of<br>Zoology<br><br>& coordinator<br>Bioinformatics<br>Course<br><br>Mercy College,<br>Palakkad , Kerala | Rajan Thomas |  |
| 10. | SEM - 1, YEAR – 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI –21  | BASIC CONCEPTS OF IPR,<br>COPYRIGHTS AND<br>PATENTS Part – II   | BASIC CONCEPTS OF<br>IPR, COPYRIGHTS AND<br>PATENTS Part – II   | 10 | ACLT / 23<br>XD –1032 | <b>Dr.Jayasree.S</b><br>Associate Professor<br>Department of<br>Zoology<br><br>& coordinator<br>Bioinformatics<br>Course<br><br>Mercy College,<br>Palakkad , Kerala | Rajan Thomas |  |
| 11. | SEM - 1, YEAR – 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI – 22 | IT INDUSTRY: NEW<br>OPPORTUNITIES AND<br>NEW THREATS  | IT INDUSTRY: NEW<br>OPPORTUNITIES AND<br>NEW THREATS  | 11 | ACLT 23<br>XD – 1033  | <b>Showmy Reshin</b><br>KSCSTE Fellow ,<br>Research Scholar ,<br>Department of<br>botany, University of<br>Calicut  | Rajan Thomas |  |
| 12. | SEM - 1, YEAR – 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI-162  | INFORMATION<br>TECHNOLOGY AND<br>HEALTH ISSUES Part – I<br>GUIDE LINES FOR<br>PROPER USAGES OF<br>COMPUTERS | INFORMATION<br>TECHNOLOGY AND<br>HEALTH ISSUES Part – I<br>GUIDE LINES FOR<br>PROPER USAGES OF<br>COMPUTERS | 12 | ACLT 50<br>XD – 14    | <b>Dr.Jayasree.S</b><br>Associate Professor<br>Department of<br>Zoology<br><br>& coordinator<br>Bioinformatics  | Rajan Thomas |  |

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|     |   |         |   |   |    |                        | Course<br>Mercy College,<br>Palakkad , Kerala   |              |  |
| 13. | SEM - 1, YEAR – 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI-163  | INFORMATION<br>TECHNOLOGY AND<br>HEALTH ISSUES Part – 2<br>GUIDE LINES FOR<br>PROPER USAGES OF<br>INTERNET AND MOBILE<br>PHONES | INFORMATION<br>TECHNOLOGY AND<br>HEALTH ISSUES Part –<br>2 GUIDE LINES FOR<br>PROPER USAGES OF<br>INTERNET AND MOBILE<br>PHONES | 13 | ACLT 50XD<br>– 14      | <b>Dr.Jayasree.S</b><br>Associate Professor<br>Department of<br>Zoology<br><br>& coordinator<br>Bioinformatics<br>Course<br><br>Mercy College,<br>Palakkad , Kerala       | Rajan Thomas |  |
| 14. | SEM - 1, YEAR – 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI– 058 | INTRODUCTION TO<br>BIOLOGICAL DATABASES   | INTRODUCTION TO<br>BIOLOGICAL<br>DATABASES  | 14 | ACLT / 23<br>XD – 1374 | Nisha K.P<br>Research Scholar<br>Centre for<br>Bioinformatics,<br>Biomarker Discovery<br>& Information-Based<br>Medicine (CIBM)<br>University of<br>Newcastle , Australia | Rajan Thomas |  |
| 15. | SEM - 1, YEAR – 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI – 23 | ORIGIN OF<br>BIOINFORMATICS   | ORIGIN OF<br>BIOINFORMATICS   | 15 | ACLT / 23<br>XD –1034  | Nisha K.P<br>Research Scholar<br>Centre for<br>Bioinformatics,<br>Biomarker Discovery<br>& Information-Based<br>Medicine (CIBM)<br>University of<br>Newcastle , Australia | Rajan Thomas |  |
| 16. | SEM - 1, YEAR – 1<br>INFORMATICS AND<br>INTRODUCTION TO<br>BIOINFORMATICS | BI – 24 | IMPORTANCE & USE OF<br>BIOINFORMATICS   | IMPORTANCE & USE OF<br>BIOINFORMATICS   | 16 | ACLT / 23<br>XD –1033  | Nisha K.P<br>Research Scholar<br>Centre for<br>Bioinformatics,<br>Biomarker Discovery<br>& Information-Based<br>Medicine (CIBM)<br>University of<br>Newcastle , Australia | Rajan Thomas |  |

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| 17. | <b>SEM - 1, YEAR - 1</b><br><b>INFORMATICS AND INTRODUCTION TO BIOINFORMATICS</b> | BI- 059 | PRIMARY DATABASE                  | PRIMARY DATABASE                  | 17 | ACLT / 23<br>XD - 1375 | Nisha K.P<br>Research Scholar<br>Centre for<br>Bioinformatics,<br>Biomarker Discovery<br>& Information-Based<br>Medicine (CIBM)<br>University of<br>Newcastle , Australia | Rajan Thomas |  |
| 18. | <b>SEM - 1, YEAR - 1</b><br><b>INFORMATICS AND INTRODUCTION TO BIOINFORMATICS</b> | BI- 060 | SECONDARY DATABASES               | SECONDARY DATABASES               | 18 | ACLT / 23<br>XD - 1375 | Nisha K.P<br>Research Scholar<br>Centre for<br>Bioinformatics,<br>Biomarker Discovery<br>& Information-Based<br>Medicine (CIBM)<br>University of<br>Newcastle , Australia | Rajan Thomas |  |
| 19. | <b>SEM - 1, YEAR - 1</b><br><b>INFORMATICS AND INTRODUCTION TO BIOINFORMATICS</b> | BI 131  | DNA SEQUENCING-BASIC METHODS      | DNA SEQUENCING-BASIC METHODS      | 19 | ACLT / 50<br>XD -61    | Nisha K.P<br>Research Scholar<br>Centre for<br>Bioinformatics,<br>Biomarker Discovery<br>& Information-Based<br>Medicine (CIBM)<br>University of<br>Newcastle , Australia | Rajan Thomas |  |
| 20. | <b>SEM - 1, YEAR - 1</b><br><b>INFORMATICS AND INTRODUCTION TO BIOINFORMATICS</b> | BI129   | HUMAN GENOME PROJECT (HGP)        | HUMAN GENOME PROJECT (HGP)        | 20 | ACLT / 50<br>XD -61    | Nisha K.P<br>Research Scholar<br>Centre for<br>Bioinformatics,<br>Biomarker Discovery<br>& Information-Based<br>Medicine (CIBM)<br>University of<br>Newcastle , Australia | Rajan Thomas |  |
| 21. | <b>SEM - 1, YEAR - 1</b><br><b>INFORMATICS AND INTRODUCTION TO BIOINFORMATICS</b> | BI 130  | <b>NEXT GENERATION SEQUENCING</b> | <b>NEXT GENERATION SEQUENCING</b> | 21 | ACLT / 50<br>XD -61    | Nisha K.P<br>Research Scholar<br>Centre for<br>Bioinformatics,<br>Biomarker Discovery<br>& Information-Based<br>Medicine (CIBM)   | Rajan Thomas |  |

**SEM - 1 , YEAR - 1****Paper Name : STATISTICAL METHODS FOR BIOINFORMATICS**

| SI.No | YEAR/ PAPER   | e-Content Module No. | E-CONTENT LECTURE TITLE   | VIDEO PROGRAMME TITLE (FOR VYAS CHANNEL)                        | TOPIC NO. | Tape / PD No. | Subject Expert   | Producer         | Remarks (if any) |
|-------|---|----------------------|---|---|-----------|---------------|--|------------------|------------------|
| 22.   | SEM - 1 , YEAR - 1<br><b>STATISTICAL METHODS FOR BIOINFORMATICS</b> | BI-11                | Meaning and Scope of Statistics                                 | Meaning and Scope of Statistics                                 | 1         | ACLT/23XD-241 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |                  |
| 23.   | SEM - 1 , YEAR - 1<br><b>STATISTICAL METHODS FOR BIOINFORMATICS</b> | BI-33                | Classification and Tabulation                                   | Classification and Tabulation                                   | 2         | ACLT/23XD-241 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |                  |
| 24.   | SEM - 1 , YEAR - 1<br><b>STATISTICAL METHODS FOR BIOINFORMATICS</b> | BI-12                | Diagrammatic and Graphic Representation of Data – I<br>Diagrams | Diagrammatic and Graphic Representation of Data – I<br>Diagrams | 3         | ACLT/23XD-241 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |                  |
| 25.   | SEM - 1 , YEAR - 1<br><b>STATISTICAL METHODS FOR BIOINFORMATICS</b> | BI-25                | Diagrammatic and Graphic Representation of Data – II<br>Graphs  | Diagrammatic and Graphic Representation of Data – II<br>Graphs  | 4         | ACLT/23XD-241 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |                  |
| 26.   | SEM - 1 , YEAR - 1<br><b>STATISTICAL METHODS FOR BIOINFORMATICS</b> | BI-28                | Diagrammatic and Graphic Representation of Data –III<br>Graphs  | Diagrammatic and Graphic Representation of Data – III<br>Graphs | 5         | ACLT/23XD-544 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi                             | Sajith Kumar K S |                  |

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| 27. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> | BI-29 | Measures of Central<br>Tendency - Arithmetic Mean  | Measures of Central<br>Tendency - Arithmetic<br>Mean   | 6  | ACLT/23XD<br>-544 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 28. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> | BI-30 | Measures of Central<br>Tendency – Median and<br>Mode   | Measures of Central<br>Tendency – Median and<br>Mode   | 7  | ACLT/23XD<br>-91  | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 29. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> | BI-31 | Partition Values   | Partition Values   | 8  | ACLT/23XD<br>-91  | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 30. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> |       | Measures of Dispersion – I<br>Quartile Deviation and<br>Standard Deviation<br>Measures of Dispersion – I<br>Quartile Deviation and<br>Standard Deviation | Measures of Dispersion –<br>I Quartile Deviation and<br>Standard Deviation                                 | 9  | ACLT/23XD<br>-252 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 31. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> |       | Measures of Dispersion – II<br>Range, Mean Deviation,<br>Relative Measures and<br>Coefficient of Variation   | Measures of Dispersion –<br>II Range, Mean Deviation,<br>Relative Measures and<br>Coefficient of Variation | 10 | ACLT/23XD<br>-252 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 32. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> |       | Skewness and Kurtosis  | Skewness and Kurtosis  | 11 | ACLT/23XD<br>-252 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi                             | Sajith Kumar K S |  |

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| 33. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> | BI 034 | Correlation and Regression<br>– Part I (Correlation)             | Correlation and<br>Regression – Part I<br>(Correlation)          | 12 | ACLT/23XD<br>-1308 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 34. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> | BI 035 | Correlation and Regression<br>–PartII<br>(Regression Analysis)   | Correlation and<br>Regression –PartII<br>(Regression Analysis)   | 13 | ACLT/23XD<br>-1308 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 35. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> | BI 036 | Random Experiment,<br>Sample Space and Events<br>and Probability | Random Experiment,<br>Sample Space and<br>Events and Probability | 14 | ACLT/23XD<br>-1381 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 36. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> | BI 037 | Conditional Probability and<br>Independence of events            | Conditional Probability<br>and Independence of<br>events         | 15 | ACLT/23XD<br>-1314 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 37. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> | BI 038 | Statistical Estimation   | Statistical Estimation   | 16 | ACLT/23XD<br>-1314 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |
| 38. | SEM - 1 , YEAR - 1<br><b>STATISTICAL<br/>METHODS FOR<br/>BIOINFORMATICS</b> | BI 039 | Statistical Testing  | Statistical Testing  | 17 | ACLT/23XD<br>-1381 | Dr.Aneesh Kumar K<br>Department of<br>Statistics<br>Mahatma Gandhi<br>College<br>Iritty,Kannur | Sajith Kumar K S |  |



SEM – 2 , YEAR – 1

PAPER Name – Biological Databases

| SI No | Year / semester<br>Paper Name                     | E-CONT<br>MODULE<br>NO: | E-CONTENT LECTURE<br>TITLE  | Video Programme Title<br>(For Vyas Channel)                                      | TOPIC<br>NO. | Tape/PD<br>No    | SUBJECT<br>EXPERT | PRODUCER  | Remarks                          |
|-------|---|-------------------------|---|--|--------------|------------------|-------------------|---|----------------------------------|
| 39.   | SEM – 2 , YEAR – 1<br><br>Biological<br>Databases | BI 134                  | Origin, History, and Scope<br>of Bioinformatics                               | Origin, History, and<br>Scope of Bioinformatics                                  | 1            | ACLT/50<br>XD-59 | Deepti Madayi     | Sajeed Naduthody                                    | CompletedVideo<br>programme sent |
| 40.   | SEM – 2 , YEAR – 1<br><br>Biological<br>Databases | BI 135                  | Applications of<br>Bioinformatics   | Applications of<br>Bioinformatics  | 2            | ACLT/50<br>XD-59 | Deepti Madayi     | Sajeed Naduthody                                    | CompletedVideo<br>programme sent |
| 41.   | SEM – 2 , YEAR – 1<br><br>Biological<br>Databases | BI 136                  | Open Access<br>Bibliographic Resources:<br>Basic concepts and<br>Significance | Open Access<br>Bibliographic<br>Resources: Basic<br>concepts and<br>Significance | 3            | ACLT/50<br>XD-59 | Deepti Madayi     | Sajeed Naduthody                                    | CompletedVideo<br>programme sent |
| 42.   | SEM – 2 , YEAR – 1<br><br>Biological<br>Databases | BI 41                   | Important Biological<br>Databases   | Important Biological<br>Databases  | 4            | ACLT/50<br>XD-60 | Shanitha          | Sajeed Naduthody                                    | CompletedVideo<br>programme sent |
| 43.   | SEM – 2 , YEAR – 1<br><br>Biological<br>Databases | BI 155                  | Genome Databases  | Genome Databases   | 5            | ACLT/50<br>XD-62 | Deepti Madayi     | Sajeed Naduthody                                    | CompletedVideo<br>programme sent |
| 44.   | SEM – 2 , YEAR – 1<br><br>Biological<br>Databases | BI 133                  | Structural Databases  | Structural Databases   | 6            | ACLT/50<br>XD-60 | Deepti Madayi     | Sajeed<br>NaduthodyCompletedVideo<br>programme sent | CompletedVideo<br>programme sent |
| 45.   | SEM – 2 , YEAR – 1<br><br>Biological<br>Databases | BI 154                  | Related Databases of<br>Protein Structure                                     | Related Databases of<br>Protein Structure  | 7            | ACLT/50<br>XD-60 | Deepti Madayi     | Sajeed<br>NaduthodyCompleted. In<br>preview         | CompletedVideo<br>programme sent |

**SEM 3 , YEAR : 2**

**PAPER Name - Cell Biology**

| <b>Sl.No</b> | <b>YEAR/ PAPER</b>                       | <b>e-Content Module No.</b> | <b>E-CONTENT LECTURE TITLE</b>                  | <b>VIDEO PROGRAMME TITLE (FOR VYAS CHANNEL)</b> | <b>TOPIC NO.</b> | <b>Tape / PD No.</b>  | <b>Subject Expert (Full Official address)</b>                                      | <b>Producer</b> | <b>Remarks (if any)</b> |
|--------------|--|-----------------------------|---|---|------------------|-----------------------|--|-----------------|-------------------------|
| 46.          | <b>SEM 3 , YEAR : 2<br/>Cell Biology</b> | E-01                        | Protein and its Structure                       | Protein and its Structure                       | 22.              | ACLT / 23<br>XD – 836 | SHANITHA P.A.<br>Guest Lecturer in<br>Bioinformatics<br>Mercy College<br>Palakkad. | Sreemith.N      |                         |
| 47.          | <b>SEM 3 , YEAR : 2<br/>Cell Biology</b> | E-02                        | Protein-Classifications and functions           | Protein-Classification and functions            | 23.              | ACLT / 23<br>XD – 836 | SHANITHA P.A.<br>Guest Lecturer in<br>Bioinformatics<br>Mercy College<br>Palakkad. | Sreemith.N      |                         |
| 48.          | <b>SEM 3 , YEAR : 2<br/>Cell Biology</b> | BI-05                       | Structure and Function Of Cell membrane         | Structure and Function Of Cell membrane         | 24.              | ACLT / 23<br>XD – 806 | Deepti Madayi,<br>Department of<br>Biotechnology,<br>University of Calicut.        | Sreemith.N      |                         |
| 49.          | <b>SEM 3 , YEAR : 2<br/>Cell Biology</b> | BI-06                       | Structure and Function Of Cytosol               | Structure and Function Of Cytosol               | 25.              | ACLT / 23<br>XD –1023 | Deepti Madayi,<br>Department of<br>Biotechnology,<br>University of Calicut         | Sreemith.N      |                         |
| 50.          | <b>SEM 3 , YEAR : 2<br/>Cell Biology</b> | BI-07                       | Structure and Function Of Chloroplast           | Structure and Function Of Chloroplast           | 26.              | ACLT / 23<br>XD –1023 | Deepti Madayi,<br>Department of<br>Biotechnology,<br>University of Calicut         | Sreemith.N      |                         |
| 51.          | <b>SEM 3 , YEAR : 2<br/>Cell Biology</b> | BI-08                       | Structure and Function Of Endoplasmic reticulum | Structure and Function Of Endoplasmic reticulum | 27.              | ACLT / 23<br>XD –1023 | Deepti Madayi,<br>Department of<br>Biotechnology,<br>University of Calicut         | Sreemith.N      |                         |
| 52.          | <b>SEM 3 , YEAR : 2<br/>Cell Biology</b> | BI-09                       | Structure and Function Of Lysosomes             | Structure and Function Of Lysosomes             | 28.              | ACLT / 23<br>XD –995  | Deepti Madayi,<br>Department of<br>Biotechnology,<br>University of Calicut         | Sreemith.N      |                         |

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| 53. | SEM 3 , YEAR : 2<br>Cell Biology | BI-10  | Structure and Function Of Ribosomes   | Structure and Function Of Ribosomes   | 29. | ACLT / 23 XD –995   | Deepti Madayi, Department of Biotechnology, University of Calicut      | Sreemith.N |  |
| 54. | SEM 3 , YEAR : 2<br>Cell Biology | BI-080 | Structure and Function Of Chromosomes | Structure and Function Of Chromosomes | 30. |                     | Deepti Madayi, Department of Biotechnology, University of Calicut      | Sreemith.N |  |
| 55. | SEM 3 , YEAR : 2<br>Cell Biology | BI-032 | The cell and the various Cell Types   | The cell and the various Cell Types   | 31. |                     | SHANITHA P.A. Guest Lecturer in Bioinformatics Mercy College Palakkad. | Sreemith.N | To be Sent (Action to be taken by the Producer ) |
| 56. | SEM 3 , YEAR : 2<br>Cell Biology | BI-045 | Cell to cell Interactions             | Cell to cell Interactions             | 32. | ACLT / 23 XD – 1370 | Deepti Madayi, Department of Biotechnology, University of Calicut      | Sreemith.N |  |
| 57. | SEM 3 , YEAR : 2<br>Cell Biology | BI-046 | Chromosome                            | Chromosome                            | 33. |                     | Deepti Madayi, Department of Biotechnology, University of Calicut      | Sreemith.N |  |
| 58. | SEM 3 , YEAR : 2<br>Cell Biology | BI-079 | Cell Locomotion                       | Cell Locomotion                       | 34. | ACLT / 50 XD – 14   | SHANITHA P.A. Guest Lecturer in Bioinformatics Mercy College Palakkad. | Sreemith.N |  |

**SEM – 3 , YEAR – 2**

**PAPER Name - MOLECULAR BIOLOGY**

| Sl.No | YEAR/ PAPER                             | e-Content Module No. | E-CONTENT LECTURE TITLE                                | VIDEO PROGRAMME TITLE (FOR VYAS CHANNEL)               | TOPIC NO. | Tape / PD No.     | Subject Expert (Full Official address)          | Producer     | Remarks (if any) |
|-------|---|----------------------|--|--|-----------|-------------------|---|--------------|------------------|
| 59.   | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI– 63               | ORGANIZATION OF EUKARYOTIC AND PROKARYOTIC CHROMOSOMES | ORGANIZATION OF EUKARYOTIC AND PROKARYOTIC CHROMOSOMES | 1         | ACLT / 50 XD – 12 | Showmy K S<br>KSCSTE Fellow<br>Research Scholar | Rajan Thomas |                  |

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|     |   |         |  |  |   |                        | Department Of<br>Botany<br>University Of Calicut,<br>Kerala  |              |  |
| 60. | <b>SEM – 3 , YEAR – 2<br/>MOLECULAR BIOLOGY</b> | BI– 64  | <b>NUCLEIC ACIDS</b>   | <b>NUCLEIC ACIDS</b>   | 2 | ACLT / 50<br>XD – 12   | Showmy K S<br>KSCSTE Fellow<br>Research Scholar<br>Department Of<br>Botany<br>University Of Calicut,<br>Kerala | Rajan Thomas |  |
| 61. | <b>SEM – 3 , YEAR – 2<br/>MOLECULAR BIOLOGY</b> | BI– 061 | <b>TYPES AND FORMS OF<br/>DNA AND RNA</b>                      | <b>TYPES AND FORMS OF<br/>DNA AND RNA</b>                      | 3 | ACLT / 23<br>XD – 1374 | Showmy K S<br>KSCSTE Fellow<br>Research Scholar<br>Department Of<br>Botany<br>University Of Calicut,<br>Kerala | Rajan Thomas |  |
| 62. | <b>SEM – 3 , YEAR – 2<br/>MOLECULAR BIOLOGY</b> | BI– 66  | <b>CENTRAL DOGMA</b>   | <b>CENTRAL DOGMA</b>   | 4 | ACLT / 50<br>XD – 14   | Showmy K S<br>KSCSTE Fellow<br>Research Scholar<br>Department Of<br>Botany<br>University Of Calicut,<br>Kerala | Rajan Thomas |  |
| 63. | <b>SEM – 3 , YEAR – 2<br/>MOLECULAR BIOLOGY</b> | BI– 65  | <b>DNA REPLICATION IN<br/>PROKARYOTES &amp;<br/>EUKARYOTES</b> | <b>DNA REPLICATION IN<br/>PROKARYOTES &amp;<br/>EUKARYOTES</b> | 5 | ACLT / 50<br>XD – 12   | Showmy K S<br>KSCSTE Fellow<br>Research Scholar<br>Department Of<br>Botany                                     | Rajan Thomas |  |

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|     |   |         |   |   |   |                      | University Of Calicut,<br>Kerala  |              |  |
| 64. | <b>SEM – 3 , YEAR – 2<br/>MOLECULAR BIOLOGY</b> | BI-160  | <b>TRANSCRIPTION IN<br/>PROKARYOTES</b>                                 | <b>TRANSCRIPTION IN<br/>PROKARYOTES</b>                                 | 6 | ACLT / 50<br>XD –48  | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 65. | <b>SEM – 3 , YEAR – 2<br/>MOLECULAR BIOLOGY</b> | BI -115 | <b>PROKARYOTIC<br/>TRANSCRIPTION<br/>MACHINERY</b>                      | <b>PROKARYOTIC<br/>TRANSCRIPTION<br/>MACHINERY</b>                      | 7 | ACLT / 50<br>XD –48  | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 66. | <b>SEM – 3 , YEAR – 2<br/>MOLECULAR BIOLOGY</b> | BI– 77  | <b>TRANSLATION<br/>MACHINERY AND<br/>TRANSLATION IN<br/>PROKARYOTES</b> | <b>TRANSLATION<br/>MACHINERY AND<br/>TRANSLATION IN<br/>PROKARYOTES</b> | 8 | ACLT / 50<br>XD – 12 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |

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| 67. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI -113 | TRANSCRIPTION IN<br>EUKARYOTES   | TRANSCRIPTION IN<br>EUKARYOTES   | 9  | ACLT / 50<br>XD –61 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 68. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI- 114 | TRANSCRIPTION<br>MACHINERY OF<br>EUKARYOTES:<br>COMPLEXITIES AND<br>MECHANISMS | TRANSCRIPTION<br>MACHINERY OF<br>EUKARYOTES:<br>COMPLEXITIES AND<br>MECHANISMS | 10 | ACLT / 50<br>XD –52 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 69. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI- 050 | TRANSLATION IN<br>EUKARYOTES AND POST<br>TRANSLATIONAL<br>PROCESSING           | TRANSLATION IN<br>EUKARYOTES AND<br>POST TRANSLATIONAL<br>PROCESSING           | 11 | ACLT / 50<br>XD –52 | Dr. V. S. Binitha,<br>Assistant Professor<br>Department Of<br>Zoology<br>Sree Narayana<br>College<br>Nattika, Thrissur.<br>Kerala                                   | Rajan Thomas |  |
| 70. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI 122  | GENETIC CODE AND<br>MECHANISM OF<br>TRANSLATION                                | GENETIC CODE AND<br>MECHANISM OF<br>TRANSLATION                                | 12 | ACLT / 50<br>XD –62 | APARNA M. B.<br>Research Fellow<br>Interuniversity<br>Centre for Plant<br>Biotechnology<br>Dept. of Botany<br>University of Calicut,                                | Rajan Thomas |  |

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|     |   |         |   |   |    |                     | Kerala  |              |  |
| 71. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI -118 | POST-TRANSCRIPTIONAL<br>MODIFICATIONS: A<br>EUKARYOTIC<br>PERSPECTIVE | POST-<br>TRANSCRIPTIONAL<br>MODIFICATIONS: A<br>EUKARYOTIC<br>PERSPECTIVE | 13 | ACLT / 50<br>XD –57 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 72. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI 119  | RNA POLYMERASE: THE<br>ENZYME ESSENTIAL TO<br>LIFEPART-1              | RNA POLYMERASE: THE<br>ENZYME ESSENTIAL TO<br>LIFEPART-1                  | 14 | ACLT / 50<br>XD –57 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 73. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI 125  | RNA POLYMERASE: THE<br>ENZYME ESSENTIAL TO<br>LIFEPART-2              | RNA POLYMERASE: THE<br>ENZYME ESSENTIAL TO<br>LIFEPART-2                  | 15 | ACLT / 50<br>XD –57 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |

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| 74. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI- 112 | THE ROLE OF<br>CHROMATIN STRUCTURE<br>AND REGULATION OF<br>TRANSCRIPTION           | THE ROLE OF<br>CHROMATIN<br>STRUCTURE AND<br>REGULATION OF<br>TRANSCRIPTION        | 16 | ACLT / 50<br>XD –52 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala                            | Rajan Thomas |  |
| 75. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI 123  | TRANSLATION<br>REGULATION, RNA<br>INSTABILITY, AND<br>INHIBITORS OF<br>TRANSLATION | TRANSLATION<br>REGULATION, RNA<br>INSTABILITY, AND<br>INHIBITORS OF<br>TRANSLATION | 17 | ACLT / 50<br>XD –58 | <b>APARNA M. B.</b><br><b>Research Fellow</b><br><b>Interuniversity</b><br><b>Centre for Plant</b><br><b>Biotechnology</b><br><b>Dept. of Botany</b><br><b>University of</b><br><b>Calicut</b> | Rajan Thomas |  |
| 76. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI- 126 | RNA EDITING – ALTERING<br>THE INFORMATION OF<br>MRNA MOLECULES                     | RNA EDITING –<br>ALTERING THE<br>INFORMATION OF MRNA<br>MOLECULES                  | 18 | ACLT / 50<br>XD –52 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala                            | Rajan Thomas |  |
| 77. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI- 128 | EXPRESSION OF GENE:<br>RNA PROCESSING  | EXPRESSION OF GENE:<br>RNA PROCESSING  | 19 | ACLT / 50<br>XD –52 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center  | Rajan Thomas |  |



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|     |   |         |   |   |    |                    | College of Agriculture, Vellayani. Thiruvananthapuram, Kerala   |              |  |
| 78. | <b>SEM – 3 , YEAR – 2 MOLECULAR BIOLOGY</b> | BI 127  | <b>REGULATORY REGIONS IN DNA</b>  | <b>REGULATORY REGIONS IN DNA</b>  | 20 | ACLT / 50 XD –61   | Dr. Savitha K Koilery<br>Guest Lecturer, Integrated Biotechnology Center<br><br>College of Agriculture, Vellayani. Thiruvananthapuram, Kerala | Rajan Thomas |  |
| 79. | <b>SEM – 3 , YEAR – 2 MOLECULAR BIOLOGY</b> | BI- 116 | <b>REGULATION OF GENE EXPRESSION Part – 1 : OPERON CIRCUITS</b>                                   | <b>REGULATION OF GENE EXPRESSION Part – 1 : OPERON CIRCUITS</b>                                   | 21 | ACLT / 50 XD –48   | Dr. Savitha K Koilery<br>Guest Lecturer, Integrated Biotechnology Center<br><br>College of Agriculture, Vellayani. Thiruvananthapuram, Kerala | Rajan Thomas |  |
| 80. | <b>SEM – 3 , YEAR – 2 MOLECULAR BIOLOGY</b> | BI- 117 | <b>REGULATION OF GENE EXPRESSION Part – 2 : OPERON CIRCUITS IN BACTERIA AND OTHER PROKARYOTES</b> | <b>REGULATION OF GENE EXPRESSION Part – 2 : OPERON CIRCUITS IN BACTERIA AND OTHER PROKARYOTES</b> | 22 | ACLT / 23 XD –1651 | Dr. Savitha K Koilery<br>Guest Lecturer, Integrated Biotechnology Center<br><br>College of Agriculture,                                       | Rajan Thomas |  |

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| 81. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI- 078 | MOLECULAR BASIS OF<br>MUTATION       | MOLECULAR BASIS OF<br>MUTATION       | 23 | ACLT / 50<br>XD –44 | Dr.Jayasree.S<br>Associate Professor<br>and Head<br>Department of<br>Zoology<br>& coordinator<br>Bioinformatics<br>Course<br>Mercy College,<br>Palakkad, Kerala | Rajan Thomas |  |
| 82. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI-067  | TYPES OF MUTATION                    | TYPES OF MUTATION                    | 24 | ACLT / 50<br>XD –58 | Dr.Jayasree.S<br>Associate Professor<br>and Head<br>Department of<br>Zoology<br>& coordinator<br>Bioinformatics<br>Course<br>Mercy College,<br>Palakkad         | Rajan Thomas |  |
| 83. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI 121  | SPONTANEOUS AND<br>INDUCED MUTATIONS | SPONTANEOUS AND<br>INDUCED MUTATIONS | 25 | ACLT / 50<br>XD –57 | Dr.Jayasree.S<br>Associate Professor<br>and Head<br>Department of<br>Zoology<br>& coordinator<br>Bioinformatics<br>Course<br>Mercy College,<br>Palakkad, Kerala | Rajan Thomas |  |
| 84. | SEM – 3 , YEAR – 2<br>MOLECULAR BIOLOGY | BI -120 | SITE-DIRECTED                        | SITE-DIRECTED                        | 26 | ACLT / 50           | Dr.Jayasree.S<br>Associate Professor  | Rajan Thomas |  |

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|     |   |        | <b>MUTAGENESIS</b>  | <b>MUTAGENESIS</b>  |    | XD -58              | and Head<br>Department of<br>Zoology<br>& coordinator<br>Bioinformatics<br>Course<br>Mercy College,<br>Palakkad, Kerala   |              |  |
| 85. | <b>SEM - 3 , YEAR - 2<br/>MOLECULAR BIOLOGY</b> | BI 124 | <b>DNA REPAIR<br/>MECHANISMS</b>                                | <b>DNA REPAIR<br/>MECHANISMS</b>                                | 27 | ACLT / 50<br>XD -57 | Dr.Jayasree.S<br>Associate Professor<br>and Head<br>Department of<br>Zoology<br>& coordinator<br>Bioinformatics<br>Course<br>Mercy College,<br>Palakkad, Kerala | Rajan Thomas |  |
| 86. | <b>SEM - 3 , YEAR - 2<br/>MOLECULAR BIOLOGY</b> | BI 132 | <b>DNA RECOMBINATION,<br/>REPLICA PLATING AND<br/>AMES TEST</b> | <b>DNA RECOMBINATION,<br/>REPLICA PLATING AND<br/>AMES TEST</b> | 28 | ACLT / 50<br>XD -60 | Dr.Jayasree.S<br>Associate Professor<br>and Head<br>Department of<br>Zoology<br>& coordinator<br>Bioinformatics<br>Course<br>Mercy College,<br>Palakkad, Kerala | Rajan Thomas |  |

**SEM - 3 , YEAR - 2  
PAPER Name - GENETICS**

| SI.No | YEAR/ PAPER | e-Content<br>Module | E-CONTENT LECTURE<br>TITLE | VIDEO PROGRAMME<br>TITLE | TOPIC<br>NO. | Tape / PD<br>No. | Subject Expert | Producer | Remarks<br>(if any) |
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| 87. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> | BI- 068 | Extensions To Mendelein Genetics – Explore Laws Of Inheritance                             | Extensions To Mendelein Genetics – Explore Laws Of Inheritance                             | 1 | ACLT / 50<br>XD – 38 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 88. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> | BI- 069 | Extensions To Mendelian Genetics – Gene Interactions And Modified Dihybrid Ratios          | Extensions To Mendelian Genetics – Gene Interactions And Modified Dihybrid Ratios          | 2 | ACLT / 50<br>XD – 38 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 89. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> | BI- 071 | Extensions To Mendelian Inheritance – Gene Interactions And Other Modified Dihybrid Ratios | Extensions To Mendelian Inheritance – Gene Interactions And Other Modified Dihybrid Ratios | 3 | ACLT / 50<br>XD – 38 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |

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| 90. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> |         | Extensions To Mendelian Genetics – Modified Dihybrid Phenotypic Ratios Due To Gene Interaction | Extensions To Mendelian Genetics – Modified Dihybrid Phenotypic Ratios Due To Gene Interaction | 4 | ACLT / 50 XD –48  | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated Biotechnology Center<br><br>College of Agriculture,<br>Vellayani.<br>Thiruvananthapuram , Kerala | Rajan Thomas |  |
| 91. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> | BI- 072 | Extensions To Mendelian Genetics – Multiple Gene Inheritance                                   | Extensions To Mendelian Genetics – Multiple Gene Inheritance                                   | 5 | ACLT / 50 XD – 38 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated Biotechnology Center<br><br>College of Agriculture,<br>Vellayani.<br>Thiruvananthapuram , Kerala | Rajan Thomas |  |
| 92. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> | BI- 049 | Extensions To Mendelian Genetics - Quantitative Inheritance                                    | Extensions To Mendelian Genetics - Quantitative Inheritance                                    | 6 | ACLT / 50 XD – 38 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated Biotechnology Center<br><br>College of Agriculture,<br>Vellayani.<br>Thiruvananthapuram , Kerala | Rajan Thomas |  |
| 93. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> | BI- 074 | The Chromosomal Theory Of Inheritance: Theory Of   | The Chromosomal Theory Of Inheritance: Theory Of   | 7 | ACLT 23XD - 1633  | Dr. Savitha K Koilery<br>Guest Lecturer,  | Rajan Thomas |  |

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|     |                                    |         | Linkage And Crossing Over  | Linkage And Crossing Over  |    |                    | Integrated Biotechnology Center<br>College of Agriculture, Vellayani. Thiruvananthapuram, Kerala  |              |  |
| 94. | <b>SEM – 3 , YEAR – 2 GENETICS</b> |         | Introduction To Linkage Mapping  | Introduction To Linkage Mapping  | 8  | ACLT / 50 XD –44   | Dr. Savitha K Koilery<br>Guest Lecturer, Integrated Biotechnology Center<br>College of Agriculture, Vellayani. Thiruvananthapuram, Kerala | Rajan Thomas |  |
| 95. | <b>SEM – 3 , YEAR – 2 GENETICS</b> | BI- 073 | The Chromosomal Theory Of Inheritance: Genetic Mechanisms Of Sex Determination | The Chromosomal Theory Of Inheritance: Genetic Mechanisms Of Sex Determination | 9  | ACLT 50XD - 44     | Dr. Savitha K Koilery<br>Guest Lecturer, Integrated Biotechnology Center<br>College of Agriculture, Vellayani. Thiruvananthapuram, Kerala | Rajan Thomas |  |
| 96. | <b>SEM – 3 , YEAR – 2 GENETICS</b> |         | Biological Basis Of Heredity: Sex Linked Genes And Their Inheritance Part – 1  | Biological Basis Of Heredity: Sex Linked Genes And Their Inheritance Part – 1  | 10 | ACLT / 23 XD –1632 | Dr. Savitha K Koilery<br>Guest Lecturer, Integrated Biotechnology   | Rajan Thomas |  |

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| 97. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> |  | Biological Basis Of Heredity:<br>Sex Linked Genes And Their<br>Inheritance - Part – 2  | Biological Basis Of<br>Heredity: Sex Linked<br>Genes And Their<br>Inheritance - Part – 2 | 11 | ACLT / 23<br>XD –1632 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 98. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> |  | Organellar Genetics -<br>Cytoplasmic Or<br>Extrachromosomal<br>Inheritance<br>Part - 1 | Organellar Genetics -<br>Cytoplasmic Or<br>Extrachromosomal<br>Inheritance<br>Part - 1   | 12 | ACLT / 23<br>XD –1633 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 99. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> |  | Organellar Genetics -<br>Cytoplasmic Or<br>Extrachromosomal<br>Inheritance<br>Part – 2 | Organellar Genetics -<br>Cytoplasmic Or<br>Extrachromosomal<br>Inheritance<br>Part – 2   | 13 | ACLT / 23<br>XD –1632 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of   | Rajan Thomas |  |

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|      |  |  |  |  |    |                       | Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala  |              |  |
| 100. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> |  | Population Genetics And The<br><b>Hardy-Weinberg</b> Principle<br>Part – 1 | Population Genetics And<br>The Hardy-Weinberg<br>Principle<br>Part – 1 | 14 | ACLT / 50<br>XD –44   | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 101. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> |  | Population Genetics And The<br>Hardy-Weinberg Principle<br>Part – 2        | Population Genetics And<br>The Hardy-Weinberg<br>Principle<br>Part – 2 | 15 | ACLT / 50<br>XD –44   | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 102. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> |  | Genetic Recombination In<br>Bacteria                                       | Genetic Recombination In<br>Bacteria                                   | 16 | ACLT / 23<br>XD –1651 | Dr. Savitha K Koilery<br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.                                   | Rajan Thomas |  |



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|      |  |        |  |  |    |                     | Thiruvananthapuram<br>, Kerala  |              |  |
| 103. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> |        | Microbial Culture Techniques                         | Microbial Culture<br>Techniques                      | 17 | ACLT / 50<br>XD –48 | Dr. Savitha K Koilery<br><br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 104. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> |        | The Analysis Of Mutations In<br>Biochemical Pathways | The Analysis Of Mutations<br>In Biochemical Pathways | 18 | ACLT / 50<br>XD –52 | Dr. Savitha K Koilery<br><br>Guest Lecturer,<br>Integrated<br>Biotechnology<br>Center<br><br>College of<br>Agriculture,<br>Vellayani.<br>Thiruvananthapuram<br>, Kerala | Rajan Thomas |  |
| 105. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> | BI 142 | Types of chromosome<br>mutations                     | Types of chromosome<br>mutations                     | 19 | ACLT/50XD-<br>64    | Anju Viswan K<br><br>Research Scholar<br><br>Department of Zoology<br><br>University of Calicut   | Kiran S      |  |
| 106. | <b>SEM – 3 , YEAR – 2<br/>GENETICS</b> | BI 143 | Gene Mutation  | Gene Mutation  | 20 | ACLT/50XD-<br>64    | Anju Viswan K<br><br>Research Scholar<br><br>Department of Zoology  | Kiran S      |  |

**SEM - 4 , YEAR – 2****Paper Name : STRUCTURAL BIOINFORMATICS - I**

| Sl.No | YEAR/ PAPER               | e-Content Module No. | E-CONTENT LECTURE TITLE                           | VIDEO PROGRAMME TITLE (FOR VYAS CHANNEL)          | TOPIC NO. | Tape / PD No.  | Subject Expert  | Producer         | Remarks (if any) |
|-------|---------------------------|----------------------|---|---|-----------|----------------|---|------------------|------------------|
| 107.  | Structural bioinformatics | BI-051               | Principle of protein structure– Primary Structure | Principle of protein structure– Primary Structure | 1         | ACLT/50XD      | K V Dileep<br>Post Doctoral Fellow,School Of Chemistry,Indian Institute of Science Education & Research | Sajith Kumar K S |                  |
| 108.  | Structural bioinformatics | BI-053               | Secondary structure                               | Secondary structure                               | 2         | ACLT/50XD - 47 | K V Dileep<br>Post Doctoral Fellow,School Of Chemistry,Indian Institute of Science Education & Research | Sajith Kumar K S |                  |
| 109.  | Structural bioinformatics | BI-054               | Tertiary and quaternary structure                 | Tertiary and quaternary structure                 | 3         | ACLT 50XD - 30 | K V Dileep<br>Post Doctoral Fellow,School Of Chemistry,Indian Institute of Science Education & Research | Sajith Kumar K S |                  |
| 110.  | Structural bioinformatics | BI-047               | Ramachandran plot                                 | Ramachandran plot                                 | 4         | ACLT 50XD - 30 | K V Dileep<br>Post Doctoral Fellow,School Of Chemistry,Indian Institute of Science Education & Research | Sajith Kumar K S |                  |
| 111.  | Structural bioinformatics |                      |   |   | 5         | ACLT/23XD -137 | K V Dileep  | Sajith Kumar K S | To be Sent       |

|             |                           |        |   |   |   |                 |  |                  |  |
|-------------|---------------------------|--------|---|---|---|-----------------|--|------------------|--|
|             |                           | BI-19  | Overview of Protein-Protein Interaction Analysis  | Overview of Protein-Protein Interaction Analysis  | 6 |                 | Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science Education & Research            |                  | (Action to be taken by the Producer )            |
| <b>112.</b> | Structural bioinformatics |        | Overview of DNA-Protein Interaction               | Overview of DNA-Protein Interaction               | 7 | ACLT/23XD -137  | K V Dileep Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science Education & Research | Sajith Kumar K S | To be Sent (Action to be taken by the Producer ) |
| <b>113.</b> | Structural bioinformatics | BI-048 | Types of interactions of DNA with small molecules | Types of interactions of DNA with small molecules | 8 | ACLT 50XD - 30  | K V Dileep Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science Education & Research | Sajith Kumar K S |  |
| <b>114.</b> | Structural bioinformatics |        | Nuclie Acid                                       | Nuclie Acid                                       | 9 | ACLT 23 XD - 22 | K V Dileep Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science Education & Research | Sajith Kumar K S |  |

**SEM – 4 , YEAR – 2**

**PAPER Name – STRUCTURAL BIOINFORMATICS -II**

| SI No | Year / semester Paper Name              | E-CONT MODULE NO: | E-CONTENT LECTURE TITLE      | Video Programme Title (For Vyas Channel) | TOPIC NO. | Tape/PD No    | SUBJECT EXPERT                        | PRODUCER         | Remarks   |
|-------|---|-------------------|------------------------------|--|-----------|---------------|---------------------------------------|------------------|-----------|
| 115.  | <b>SEM – 4 , YEAR – 2</b><br>Structural | BI 42             | Protein Structure Prediction | Protein Structure                        | 1         | ACLT/50 XD-60 | Dr. Prasad M Alex Associate Professor | Sajeed Naduthody | Completed |

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|------|---|--------|--|--|---|------------------|--|------------------|---|
|      | Bioinformatics -II  |        |  | Prediction                               |   |                  | Department of Chemistry<br>Marthoma College<br>Chungathara,<br>Malappuram ,<br>Kerala              |                  | Video<br>programm<br>e sent                   |
| 116. | <b>SEM – 4 , YEAR – 2</b><br>Structural<br>Bioinformatics -II | BI 156 | Introduction to X-ray<br>Crystallography | Introduction to X-ray<br>Crystallography | 2 | ACLT/50<br>XD-64 | Anusha TS<br>Research Scholar<br>Department of<br>Biotechnology<br>University of Calicut<br>Kerala | Sajeed Naduthody | Completed                                     |
| 117. | <b>SEM – 4 , YEAR – 2</b><br>Structural<br>Bioinformatics -II | BI 158 | NMR Spectroscopy                         | NMR Spectroscopy                         | 3 | ACLT/50<br>XD-64 | Anusha TS<br>Research Scholar<br>Department of<br>Biotechnology<br>University of Calicut<br>Kerala | Sajeed Naduthody | Completed                                     |
| 118. | <b>SEM – 4 , YEAR – 2</b><br>Structural<br>Bioinformatics -II | BI 159 | Structure Visualisation Tools            | Structure Visualisation<br>Tools         | 4 | ACLT/50<br>XD-62 | Anusha TS<br>Research Scholar<br>Department of<br>Biotechnology<br>University of Calicut<br>Kerala | Sajeed Naduthody | Completed<br>.<br>Video<br>programm<br>e sent |

**SEM – 4 , YEAR – 2**

**OPEN COURSE PAPER Name - APPLICATION OF PERL TO BIOINFORMATICS**

| Sl.No | YEAR/ PAPER   | e-Content Module No. | E-CONTENT LECTURE TITLE              | VIDEO PROGRAMME TITLE (FOR VYAS CHANNEL) | TOPIC NO. | Tape / PD No.       | Subject Expert   | Producer     | Remarks (if any) |
|-------|---|----------------------|--------------------------------------|--|-----------|---------------------|--|--------------|------------------|
| 119.  | SEM – 4 , YEAR – 2<br>APPLICATION OF PERL TO BIOINFORMATICS | BI- 040              | SUBROUTINES AND BUGS - PART-1        | SUBROUTINES AND BUGS - PART-1            | 1         | ACLT / 23 XD – 1367 | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |                  |
| 120.  | SEM – 4 , YEAR – 2<br>APPLICATION OF PERL TO BIOINFORMATICS | BI- 044              | SUBROUTINES AND BUGS – PART-2        | SUBROUTINES AND BUGS – PART-2            | 2         | ACLT / 23 XD – 1367 | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |                  |
| 121.  | SEM – 4 , YEAR – 2<br>APPLICATION OF PERL TO BIOINFORMATICS | BI- 057              | MUTATIONS AND RANDOMIZATION - PART-1 | MUTATIONS AND RANDOMIZATION - PART- 1    | 3         | ACLT / 23 XD – 1374 | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |                  |
| 122.  | SEM – 4 , YEAR – 2<br>APPLICATION OF PERL TO BIOINFORMATICS | BI- 044              | MUTATIONS AND RANDOMIZATION - PART-2 | MUTATIONS AND RANDOMIZATION - PART- 2    | 4         | ACLT / 23 XD – 1370 | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |                  |
| 123.  | SEM – 4 , YEAR – 2<br>APPLICATION OF PERL TO BIOINFORMATICS | BI- 043              | THE GENETIC CODE – PART 1            | THE GENETIC CODE – PART 1                | 5         | ACLT / 50 XD – 12   | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |                  |

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| 124. | <b>SEM – 4 , YEAR – 2<br/>APPLICATION OF<br/>PERL TO<br/>BIOINFORMATICS</b> |  | THE GENETIC CODE –<br>PART 2                | THE GENETIC CODE –<br>PART 2                   | 6  | ACLT / 50<br>XD – 12 | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |  |
| 125. | <b>SEM – 4 , YEAR – 2<br/>APPLICATION OF<br/>PERL TO<br/>BIOINFORMATICS</b> |  | BLAST                                       | BLAST  | 10 | ACLT / 50<br>XD –59  | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |  |
| 126. | <b>SEM – 4 , YEAR – 2<br/>APPLICATION OF<br/>PERL TO<br/>BIOINFORMATICS</b> |  | GENBANK                                     | GENBANK  | 8  | ACLT / 50<br>XD –59  | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |  |
| 127. | <b>SEM – 4 , YEAR – 2<br/>APPLICATION OF<br/>PERL TO<br/>BIOINFORMATICS</b> |  | PROTEIN DATA BANK                           | PROTEIN DATA BANK                              | 9  | ACLT / 50<br>XD –58  | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |  |
| 128. | <b>SEM – 4 , YEAR – 2<br/>APPLICATION OF<br/>PERL TO<br/>BIOINFORMATICS</b> |  | RESTRICTION MAPS AND<br>REGULAR EXPRESSIONS | RESTRICTION MAPS<br>AND REGULAR<br>EXPRESSIONS | 7  | ACLT / 50<br>XD –58  | Reshma.P.K<br>Asst. Professor<br>Department of<br>Computer Science<br>Mahatma Gandhi<br>College, Iritty,<br>Kannur, Kerala | Rajan Thomas |  |

SEM – 5 , YEAR – 3  
Paper Name : SEQUENCE ANALYSIS

| Sl.No | YEAR/ PAPER                             | e-Content Module No. | E-CONTENT LECTURE TITLE                            | VIDEO PROGRAMME TITLE (FOR VYAS CHANNEL)           | TOPIC NO. | Tape / PD No. | Subject Expert   | Producer         | Remarks (if any)   |
|-------|---|----------------------|--|--|-----------|---------------|--|------------------|--|
| 129   | SEM – 5 , YEAR – 3<br>SEQUENCE ANALYSIS |                      | FILE FORMATS FOR BIO-MOLECULAR SEQUENCES           | FILE FORMATS FOR BIO-MOLECULAR SEQUENCES           |           |               | Dr.Ganesh K Prasanth<br>P.I DST Research Project<br>Department of Biochemistry and molecular Biology<br>Central University of Kerala | Sajith Kumar K S | All Topic No.s & Tape/Pd no.s to be added<br><br>(Action to be taken by the Producer ) |
| 130   | SEM – 5 , YEAR – 3<br>SEQUENCE ANALYSIS |                      | BASIC CONCEPTS OF SEQUENCE SIMILARITY AND IDENTITY | BASIC CONCEPTS OF SEQUENCE SIMILARITY AND IDENTITY |           |               | Dr.Ganesh K Prasanth<br>P.I DST Research Project<br>Department of Biochemistry and molecular Biology<br>Central University of Kerala | Sajith Kumar K S | To be Sent<br><br>(Action to be taken by the Producer )                                |
| 131   | SEM – 5 , YEAR – 3<br>SEQUENCE ANALYSIS |                      | Scoring Matrices:                                  | Scoring Matrices:                                  |           |               | Dr.Ganesh K Prasanth<br>P.I DST Research Project<br>Department of Biochemistry and   | Sajith Kumar K S |  |

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|     |   |  |                                 |                                 |  |  | molecular Biology<br>Central University<br>of Kerala   |                  |  |
| 132 | SEM – 5 , YEAR – 3<br>SEQUENCE ANALYSIS |  | Taxonomy and Phylogeny          | Taxonomy and<br>Phylogeny       |  |  | Dr.Ganesh K Pras-<br>anth<br><br>P.I DST Research<br>Project<br><br>Department of Bio<br>chemistry and<br>molecular Biology<br><br>Central University<br>of Kerala | Sajith Kumar K S |  |
| 133 | SEM – 5 , YEAR – 3<br>SEQUENCE ANALYSIS |  | Pairwise Sequence<br>Alignments | Pairwise Sequence<br>Alignments |  |  | Dr.Ganesh K Pras-<br>anth<br><br>P.I DST Research<br>Project<br><br>Department of Bio<br>chemistry and<br>molecular Biology<br><br>Central University<br>of Kerala | Sajith Kumar K S |  |
| 134 | SEM – 5 , YEAR – 3<br>SEQUENCE ANALYSIS |  | Multiple Sequence<br>Alignments | Multiple Sequence<br>Alignments |  |  | Dr.Ganesh K Pras-<br>anth<br><br>P.I DST Research<br>Project<br><br>Department of Bio<br>chemistry and<br>molecular Biology  | Sajith Kumar K S |  |



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|     |   |  |   |  |  |  | <b>Central University<br/>of Kerala</b> |                  |  |
| 135 | SEM – 5 , YEAR – 3<br>SEQUENCE ANALYSIS |  | Module V- Sequence<br>Patterns and Profiles-<br>PART 1  | Module V- Sequence<br>Patterns and Profiles-<br>PART 1   |  |  | Praseetha S                             | Sajith Kumar K S |  |
| 136 | SEM – 5 , YEAR – 3<br>SEQUENCE ANALYSIS |  | Module V- Sequence<br>Patterns and Profiles-<br>PART 11 | Module V- Sequence<br>Patterns and Profiles-<br>PART 1 1 |  |  | Praseetha S                             | Sajith Kumar K S |  |

**SEM - 5 , YEAR - 3  
Paper Name : GENOMICS AND PROTEOMICS**

| Sl. No | YEAR/ PAPER  | e-Content Module No.                          | E-CONTENT<br>LECTURE TITLE           | VIDEO PROGRAMME<br>TITLE<br>(FOR VYAS<br>CHANNEL) | TOPIC<br>NO. | Tape /<br>PD No.       | Subject Expert   | Producer            | Remarks<br>(if any)  |
|--------|--|---|--------------------------------------|---|--------------|------------------------|--|---------------------|--|
| 137    | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 137<br>ECLT/BIOINF/P1/01/D/ECON0000137/137 | Introduction To<br>Genomics: Genomes | Introduction To<br>Genomics: Genomes              |              | ACLT /<br>50 XD<br>-71 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S | All Topic<br>No.s to<br>be added<br><br>(Action<br>to be<br>taken by<br>the<br>Producer<br>) |

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| 138 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 138<br>ECLT/BIOINF/P1/01/D/ECON0000138/138 | Biological Techniques<br>in Genomics          | Biological<br>Techniques in<br>Genomics          |  | ACLT /<br>50 XD<br>-65 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 139 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 139<br>ECLT/BIOINF/P1/01/D/ECON0000139/139 | Biological techniques<br>in Genomics – Part 2 | Biological<br>techniques in<br>Genomics – Part 2 |  | ACLT /<br>50 XD<br>-62 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 140 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 140<br>ECLT/BIOINF/P1/01/D/ECON0000140/140 | Mapping Populations                           | Mapping Populations                              |  | ACLT /<br>50 XD<br>-62 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 141 | SEM - 5 ,<br>YEAR - 3                                  | BI 141<br>ECLT/BIOINF/P1/01/D/ECON0000141/141 | Genetic markers                               | Genetic markers                                  |  | ACLT /<br>50 XD        | Dr. Savitha K Koilery<br>Head, Academic  | Sajith Kumar<br>K S |  |

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|     | GENOMICS<br>AND<br>PROTEOMICS                                     |   |  |  |  | -65                    | Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012  |                     |  |
| 142 | <b>SEM - 5 ,<br/>YEAR - 3<br/>GENOMICS<br/>AND<br/>PROTEOMICS</b> | BI 144<br>ECLT/BIOINF/P1/01/D/ECON0000144/144 | <b>Genetic and Physical<br/>mapping, Long Range<br/>and Global Physical<br/>Mapping, Integration<br/>of Genetic and<br/>Physical Maps<br/>Part 1</b> | <b>Genetic and Physical<br/>mapping, Long<br/>Range and Global<br/>Physical Mapping,<br/>Integration of<br/>Genetic and Physical<br/>Maps<br/>Part 1</b> |  | ACLT /<br>50 XD<br>-65 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 143 | <b>SEM - 5 ,<br/>YEAR - 3<br/>GENOMICS<br/>AND<br/>PROTEOMICS</b> | BI 145<br>ECLT/BIOINF/P1/01/D/ECON0000145/145 | <b>Genetic and Physical<br/>mapping, Long Range<br/>and Global Physical<br/>Mapping, Integration<br/>of Genetic and<br/>Physical Maps Part 2</b>     | <b>Genetic and Physical<br/>mapping, Long<br/>Range and Global<br/>Physical Mapping,<br/>Integration of<br/>Genetic and Physical<br/>Maps Part 2</b>     |  | ACLT /<br>50 XD<br>-65 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 144 | <b>SEM - 5 ,<br/>YEAR - 3<br/>GENOMICS</b>                        | BI 146<br>ECLT/BIOINF/P1/01/D/ECON0000146/146 | <b>Identification of DNA<br/>polymorphism, the<br/>importance of SNPs</b>  | <b>Identification of DNA<br/>polymorphism, the<br/>importance of SNPs</b>  |  | ACLT /<br>50 XD<br>-64 | Dr. Savitha K Koilery<br>Head, Academic<br>Division  | Sajith Kumar<br>K S |  |

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|     | AND<br>PROTEOMICS                                      |   | in DNA typing and<br>pharmacogenomics  | in DNA typing and<br>pharmacogenomics  |  |                        | Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012  |                     |  |
| 145 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 147<br>ECLT/BIOINF/P1/01/D/ECON0000147/147 | Cytogenetics,<br>Chromosome<br>painting,<br>Fluorescent <i>in<br/>situ</i> hybridization<br>(FISH), micro-<br>dissection and flow<br>sorting | Cytogenetics,<br>Chromosome<br>painting,<br>Fluorescent <i>in<br/>situ</i> hybridization<br>(FISH), micro-<br>dissection and flow<br>sorting |  | ACLT /<br>50 XD<br>-64 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 146 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 148<br>ECLT/BIOINF/P1/01/D/ECON0000148/148 | Gene isolation   | Gene isolation   |  | ACLT /<br>50 XD<br>-65 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 147 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND               | BI 150<br>ECLT/BIOINF/P1/01/D/ECON0000150/150 | Transient expression<br>of Transgenes and<br>DGGE in mutation<br>detection   | Transient expression<br>of Transgenes and<br>DGGE in mutation<br>detection   |  | ACLT /<br>50 XD<br>-71 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research   | Sajith Kumar<br>K S |  |

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|     | PROTEOMICS   |   |   |   |  |                        | Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012   |                     |  |
| 148 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 151<br>ECLT/BIOINF/P1/01/D/ECON0000151/151 | <b>DNA Sequencing:<br/>Sequencing<br/>Strategies, Templates,<br/>Chemistries,<br/>Labelling and<br/>Detection, Future<br/>Methods</b> | <b>DNA Sequencing:<br/>Sequencing<br/>Strategies,<br/>Templates,<br/>Chemistries,<br/>Labelling and<br/>Detection, Future<br/>Methods</b> |  | ACLT /<br>50 XD<br>-65 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 149 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 149<br>ECLT/BIOINF/P1/01/D/ECON0000149/149 | <b>Microarray</b>   | <b>Microarray</b>   |  | ACLT /<br>50 XD<br>-71 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 150 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND               | BI 153<br>ECLT/BIOINF/P1/01/D/ECON0000153/153 | <b>Proteomics: 2-D Gels<br/>ES and MALDI-TOF<br/>MS Antibody,<br/>Applications, Future<br/>Prospects</b>                              | <b>Proteomics: 2-D Gels<br/>ES and MALDI-TOF<br/>MS Antibody,<br/>Applications, Future<br/>Prospects</b>                                  |  | ACLT /<br>50 XD<br>-71 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center   | Sajith Kumar<br>K S |  |

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|-----|--|---|--|--|--|------------------------|--|---------------------|--|
|     | PROTEOMICS   |   |  |  |  |                        | Center for Molecular Biology and Applied Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012   |                     |  |
| 151 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 152<br>ECLT/BIOINF/P1/01/D/ECON0000152/152 | Gene Prediction                                      | Gene Prediction                                      |  | ACLT /<br>50 XD<br>-71 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |
| 152 | SEM - 5 ,<br>YEAR - 3<br>GENOMICS<br>AND<br>PROTEOMICS | BI 161<br>ECLT/BIOINF/P1/01/D/ECON0000161/161 | Family studies and<br>complex traits genetic<br>maps | Family studies and<br>complex traits<br>genetic maps |  | ACLT /<br>50 XD<br>-71 | Dr. Savitha K Koilery<br>Head, Academic<br>Division<br>Biogenix Research<br>Center<br>Center for Molecular<br>Biology and Applied<br>Science<br>BRMAS, KRRRA 31,<br>Keshavadeva Road,<br>Poojappura,<br>Thiruvananthapuram<br>,<br>Kerala 695012 | Sajith Kumar<br>K S |  |

**SEM – 6 , YEAR – 3**

**Paper Name : BIOINFORMATICS IN DRUG DESIGN**

| Sl.No | YEAR/ PAPER   | e-Content Module No. | E-CONTENT LECTURE TITLE  | VIDEO PROGRAMME TITLE (FOR VYAS CHANNEL)  | TOPIC NO. | Tape / PD No.     | Subject Expert  | Producer         | Remarks (if any)   |
|-------|---|----------------------|--|---|-----------|-------------------|---|------------------|--|
| 153   | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 084               | Definition of drugs and its<br>Advances                                      | Definition of drugs and its<br>Advances   |           | ACLT 50XD<br>- 22 | K V Dileep<br>Post Doctoral<br>Fellow,School Of<br>Chemistry,Indian<br>Institute of Science | Sajith Kumar K S | All Topic<br>No.s to<br>be added<br><br>(Action<br>to be<br>taken by<br>the<br>Producer<br>) |
| 154   | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 086               | Principles of Drug Therapy<br>Distrubution Metabolism &<br>Excretion of Drug | Principles of Drug<br>Therapy Distrubution<br>Metabolism & Excretion of<br>Drug |           | ACLT 50XD<br>- 22 | K V Dileep<br>Post Doctoral<br>Fellow,School Of<br>Chemistry,Indian<br>Institute of Science | Sajith Kumar K S |  |
| 155   | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 085               | Principles of Drug Therapy<br>Absorption of Drugs                            | Principles of Drug<br>Therapy Absorption of<br>Drugs                            |           | ACLT 50XD<br>- 30 | K V Dileep<br>Post Doctoral<br>Fellow,School Of<br>Chemistry,Indian<br>Institute of Science | Sajith Kumar K S |  |
| 156   | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 088               | Mechanism of Drug Action<br>-Drug Receptor Interactions                      | Mechanism of Drug Action<br>-Drug Receptor<br>Interactions                      |           | ACLT 50XD<br>- 47 | K V Dileep<br>Post Doctoral<br>Fellow,School Of<br>Chemistry,Indian<br>Institute of Science | Sajith Kumar K S |  |
| 157   | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 089               | Pharmacophore<br>Identification and Novel<br>Drug Design                     | Pharmacophore<br>Identification and Novel<br>Drug Design                        |           |                   | K V Dileep<br>Post Doctoral<br>Fellow,School Of<br>Chemistry,Indian<br>Institute of Science | Sajith Kumar K S |  |
| 158   | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 090               | Structure Based Drug<br>Design   | Structure Based Drug<br>Design  |           | ACLT 50XD<br>- 47 | K V Dileep<br>Post Doctoral<br>Fellow,School Of   | Sajith Kumar K S |  |

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|     |   |        |  |  |  |                | Chemistry, Indian Institute of Science   |                  |  |
| 159 | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design |        | <i>Drug targets: Receptors, enzymes, structural proteins and nucleic acids as the drug targets</i> | <i>Drug targets: Receptors, enzymes, structural proteins and nucleic acids as the drug targets</i> |  | ACLT 50XD - 47 | K V Dileep<br>Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science | Sajith Kumar K S |  |
| 160 | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design |        | Drug Targets: An Introduction  | Drug Targets: An Introduction  |  | ACLT 50XD - 47 | K V Dileep<br>Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science | Sajith Kumar K S |  |
| 161 | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 094 | Design of ligands for known macromolecular target sites  | Design of ligands for known macromolecular target sites  |  |                | K V Dileep<br>Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science | Sajith Kumar K S | To be Sent (Action to be taken by the Producer ) |
| 162 | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 093 | Classical SAR/QSAR Studies and their Implications to the 3D Modelling                              | Classical SAR/QSAR Studies and their Implications to the 3D Modelling                              |  | ACLT 50XD - 54 | K V Dileep<br>Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science | Sajith Kumar K S |  |
| 163 | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 095 | Enzyme Inhibition Strategies   | Enzyme Inhibition Strategies   |  | ACLT 50XD - 54 | K V Dileep<br>Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science | Sajith Kumar K S |  |
| 164 | SEM – 6 , YEAR – 3<br>Bioinformatics in Drug design | BI 092 | High throughput Combinatorial Approaches   | High throughput Combinatorial Approaches   |  | ACLT 50XD - 54 | K V Dileep<br>Post Doctoral Fellow, School Of Chemistry, Indian Institute of Science | Sajith Kumar K S |  |