**Lesson Plan**

Name of the Teacher Poonam Bansal

Class Msc 2nd (Maths)

Name of Subject with Code MTHCE-2306: Advanced Mechanics of solids

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| **Week1,** | | |
| 01-08-18 | Introduction of the paper | |
| 02-08-18 | two dimensional problems:plane stress and its expression | |
| 03-08-18 | generalised plane stress | |
| 04-08-18 | Airy stress function | |
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| **Week 2,** |  | |
| 06-08-18. test of plane stress n generalised plane stress | | |
| 07-08-18 | test discussion | |
| 08-08-18 | general soln of biharmonic eqn | |
| 09-08-18 | stress in terms of analytic fun | |
| 10-08-18 | displacement in terms of analytic fun | |
| 11-08-18 | test of stress and displacement in terms of analytic fun | |
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| **Week 3,** | | |
| 13-08-18 | structure of functions Phi (z) and phsi (z) | |
| 14-08-18 | first B.V.P | |
| 16-08-18 | 2nd B.V.P | |
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| **Week 4,** |  | |
| 20-08-18. existance and uniqueness of soln | | |
| 21-08-18 | basic problems for finite ,infinite,circular region | |
| 22-08-18 | test of unit 3rd | |
| 23-08-18 | test discussion | |
| 24-08-18 |  | |
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| **Week 5,** |  | |
| 27-08-18 | problem soln of students | |
| 28-08-18 | introduction to. unit 1st | |
| 29-08-18 | torsion :meaning of torque ,torsion ,bending | |
| 30-08-18 | torsion of cylindrical shaft | |
| 31-08-18 | torsion of cylindrical bars with circular cross-section and other than circular cross-section | |
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| **Week 6,** |  | |
| 01-09-18 | test of above two articles | |
| **Week 7,** |  | |
| 04-09-18 | test discussion | |
| 05-09-18 | torsional rigidity and it's expression | |
| 06-09-18 | neumann's B.V.P | |
| 07-09-18. torsion and stress fun | | |
| 08-09-18 | lines of shearing stress | |
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| **Week8,** |  | |
| 10-09-18 | simple problems related to equilateral triangle | |
| 11-09-18 | grooves problem | |
| 12-09-18 | torsion of rectangular beam | |
| 13-09-18 | torsion of triangular prism | |
| 14-09-18 | test of torsion of rectangular beam and triangular prism | |
| **Week 9,** | | |
| 17-09-18 | test of section 1st | |
| 18-09-18 | discussion of test | |
| 19-09-18 | intro to unit 2nd | |
| 20-09-18 | torsion problems through conformal mapping | |
| 21-09-18 | torsion problem analogy | |
| 22-09-18 | torsion of hollow beam | |
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| **Week 10,** | | |
| 24-09-18 | torsion of anisotropic beam | |
| 26-09-18 | bending of circular beam | |
| 27-09-18 | bending of ellpitic beam | |
| 28-09-18 | bending of rectangular beam | |
| 29-09-18 | test of above topic of unit 2nd | |
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| **Week 11,** | | |
| 1-10-18 | test. discussion | |
| 3-10-18 | torsion of cylinder by lateral loads | |
| 4-10-18 | full test of unit 2nd | |
| 5-10-18 | test discussion | |
| 6-10-18 | introduction to unit 4th | |
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| **Week 12,** | | |
| 8-10-18 | 3-D problems | |
| 9-10-18 | general soln | |
| 10-10-18 | concentrated forces | |
| 11-10-18 | deformation by normal loads | |
| 12-10-18 | the problems of boussinesq | |
| 13-10-18 | elastic sphere | |
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| **Week 13,** | | |
| 15-10-18 | pressure,harmonic s,equillibrium | |
| 15-10-18 | interagration methods | |
| 16-10-18 | thermoelastic problems | |
| 17-10-18 | vibration in ekastic solids | |
| 18-10-18 | test of unit 4th | |
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| **Week 14,** |  | |
| 22-10-18. test discussion | | |
| 23-10-18 | revision of stess and generalised stress | |
| 25-10-18 | revision of airy stress fun | |
| 26-10-18 | test of above articles | |
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| **Week 15,** |  | |
| 29-10-18 | revision of stress and displacement in terms of analytic functions | |
| 30-10-18. problem solving day | | |  |
| 31-10-18 | test of above article | |
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| **Week 16,** |  | |
| 02-11-18 | test discussion | |
| 03-11-18 | revision of structure of fun phi (z) n phsi (z) | |
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| **Week 17** | | |
| 05-11-18 | test of above article | |
| 10-11-18 | revision of torsion concept | |
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| **Week 18** |  | |
| 05-11-18 | revision of torsion of cylindrical shaft n bars | |
| 10-11-18 | revision of torsional rigidity | |
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| **Week 19** |  | |
| 12-11-18 | torsion of rectangular prism and elliptical cylinder | |
| 13-11-18 | test of above articles | |
| 14-11-18 | test discussion | |
| 15-11-18 | revision of torsion of anisotropic beam | |
| 16-11-18 | revision of bending of circular,ellpitic,rectangular beam | |
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| **Week 20** |  | |
| 19-11-18 | test of above articles | |
| 20-11-18 | full test of unit 2nd | |
| 21-11-18 | revision of unit 4 | |
| 22-11-18 | soln of students doubts | |
| 24-11-18 | test of unit 4 | |
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