NOTIFICATION

No. 131 / 2022 Date: 15 /09/2022

Subject : Continuation of Prospectus No.2015124 prescribed for M.Sc.(Physics) Part-II (Sem.III) & IV for the Session 2022-23.

It is notified for general information of all concerned that the Prospectus No.2015124 prescribed for session/examination 2014-15 of M.Sc.Part-II (Physics) (Sem.III& IV)which was continued for 2021-22shall also be continued for the session 2022-23 along with following corrections in the syllabi as given in the following Table.

TABLE

Sr. No.	Reference in the Prospectus	Additions/Deletions/Substitutions recommended
1	2	3
1	M. Sc.–II (Physics) Semester-III Prospectus No.: **2015124 (Page No.24& 25)**	Under the title **'3PHY-5(ii) –Lab Course on Condensed Matter Physics',** In list of experiments Sr.No.1 to 12 be deleted & new modified List of Experiments is as given below: 1. To find the velocity of sound waves in a given rod with Kundt's tube apparatus. 2. To find Young's modulus of the materials of the rod using Kundt's tube. 3. Determination of Magnetic Susceptibility of Material by Quincke's Method. 4. Study of Magnetic Properties (Coercively, retentivity, saturation magnetisation and hysteresis loops) of ferromagnetic samples (soft iron, hard steel & nickel). 5. To study variation of Dielectric constant of a given solid with temperature/frequency. 6. Determination of Curie temperature of a given ferroelectric sample using LCR meter. 7. Determination of magnetic susceptibility of a solid by Gouys balance method. 8. Determination of band gap of semiconductor by variation of conductivity with temperature. 9. Determination of Lande's 'g' factor of DPPH using Electron Spin Resonance Spectrometer. 10. Determination of thermoelectric power of a substance. 11. Determination of specific heat of graphite. 12. Determination of adiabatic compressibility of a given liquid using Ultrasonic Interferrometer. 13. Study of lattice dynamic of monoatomic and diatomic molecules. 14. Determination of thermal conductivity of a given liquid. **15.** To study the crystal structure of the compound using Celrefprogramme.

2.	**M. Sc.–II (Physics) Semester-IV Prospectus** No.: **2015124 (On Page No.40)**	Under the title '3PHY-5(ii) –Lab Course on Condensed Matter Physics', In list of experiments Sr.No.1 to 12 be deleted & new modified List of Experiments is as given below: **4PHY-5-M.Sc. II Semester IV Lab Course 1 (Condensed Matter Physics-II)** List of Experiments 1. Estimation of average crystallite size from given X-ray diffraction data. 2. Measurement of residual stress by X-ray diffraction. 3. Quantitative X-ray analysis using Rietveld refinement using MAUD or Fullprof software. 4. Determination of Lattice parameters and crystallite size using powder diffraction patterns (Theoretical) 5. Study of crystal structure by Laue's Pattern. (Theoretical) 6. Determination of Electrical Conductivity of a given material by Four Probe Method. 7. Deposition of nanometer size thin films and determination of its thickness. 8. To determine the grain size of the compound using SEM micrograph. (Theoretical) 9. To study variation of ionic conductivity of given sample with temperature. 10. Measurement of photo conductivity of a given sample. 11. Determination of Poisson's ratio by of a glass Cornue's method. 12. Measurement of dislocation density by etch-pit method. 13. To determine the particle size and size distribution of the compound using TEM image. (Theoretical) 14. Determination of acoustic impedance of a given liquid using Ultrasonic Interferrometer. 15. Visualization of crystal structure of given sample using VESTA software.

Sd/-
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