**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Session Odd Semester**

**(2017-18)**

**Class: BSc II Name of the Teacher: Kamlesh Kumari**

**Subject: PHYSICS Period: 2017-18**

**Paper: Room No:**

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| **S. No** | **Date From** | **Date Upto** | | **Topics to be covered** |
| Week 1 | July 22 & July 24 2017 | July 29, 2017 | | Concept of coherence, spatial and temporal coherence, coherence time, coherence length,area of coherence. |
| Week 2 | July 31 2017 | Aug 5, 2017 | | Conditions for observing interference fringes. Interference by wavefront division and  amplitude division. Young’s double slit experiment. Lloyd’s mirror and Fresnel’s biprism ,phase change on reflection. |
| Week 3 | Aug 7, 2017 | Aug 12, 2017 | | Newton’s rings, Michelson interferometer -working, principle andnature of fringes. Interference in thin films, Role of interference in anti-reflection . Multiple beam interference. |
| Week 4 | Aug 14, 2017 | Aug 19, 2017 | | Fabry-Perot interferometer, nature of fringes, finesse.  *Numerical problems .* |
| Week 5 | Aug 21, 2017 | Aug 26, 2017 | | *Class Test .*  *Diffraction :* Huygens-Fresnel’s theory of Diffraction. Fresnel’s half period zones. |
| Week 6 | Aug 28, 2017 | Sept 2, 2017 | | zone plates. Distinction between Fresnel and Fraunhofer diffraction. Fraunhofer diffraction due to single slit and intensity distribution , double slits. |
| Week 7 | Sept 4, 2017 | Sept 9, 2017 | | Fraunhofer diffraction due to Multiple slits (qualitative). Fraunhofer diffraction at rectangular (qualitativediscussion) and circular apertures. |
| Week 8 | Sept 11, 2017 | Sept 16, 2017 | | *Numerical problems and class test .* |
| Week 9 | Sept 18, 2017 | Sept 23, 2017 | | Effects of diffraction in  optical imaging, resolving power of microscope and telescope, |
| Week 10 | Sept 25, 2017 | Sept 29, 2017 | | diffraction grating, its use as a spectroscopicelement, resolving power, Moire’s fringes. |
| **Autumn Break (30 Sept 2017- 09 Oct 2017)**  **Mid Semester Exam (10 Oct 2017 – 17 Oct 2017)** | | | | |
| Week 11 | Oct 18, 2017 | | Oct 21, 2017 | Numerical problems . |
| Week 12 | Oct 23, 2017 | | Oct 28, 2017 | Discussion of Objective type questions . |
| Week 13 | Oct 30, 2017 | | Nov 4, 2017 | Polarization : Concept and analytical treatment of unpolarised, plane polarized  and elliptically polarized light. |
| Week 14 | Nov 6, 2017 | | Nov 11, 2017 | Double refraction, Nicol prism. |
| Week 15 | Nov 13, 2017 | | Nov 18, 2017 | sheet polarisers, retardation plates. |
| Week 16 | Nov 20, 2017 | | Nov 25, 2017 | Production and analysis of polarized light (quarter and half wave plates). |
| Week 17 | Nov 27, 2017 | | Dec 1, 2017 | Numerical problems and class test. |