Saraswati Mahila Mahavidyalaya, Palwal

 **Lesson Plan**

**Name of the Assistant/Associate Professor:Ms. BIJENDRI**

**Class and Section: BSC IYR(II SEM)**

**Name of subject: Ordinary Differential Equation**

**Subject Lesson Plan : 18 weeks(from January 2018 to April 2018)**

**(Note: Prepare as per list of holidays declared by Haryana govt.)**

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| **WEEK 1** |
| **ASSIGNMENT:** |
| **WEEK 1,DAY1 ,DATE :01/01/2018(MONDAY)** |
| **Introduction of Differential Equation** |
| **WEEK 1 ,DAY 2 ,DATE :02/01/2018(TUESDAY)** |
| **Types of Differential Equation and Solution of Differential Equation** |
| **WEEK 1,DAY 3 ,DATE :03/01/2018(WEDNESDAY)** |
| **Geometrical meaning of Differential Equation** |
| **WEEK 1 ,DAY 4 ,DATE :04/01/2018(THURSDAY)** |
| **Solution of an Exact Differential Equation** |
| **WEEK 1,DAY 5 ,DATE :05/01/2018(FRIDAY)** |
|  **Holiday on account of Guru Govind Singh’s Birthday** |
| **WEEK 1 ,DAY 6 ,DATE :06/01/2018(SATURDAY)** |
| **Examples based on Exact Differential Equation** |
| **WEEK 2** |
| **ASSIGNMENT: Topic of Integrating Factor** |
| **WEEK 2,DAY1 ,DATE :08/01/2018(MONDAY)** |
| **Introduction of Integrating Factor** |
| **WEEK 2 ,DAY 2 ,DATE :09/01/2018(TUESDAY)** |
| **Integrating Factor by Inspection** |
| **WEEK 2,DAY 3 ,DATE :10/01/2018(WEDNESDAY)** |
| **Examples based on Integrating Factor Topic** |
| **WEEK 2 ,DAY 4 ,DATE :11/01/2018(THURSDAY)** |
| **Continue with the same Topic** |
| **WEEK 2,DAY 5 ,DATE :12/01/2018(FRIDAY)** |
|  **Board Test** |
| **WEEK 2 ,DAY 6 ,DATE :13/01/2018(SATURDAY)** |
|  **Problem Discussion** |
| **WEEK 3** |
| **ASSIGNMENT: Examples based on Integrating Factor** |
| **WEEK 3,DAY1 ,DATE :15/01/2018(MONDAY)** |
| **Rules for Finding the Integrating Factor** |
| **WEEK 3 ,DAY 2 ,DATE :16/01/2018(TUESDAY)** |
| **If the Equation M(x,y)dx + N(x,y)dy = 0 is not exact then find integrating factor by** **Type III** |
| **WEEK 3,DAY 3 ,DATE :17/01/2018(WEDNESDAY)** |
| **Continue with the topic** |
| **WEEK 3 ,DAY 4 ,DATE :18/01/2018(THURSDAY)** |
| **Board Test** |
| **WEEK 3,DAY 5 ,DATE :19/01/2018(FRIDAY)** |
| **Topic of Equation of the first order but not of first degree.** |
| **WEEK 3 ,DAY 6 ,DATE :20/01/2018(SATURDAY)****Continue with the topic** |
| **WEEK 4** |
| **ASSIGNMENT: Equation solvable for x**  |
| **WEEK 3,DAY1 ,DATE :22/01/2018(MONDAY)** |
|  **Holiday on account of Basant Panchmi.** |
| **WEEK 4 ,DAY 2 ,DATE :23/01/2018(TUESDAY)** |
| **Equations solvable for y** |
| **WEEK 4,DAY 3 ,DATE :24/01/2018(WEDNESDAY)** |
|  **Holiday on account of Sir Chotu Ram Jayanti.** |
| **WEEK 4 ,DAY 4 ,DATE :25/01/2018(THURSDAY)** |
| **Examples based on the topic of Equations solvable for y** |
| **WEEK 4,DAY 5 ,DATE :26/01/2018(FRIDAY)** |
|  **Holiday on account of Republic Day.** |
| **WEEK 4 ,DAY 6 ,DATE :27/01/2018(SATURDAY)** |
| **Equations solvable for x** |
| **WEEK 5** |
| **ASSIGNMENT: Topic of Equations solvable for y** |
| **WEEK 5,DAY1 ,DATE :29/01/2018(MONDAY)** |
| **Examples based on Equations solvable for x** |
| **WEEK 5 ,DAY 2 ,DATE :30/01/2018(TUESDAY)** |
| **Problem Discussion** |
| **WEEK 5,DAY 3 ,DATE :31/01/2018(WEDNESDAY)** |
|  **Holiday on account of Guru Ravi Dass Jayanti** |
| **WEEK 5 ,DAY 4 ,DATE :01/02/2018(THURSDAY)** |
| **Revision of the Integrating Factor** |
| **WEEK 5,DAY 5 ,DATE :02/02/2018(FRIDAY)** |
|  **Equations solvable for x when equation is given x = f(y,p)** |
| **WEEK 5 ,DAY 6 ,DATE :03/02/2018(SATURDAY)** **Examples based on the Topic** |
| **WEEK 6** |
| **ASSIGNMENT: Topic of Clairaut’s form** |
| **WEEK 6,DAY1 ,DATE :05/02/2018(MONDAY)** |
| **Equations reducible to Clairaut’s form** |
| **WEEK 6 ,DAY 2 ,DATE :06/02/2018(TUESDAY)** |
| **Equations based on clairaut’s form** |
| **WEEK 6,DAY 3 ,DATE :07/02/2018(WEDNESDAY)** |
| **Singular Solution Topic** |
| **WEEK 6 ,DAY 4 ,DATE :08/02/2018(THURSDAY)** |
| **p-discriminant and c-discriminant Topic** |
| **WEEK 6,DAY 5 ,DATE :09/02/2018(FRIDAY)** |
| **Examples based on the Topic** |
| **WEEK 6 ,DAY 6 ,DATE :10/02/2018(SATURDAY)** |
|  **Holiday on account of Maharshi Dayanand Saraswati Jayanti.** |
| **WEEK 7** |
| **ASSIGNMENT: Topic of Orthogonal Trajectory** |
| **WEEK 7,DAY1 ,DATE :12/02/2018(MONDAY)** |
| **Continue with p-discriminant and c-discriminant** |
| **WEEK 7 ,DAY 2 ,DATE :13/02/2018(TUESDAY)** |
| **Holiday on account of Maha Shivaratri.** |
| **WEEK 7,DAY 3 ,DATE :14/02/2018(WEDNESDAY)** |
| **Class Test on Lagfrange’s & clairnaut’s Equation** |
| **WEEK 7 ,DAY 4 ,DATE :15/02/2018(THURSDAY)** |
| **Topic of Orthogonal Trajectory** |
| **WEEK 7,DAY 5 ,DATE :16/02/2018(FRIDAY)** |
| **Examples based on Orthogonal Trajectories** |
| **WEEK 7 ,DAY 6 ,DATE :17/01/2018(SATURDAY)** |
| **Problem Discussion** |
| **WEEK 8** |
| **ASSIGNMENT: Topic of Auxilliary Equation** |
| **WEEK 8,DAY1 ,DATE :19/02/2018(MONDAY)** |
| **Linear Differential Equation** |
| **WEEK 8 ,DAY 2 ,DATE :20/02/2018(TUESDAY)** |
| **Auxillary Equations** |
| **WEEK 8,DAY 3 ,DATE :21/02/2018(WEDNESDAY)** |
| **Find complete solution of Differential Equation** |
| **WEEK 8 ,DAY 4 ,DATE :22/02/2018(THURSDAY)** |
| **Theorms based on the topic** |
| **WEEK 8,DAY 5 ,DATE :23/02/2018(FRIDAY)** |
|  **Continue with the topic** |
| **WEEK 8 ,DAY 6 ,DATE :24/02/2018(SATURDAY)** |
|  **Examples based on the complete solution of Differential Equation** |
| **WEEK 9** |
| **ASSIGNMENT: Topic of Complementary Equation** |
| **WEEK 9,DAY1 ,DATE :26/02/2018(MONDAY)** |
| **Topic of Complementary function and Particular Integral** |
| **WEEK 9 ,DAY 2 ,DATE :27/02/2018(TUESDAY)** |
| **Continue with the topic** |
| **WEEK 9,DAY 3 ,DATE :28/02/2018(WEDNESDAY)** |
|  **VACATION -II** |
| **WEEK 9 ,DAY 4 ,DATE :01/03/2018(THURSDAY)** |
|  **VACATION -II** |
| **WEEK 9,DAY 5 ,DATE :02/03/2018(FRIDAY)** |
|  **VACATION -II** |
| **WEEK 9 ,DAY 6 ,DATE :03/03/2018(SATURDAY)** |
|  **VACATION -II** |
| **WEEK 10** |
| **ASSIGNMENT: Tipic of complete solution** |
| **WEEK 10,DAY1 ,DATE :05/03/2018(MONDAY)** |
| **Class test on topic of complete solution and complementary function** |
| **WEEK 10,DAY 2 ,DATE :06/03/2018(TUESDAY)** |
| **Examples based on the topic** |
| **WEEK 10,DAY 3 ,DATE :07/03/2018(WEDNESDAY)** |
| **Problem linear Equations** |
| **WEEK 10,DAY 4 ,DATE :08/03/2018(THURSDAY)** |
| **Examples based on Homogenous Linear Equations** |
| **WEEK 10,DAY 5 ,DATE :09/03/2018(FRIDAY)** |
|  **Discussion about assignment** |
| **WEEK 10 ,DAY 6 ,DATE :10/03/2018(SATURDAY)** |
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| **WEEK 11** |
| **ASSIGNMENT: Topic of Homogeneous Linear Form** |
| **WEEK 11,DAY1 ,DATE :12/03/2018(MONDAY)** |
| **Equation reducible to Homogenous Linear form** |
| **WEEK 11,DAY 2 ,DATE :13/03/2018(TUESDAY)** |
| **Linear Differential Equation of second order.** |
| **WEEK 11,DAY 3 ,DATE :14/03/2018(WEDNESDAY)** |
| **Examples based on Linear Differential Equations** |
| **WEEK 11,DAY 4 ,DATE :15/03/2018(THURSDAY)** |
| **To solve a Linear differential Equation of second order by removing the first derivate and changing the Dependent Variable.** |
| **WEEK 11,DAY 5 ,DATE :16/03/2018(FRIDAY)** |
| **To solve a Linear Differential Equation of second order by changing the Independent Variable** |
| **WEEK 11 ,DAY 6 ,DATE :17/03/2018(SATURDAY)** |
| **Continue with the Topic** |
| **WEEK 12** |
| **ASSIGNMENT: Topic of Linear Differential Equation of second degree** |
| **WEEK 12,DAY1 ,DATE :19/03/2018(MONDAY)** |
| **Class Test on to solve a Linear Differential Equation of second order by changing the Independent Variable.** |
| **WEEK 12,DAY 2 ,DATE :20/03/2018(TUESDAY)** |
| **To solve a Linear Differntial Equation of second order by the method of variation of Parameters.** |
| **WEEK 12,DAY 3 ,DATE :21/03/2018(WEDNESDAY)** |
| **Continue with the Topic** |
| **WEEK 12,DAY 4 ,DATE :22/03/2018(THURSDAY)** |
| **To solve a Linear Differential Equation of second order by the Method of Undermined Co-efficients.** |
| **WEEK 12,DAY 5 ,DATE :23/03/2018(FRIDAY)** |
|  **Holiday on account of Shahidi diwas.** |
| **WEEK 12 ,DAY 6 ,DATE :24/03/2018(SATURDAY)** |
| **Problem Discussion** |
| **WEEK 13** |
| **ASSIGNMENT: Topic of Oridinary Simultaneous Diff. Equation** |
| **WEEK 13,DAY1 ,DATE :26/03/2018(MONDAY)** |
| **Ordinary Simultaneous Differential Equation** |
| **WEEK 13,DAY 2 ,DATE :27/03/2018(TUESDAY)** |
| **Examples based on ordinary simultaneous Differential Equation** |
| **WEEK 13,DAY 3 ,DATE :28/03/2018(WEDNESDAY)** |
| **Second Integral found with the help of first** |
| **WEEK 13,DAY 4 ,DATE :29/03/2018(THURSDAY)** |
|  **Holiday on account of Mahavir jayanti.** |
| **WEEK 13,DAY 5 ,DATE :30/03/2018(FRIDAY)** |
| **Total Differential Equations** |
| **WEEK 13 ,DAY 6 ,DATE :31/03/2018(SATURDAY)** |
|  **Methods of solving Total Differential Equations** |
| **WEEK 14** |
| **ASSIGNMENT: Topic of Exact Differential Equations** |
| **WEEK 14,DAY1 ,DATE :02/04/2018(MONDAY)** |
| **Regarding one variable as constant out of three variables in Pdx+Qdy+Rdz =0** |
| **WEEK 14,DAY 2 ,DATE :03/04/2018(TUESDAY)** |
| **Method for solving homogenous Equations** |
| **WEEK 14,DAY 3 ,DATE :04/04/2018(WEDNESDAY)** |
| **Continue with the Topic** |
| **WEEK 14,DAY 4 ,DATE :05/04/2018(THURSDAY)** |
| **Method of Auxiliary Equation** |
| **WEEK 14,DAY 5 ,DATE :06/04/2018(FRIDAY)** |
| **Board Test** |
| **WEEK 14 ,DAY 6 ,DATE :07/04/2018(SATURDAY)** |
| **Problem Discussion** |
| **WEEK 15** |
| **ASSIGNMENT:** |
| **WEEK 15,DAY1 ,DATE :09/04/2018(MONDAY)** |
| **Revision** |
| **WEEK 15,DAY 2 ,DATE :10/04/2018(TUESDAY)** |
| **Revision** |
| **WEEK 15,DAY 3 ,DATE :11/04/2018(WEDNESDAY)** |
| **Revision** |
| **WEEK 15,DAY 4 ,DATE :12/04/2018(THURSDAY)** |
| **Revision** |
| **WEEK 15,DAY 5 ,DATE :13/04/2018(FRIDAY)** |
|  **Revision** |
| **WEEK 15 ,DAY 6 ,DATE :14/04/2018(SATURDAY)** |
| **Holiday on account of Vaisakhi & Dr B.R. Ambedkar’s Jayanti.** |
| **WEEK 16** |
| **ASSIGNMENT:** |
| **WEEK 16,DAY1 ,DATE :16/04/2018(MONDAY)** |
| **Revision** |
| **WEEK 16,DAY 2 ,DATE :17/04/2018(TUESDAY)** |
| **Revision** |
| **WEEK 16,DAY 3 ,DATE :18/04/2018(WEDNESDAY)** |
| **Holiday on account of Maharshi Pasuram Jayanti** |
| **WEEK 16,DAY 4 ,DATE :19/04/2018(THURSDAY)** |
| **Revision** |
| **WEEK 16,DAY 5 ,DATE :20/04/2018(FRIDAY)** |
| **Revision** |
| **WEEK 16 ,DAY 6 ,DATE :21/04/2018(SATURDAY)** |
| **Revision** |
| **WEEK 17** |
| **ASSIGNMENT:** |
| **WEEK 17,DAY1 ,DATE :23/04/2018(MONDAY)** |
| **Revision** |
| **WEEK 17,DAY 2 ,DATE :24/04/2018(TUESDAY)** |
| **Revision** |
| **WEEK 17,DAY 3 ,DATE :25/04/2018(WEDNESDAY)** |
| **Revision** |
| **WEEK 17,DAY 4 ,DATE :26/04/2018(THURSDAY)** |
| **Revision** |
| **WEEK 17,DAY 5 ,DATE :27/04/2018(FRIDAY)** |
|  **Revision** |
| **WEEK 17 ,DAY 6 ,DATE :28/04/2018(SATURDAY)** |
|  **Revision** |
| **WEEK 18** |
| **ASSIGNMENT:** |
| **WEEK 18,DAY1 ,DATE :30/04/2018(MONDAY)** |
| **Revision** |