

**Lesson Plan Format**  
**18 weeks (From January 2018 to April 2018)**

Name of Assistant /Associate Professor :.....Suman Kumar.....  
 Class and Section :.....B.A./B.Sc-II (I<sup>st</sup> & II<sup>nd</sup> Sem.).....  
 Subject :.....Mathematics.....  
 Paper - Sequence and Series

|                              |                                                                  |
|------------------------------|------------------------------------------------------------------|
| <b>Week 1(January 1-6)</b>   |                                                                  |
| <b>Chapter 1</b>             |                                                                  |
| 01/01/2018                   | <u>Introduction to topology of Real Numbers.</u>                 |
| 02/01/2018                   | <u>Supremum and Infimum of a set, open and closed intervals.</u> |
| 03/01/2018                   | <u>Ex-1.1</u>                                                    |
| 04/01/2018                   | <u>Ex-1.1</u>                                                    |
| 05/01/2018                   | <u>Nbd of a point, Ex-1.2.</u>                                   |
| 06/01/2017                   | <u>Ex-1.2</u>                                                    |
| <b>Week 2(January 8-13)</b>  |                                                                  |
| <b>Chapter</b>               |                                                                  |
| 08/01/2018                   | <u>Limit pt of a set, derived set of a set.</u>                  |
| 09/01/2018                   | <u>Ex-1.3</u>                                                    |
| 10/01/2018                   | <u>Ex-1.3</u>                                                    |
| 11/01/2018                   | <u>Compact set, Ex-1.4.</u>                                      |
| 12/01/2018                   | <u>Introduction to Sequence, bddness of sequence</u>             |
| 13/01/2018                   | <u>Convergence of sequence.</u>                                  |
| <b>Week 3(January 15-20)</b> |                                                                  |
| <b>Chapter</b>               |                                                                  |
| 15/01/2018                   | <u>Ex-2.1</u>                                                    |
| 16/01/2018                   | <u>Ex-2.1</u>                                                    |
| 17/01/2018                   | <u>Squeeze Principle, Cauchy's 1st theorem limits</u>            |
| 18/01/2018                   | <u>Cauchy's 2nd theorem on limits, divergence.</u>               |
| 19/01/2018                   | <u>Ex-2.2</u>                                                    |
| 19/01/2018                   | <u>Ex-2.2</u>                                                    |
| 20/01/2018                   | <u>Monotonic Sequence, Convergence of seq.</u>                   |
| <b>Week 4(January 22-27)</b> |                                                                  |
| <b>Chapter</b>               |                                                                  |
| 22/01/2018                   | <u>Vasant Panchami</u>                                           |
| 23/01/2018                   | <u>Ex-2.3</u>                                                    |
| 24/01/2018                   | <u>Sis chhotu Ram Jayanti</u>                                    |
| 25/01/2018                   | <u>Ex-2.3</u>                                                    |
| 26/01/2018                   | <u>Republic Day.</u>                                             |

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|-----------------------------------|---------------------------------------------------------|
| 27/01/2018                        | EX-2.4                                                  |
| <b>Week 5 (January 29- Feb 3)</b> |                                                         |
| <b>Chapter</b>                    |                                                         |
| 29/01/2018                        | Problem Class                                           |
| 30/01/2018                        | Class Test.                                             |
| 31/01/2018                        | Assignment                                              |
| 01/02/2018                        | Introduction to Infinite Series. Convergence of Series. |
| 02/02/2018                        | Divergence of Series.                                   |
| 03/02/2018                        | EX-3.1                                                  |
| <b>Week 6 (Feb 5-10)</b>          |                                                         |
| <b>Chapter</b>                    |                                                         |
| 05/02/2018                        | Comparison Test EX-3.2                                  |
| 06/02/2018                        | EX-3.2                                                  |
| 07/02/2018                        | EX-3.2                                                  |
| 08/02/2018                        | Revision of Chap-3.                                     |
| 09/02/2018                        | Problem Class.                                          |
| 10/02/2018                        | Mahakshi Dayanand Saraswati Jayanti                     |
| <b>Week 7 (Feb 12-17)</b>         |                                                         |
| <b>Chapter</b>                    |                                                         |
| 12/02/2017                        | Class Test.                                             |
| 13/02/2017                        | Mahashivratri.                                          |
| 14/02/2017                        | Dr. Alembert's Ratio Test. EX-4.1                       |
| 15/02/2017                        | EX-4.1                                                  |
| 16/02/2017                        | EX-4.1                                                  |
| 17/02/2017                        | Cauchy's Root Test. EX-4.2                              |
| <b>Week 8 (Feb 19-24)</b>         |                                                         |
| <b>Chapter</b>                    |                                                         |
| 19/02/2018                        | EX-4.2                                                  |
| 20/02/2018                        | EX-4.3                                                  |
| 21/02/2018                        | EX-4.3                                                  |
| 22/02/2018                        | De Morgan's Test                                        |
| 23/02/2018                        | EX-4.4                                                  |
| 24/02/2018                        | Gauss Test                                              |
| <b>Week 9 (Feb 26-March 03)</b>   |                                                         |
| <b>Chapter</b>                    |                                                         |
| 26/02/2018                        | EX-4.5 , EX-4.6                                         |
| 27/02/2018                        | Revision.                                               |
| 28/02/2018                        | Holi                                                    |
| 01/03/2018                        | Holiday                                                 |

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| 02/03/2018                  | Holiday                                                   |
| 03/03/2018                  | Holiday                                                   |
| <b>Week 10(March 5-10)</b>  |                                                           |
| <b>Chapter</b>              |                                                           |
| 05/03/2018                  | Assignment                                                |
| 06/03/2018                  | Class Test.                                               |
| 07/03/2018                  | Cauchy's Condensation Test, Ex-4.7                        |
| 08/03/2018                  | Introduction to Alternating Series, Absolute Convergence. |
| 09/03/2018                  | Ex-5.1                                                    |
| 10/03/2018                  | Ex-5.1                                                    |
| <b>Week 11(March 12-17)</b> |                                                           |
| <b>Chapter</b>              |                                                           |
| 12/03/2018                  | Problem class.                                            |
| 13/03/2018                  | Assignment.                                               |
| 14/03/2018                  | Introduction to Arbitrary Series, Absolute Convergence.   |
| 15/03/2018                  | Abel's Test EX-6.1                                        |
| 16/03/2018                  | EX-6.1                                                    |
| 17/03/2018                  | EX-6.2                                                    |
| <b>Week 12(March 19-24)</b> |                                                           |
| <b>Chapter</b>              |                                                           |
| 19/03/2018                  | EX-6.2                                                    |
| 20/03/2018                  | Sum of Series obtained by different rearrangements.       |
| 21/03/2018                  | EX-6.3                                                    |
| 22/03/2018                  | EX-6.3                                                    |
| 23/03/2018                  | Shaheed Diwas.                                            |
| 24/03/2018                  | Class Test.                                               |
| <b>Week 13(March 26-31)</b> |                                                           |
| <b>Chapter</b>              |                                                           |
| 26/03/2018                  | Cauchy's Product of series.                               |
| 27/03/2018                  | Leibnitz's Test, EX-6.4                                   |
| 28/03/2018                  | EX-6.4                                                    |
| 29/03/2018                  | Mahavir Jayanti                                           |
| 30/03/2018                  | Assignment                                                |
| 31/03/2018                  | Revision.                                                 |
| <b>Week 14(April 02-07)</b> |                                                           |
| <b>Chapter</b>              |                                                           |
| 02/04/2018                  | Problem Class                                             |
| 03/04/2018                  | Class Test.                                               |
| 04/04/2018                  | Introduction to Infinite Products.                        |

