

ANUPGCET-2020

107-INTEGRATED M.Sc. COURSE - M.SC. NANOTECHNOLOGY (5 YEARS) (SYLLABUS)

Max. Marks: 100

PHYSICS:

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|---------------------------------------|--|------------------------|
| 1. Measurements, Units and Dimensions | 2. Elements of Vectors | 3. Kinematics |
| 4. Dynamics | 5. Collisions | 6. Centre of Mass (CM) |
| 7. Friction | 8. Rotatory Motion | 9. Gravitation |
| 10. Simple Harmonic Motion (Shm) | 11. Elasticity | 12. Surface Tension |
| 13. Fluid Mechanics | 14. Temperature And Thermal Expansion of Materials | |
| 15. Thermodynamics | 16. Transmission of Heat | 17. Wave Motion |
| 18. Optics | 19. Physical Optics | 20. Magnetism |
| 21. Electrostatics | 22. Current Electricity | 23. Thermoelectricity |
| 24. Electromagnetics | 25. Atomic physics | 26. Nuclear Physics |
| 27. Semi Conductor Devices | 28. Communication Systems | |

CHEMISTRY:

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| 1. Atomic Structure | 2. Classification of Elements And Periodicity In Properties |
| 3. Chemical Bonding and Molecular Structure | 4. Stoichiometry |
| 5. States of Matter: Gases and Liquids | 6. Solutions |
| 7. Electro Chemistry | 8. Solid State |
| 9. Chemical Kinetics | 10. Thermodynamics |
| 11. Surface Chemistry | 12. Hydrogen and Its Compounds |
| 13. Alkali and Alkaline Earth Metals | |
| 14. p-Block Elements: Group 13 Elements: (IIIA Group Elements) | |
| 15. p-Block Elements: Group 14 Elements: (IVA Group Elements) | |
| 16. p- Block Elements: Group 15 Elements (VA Group Elements) | |
| 17. p- Block Elements: Group 16 Elements (Via Group Elements) | |
| 18. P- Block Elements: Group 17 Elements (VIIA Group Elements) | |
| 19. Group 18 Elements: (Zero Group Elements) | |
| 20. Transition Elements | 21. General Principles of Metallurgy |
| 22. Environmental Chemistry | 23. Basic Principles and Techniques in Organic Chemistry |
| 24. Hydrocarbons | 25. Alkynes & Aromatic Hydrocarbons |
| 26. Stereo Chemistry | 27. Haloalkanes & Haloarenes: Haloalkanes |
| 28. Alcohols , Phenols and Ethers | 29. Aldehydes and Ketones |
| 30. Carboxylic Acids | 31. Organic Compounds Containing Nitrogen |
| 32. Polymers & Biomolecules | 33. Chemistry in everyday life |

MATHEMATICS:

1. Algebra 2. Trigonometry 3. Vector Algebra 4. Probability 5. Coordinate Geometry 6. Calculus

