## Test Pattern

1. **Topic Wise Test (TWT):-** There are 67 topic wise test and time duration of each test is 1:00 Hour.
2. **Part Wise Test (PWT):-** There are 55 questions in each test and time duration is 3:00 Hour. Total number of test is **ten**.
3. **Full Length Test (FLT):-** These full length tests are as per CSIR-NET Exam pattern. There are 75 questions in each out of 75 questions 55 number of questions have to be attempt and time duration is 03:00 Hour. Total number of test is **five**.
4. Student can attempt more than **1600** number of questions.

## Topic Wise Test (TWT) Schedule

| 01 Mathematical Physics | | |
|---|---|---|
| **Status** | **Name of Test** | **Topics** |
| Released | TWT -01 | Vector Analysis |
| | TWT -02 | Dirac Delta Function |
| | TWT -03 | Ordinary Differential Equation |
| | TWT -04 | Linear Algebra and Matrices |
| | TWT -05 | Fourier Series |
| | TWT -06 | Fourier Transform and Laplace Transform |
| | TWT -07 | Partial Differential Equation, Special Functions and Green Function |
| | TWT -08 | Numerical Technique |
| | TWT -09 | Complex Variable |

| 02 Classical Mechanics | | |
|---|---|---|
| **Status** | **Name of Test** | **Topics** |
| Released | TWT -01 | Stability analysis and Phase Space dynamics |
| | TWT -02 | Lagrangian Formalism |
| | TWT -03 | Hamiltonian Formalism |
| | TWT -04 | Central Force |
| | TWT -05 | Rotational Dynamics |
| | TWT -06 | Special theory of relativity |

| 03 Electromagnetic Theory | | |
|---|---|---|
| **Status** | **Name of Test** | **Topics** |
| Released | TWT -01 | Upto Properties of Conductor |
| | TWT -02 | Upto Boundary Condition |
| | TWT -03 | Motion of Charged Particles to Amperes Law |
| | TWT -04 | Magnetic Vector Potential to Magneto-static Boundary Conditions |
| | TWT -05 | Maxwell's Equations |

| | | |
|---|---|---|
| | TWT -06 | EM waves in unbounded media and Reflection-Transmission |
| | TWT -07 | Waveguide to Radiation from charges |
| | TWT -08 | Electromagnetic Theory (Optics) |

| 04 Quantum Mechanics | | |
|---|---|---|
| **Status** | **Name of Test** | **Topics** |
| Released | TWT -01 | Tool and Postulates |
| | TWT -02 | Particle in Box (Free Particle) |
| | TWT -03 | 1D Harmonic Oscillator, Dirac Function and 2D, 3D in Cartesian coordinate |
| | TWT -04 | Angular Momentum, Hydrogen Atom and Spin |
| | TWT -05 | Approximation Method |
| | TWT -06 | Advanced Quantum Mechanics |

| 05 Thermodynamic and Statistical Physics | | |
|---|---|---|
| **Status** | **Name of Test** | **Topics** |
| Released | TWT -01 | KTG and MB |
| | TWT -02 | 1st and 2nd Law of Thermodynamics |
| | TWT -03 | Thermodynamic Potential |
| | TWT -04 | Statistical Mechanics |
| | TWT -05 | Canonical Partition Function |
| | TWT -06 | Statistical Mechanics -1 |
| | TWT -07 | Statistical Mechanics -2 |

| 06 Electronics and Experimental Methods | | |
|---|---|---|
| **Status** | **Name of Test** | **Topics** |
| Released | TWT -01 | Network Analysis |
| | TWT -02 | Semiconductor Physics |
| | TWT -03 | PN Junction diode |
| | TWT -04 | Transistor |
| | TWT -05 | OP-AMP |
| | TWT -06 | Digital Electronics -1 |
| | TWT -07 | Digital Electronics – 2 |
| | TWT -08 | Experimental Methods |

| 07 Atomic & Molecular Physics | | |
|---|---|---|
| **Status** | **Name of Test** | **Topics** |
| Released | TWT -01 | Bohr's Theory and Sommerfeld Model |
| | TWT -02 | Fine Structure |
| | TWT -03 | L-S & J-J Coupling |
| | TWT -04 | Zeeman Effect |
| | TWT -05 | Paschen Back Effect & Hyperfine Structure |


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| | | |
|---|---|---|
| | TWT -06 | Rotational Spectroscopy |
| | TWT -07 | Vibrational and Raman Spectra |
| | TWT -08 | Laser |

| 08 Solid State Physics | | |
|---|---|---|
| **Status** | **Name of Test** | **Topics** |
| Released | TWT -01 | Crystal Structure |
| | TWT -02 | XRD and Reciprocal Lattices |
| | TWT -03 | Lattice Vibrations |
| | TWT -04 | Specific Heat of Solid |
| | TWT -05 | Free Electron Theory |
| | TWT -06 | Band Theory of Solid |
| | TWT -07 | Superconductor |

| 09 Nuclear and Particle Physics | | |
|---|---|---|
| **Status** | **Name of Test** | **Topics** |
| Released | TWT -01 | General properties of nuclei |
| | TWT -02 | Liquid Drop Model |
| | TWT -03 | Shell Models and Collective Models |
| | TWT -04 | Nuclear Forces |
| | TWT -05 | Radioactivity |
| | TWT -06 | Alpha beta and gamma decay |
| | TWT -07 | Nuclear Reactions, Fission and Fusion |
| | TWT -08 | Particle Physics |

## Part-Wise Test (PWT) Pattern And Schedule

Total Number of Questions for each topic: **55 Questions**

Part B Questions (3.5 Marks): **25 Questions**

Part C Questions (5.0 Marks): **30 Questions**

| Status | Name of Test | Paper Name |
|---|---|---|
| Released | PWT – 01 | Mathematical Methods of Physics |
| | PWT – 02 | Classical Mechanics |
| | PWT – 03 | Electromagnetic Theory |
| | PWT – 04 | Quantum Mechanics |
| | PWT – 05 | Thermodynamic and Statistical Physics |
| | PWT – 06 | Electronics and Experimental Methods |
| | PWT – 07 | Atomic & Molecular Physics |
| | PWT – 08 | Solid State Physics |
| | PWT – 09 | Nuclear and Particle Physics |
| | PWT – 10 | PART – A |

## Full Length Test (FLT) Pattern And Schedule

Total Number of Questions for each topic: **75 Questions**

Part A Questions (2.0 Marks): **20 Questions**

Part B Questions (3.5 Marks): **25 Questions**

Part C Questions (5.0 Marks): **30 Questions**

| Date | Name of Test | Syllabus |
|---|---|---|
| To be announced soon | FLT – 01 | Complete Syllabus of NET-JRF |
| To be announced soon | FLT – 02 | Complete Syllabus of NET-JRF |
| To be announced soon | FLT – 03 | Complete Syllabus of NET-JRF |
| To be announced soon | FLT – 04 | Complete Syllabus of NET-JRF |
| To be announced soon | FLT – 05 | Complete Syllabus of NET-JRF |

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