## Joint Entrance Screening Test - 2023

## For Ph.D. and Int. Ph.D. Programmes in

Physics / Theoretical Computer Science / Computational Biology / Neuroscience

March 11, 2023 (Saturday), from 10.00 a.m. to 1.00 p.m.

Test Centres: Ahmedabad, Aligarh, Allahabad, Amritsar, Bangalore, Bardhaman, Bhopal, Bhubaneswar, Chandigarh, Chennai, Delhi, Goa, Guwhati, Hyderabad, Indore, Jaipur, Kanpur, Kharagpur, Kochi, Kolkata, Kozhikode, Madurai, Mangalore, Mumbai, Nagpur, Nainital, Patna, Pune, Raipur, Roorkee, Sambalpur, Silchar, Siliguri, Srinagar, Trivandrum, Udaipur, Vijayawada, and Vishakhapatnam.

## Apply online through https://www.jest.org.in from January 27, 2023 to February 25, 2023.

The Science & Engineering Research Board (SERB) (statutory body established through an Act of Parliament) recognized JEST as a National Eligibility Test sponsored programmes/projects vide their Office Memo No. SB/S9/Z-01/201S. Qualifying in JEST does not entitle an applicant to get a Research Fellowship.

Using the JEST results, each institute will call a limited number of candidates for further selection depending on their requirements.

International Centre for

Astrophysical Relativity, Data

String Theory.

Assimilation & Dynamical Systems,

Statistical Physics & Turbulence,

TIFR-Bengaluru

Theoretical Sciences.

**Indian Institute of Science** 

Education and Research,

**Ouantum Information** 

(Experiment and Theory), Complex

Astrophysics & Cosmology, Particle

Physics and Field Theory, Statistical

physics. Quantum thermodynamics

Ultra-fast Physics, low temperature

Jawaharlal Nehru Centre

for Advanced Scientific

Experimental & Theoretical

condensed matter physics.

**UGC-DAE Consortium for** 

Scientific Research, Indore

Condensed Matter Physics:

thin films; electron, optical,

X-ray spectroscopies; scanning probe

microscopies: Positron annihilation:

Raman & Mössbauer spectroscopy:

synchrotron; Neutron diffraction;

Experimental Nuclear Physics: v-ray

Spectroscopy and heavy ion reaction.

XMCD & spectroscopy with

Research, Bengaluru

Condensed Matter (Theory and

Experiment), NMR-Methodology,

Biophysics, Advanced electron

matter.

microscopy, Statistical mechanics,

Materials science & Soft condensed

systems & Networks, Theoretical

FCICO Aryabhatta Research Institute of Observational Sciences, Nainital

Astronomy and Astrophysics, Atmospheric Physics.



**Indian Institute of Science** Education and Research,

Condensed matter physics (Theory and Experiment) Soft matter physics (Theory), Biophysics, Laser plasma interactions. Ultrafast physics (Experiments). Astrophysics and Cosmology, High energy physics (Theory, phenomenology, experiment), Nonlinear optics, Atomic & Molecular physics (Theory & Experiment).

> **Indian Institute of Science** IISER Education and Research, 'Tirupati

Theoretical Astrophysics, Observational Astronomy, **Experimental and Theoretical** Condensed Matter Physics, **Experimental and Theoretical Soft** Matter Physics, Nonlinear dynamics and complex networks, Experimental High Energy Physics, Atomic and Molecular Physics, Non equilibrium statistical Physics and active matter, Optics and Opto-electronics.

Tata Institute of Fundamental Research,

Astronomy & Astrophysics, Condensed matter physics & material science, High energy physics, Nuclear & Atomic physics, Theoretical physics

Mumbai

Indira Gandhi Centre for Atomic Research.

Solid state phase transformations, Superconductivity, Structure & dynamics of soft condensed matter, Computational materials science. Accelerator-based irradiation induced phenomena, Low dimensional systems. Physics of interfaces, Nano-materials, Thin films technology & Theoretical physics.

Institute for Plasma Research, Gandhinagar

Plasma Physics Research involving theory & experiments on magnetic confinement fusion plasma. complex/dusty plasma, industrial plasma applications including plasma material processing; laser produced plasma, laser plasma interaction. radio-frequency plasma applications

Bose Institute, Kolkata

Atmospheric Sciences,

systems and networks,

**Indian Institute of Science** 

**Education and Research** 

Condensed Matter Physics

(Theory & Experiments), Field Theory,

Classical & Quantum Gravity, Cosmology,

Astrophysics, Solar Science, High Energy

Physics, Nonlinear Dynamics, Statistical

Photoluminescence Spectroscopy, Atomic &

Spintronics, Nanoscience, NMR, Quantum

Information Processing, Biological Physics

S.N. Bose National Centre for

Basic Sciences, Kolkata

Chemical & Biological physics,

Condensed matter physics &

and Quantum field theory.

physics, Complex system.

Mathematical physics,

Astrophysics & Cosmology.

material science, High energy physics

Nanosciences, Quantum optics &

quantum information. Statistical

Tata Institute of

materials science of nonequilibrium.

Soft & living matter, Fluid dynamics.

Intense laser-matter interactions.

Computational physics, Statistical

physics, NMR of Biophysical & other

Hyderabad

Condensed matter physics &

Fundamental Research,

Optics, Ultrafast, THz, Raman &

Molecular Physics, Biophoton

Biophysics, Complex

Condensed matter physics and

materials science, High energy

**Quantum physics and Quantum** 

physics.

Kolkata

Physics and Astroparticle physics,

information. Nuclear and radiation

Fundamental and applied

Experimental and theoretical condensed matter physics, experimental and theoretical high energy physics, string theory, cosmology & astrophysics, nonlinear and quantum optics, quantum information.

National Institute of Science Education and Research, Bhubaneswa

Raja Ramanna Centre for Advanced Technology.

Laser plasma interaction, Cold atom physics, Condensed matter physics, Superconductivity & magnetism. Crystals & Thin Films, Nanomaterials & applications, Non-linear & Ultrafast Ontical studies, Beam physics and Free electron laser.

Lasers & their applications Nuclear physics (Theory & Experiment). High energy physics (Theory & Experiment), Relativistic heavy ion collisions & OCD phase transition (Theory & Experiment). Astroparticle physics, Cosmology, Quantum gravity, String theory,

Indian mo.. Bengaluru 👱 Condensed matter physics (Experiments & Theory),

Indian Institute of Science,

Astronomy & Astrophysics (Theory), Atomic & Molecular physics (Experimental), Bio-crystallography & Bio-informatics, & High energy physics (Theory).

Indian Institute of Science Education and Research. Berhampur

Condensed matter physics (Theory and Experiment), Electronic Materials & Devices, High energy physics (Theory, Phenomenology, Experiment), Nuclear Structure, Photonics, Quantum Theory, **Ouantum Information.** 

**Indian Institute of Science** Education and Research,

Condensed matter physics, Computational material science. Nanotechnology Atomic Physics & **Ouantum Optics, Nonlinear** dynamics. Astrophysics. Particle physics and Field theory, Solar & Plasma physics, Quantum information processing, Soft matter.

Centre, Gurgaon

& Translational Neurosciences.

**Functional connectomics** 

Neurocomputing, Neuroinformatics,

Neuroimaging, Neurophysiology and

**Constituent Institutes of** 

Homi Bhabha National

Institute, Mumbai

The Institute of

**Theoretical Computer Science &** Computational Biology.

Chennai

A Deemed University

**Mathematical Sciences**,

Theoretical Physics,

Inter-University Centre for

All areas of Astronomy &

Astronomy and

Astrophysics including Ground and

Space-based Instrumentation and

Extragalactic astronomy, High energy

astrophysics. Large-scale structure. Gravitation and Cosmology.

astrophysics, Gravitational waves

Theoretical and Computational

Observations, Solar physics,

Astrophysics, Pune

Indian Institute of Science **Education and Research,** Thiruvananthapuran

Experimental: Magnetism, Superconductivity, Nanoscience, Photonics, Semiconductor Physics, Surface sciences, Nanoscale plasmonics, Ultrafast spectroscopy, Nonlinear optics; Theory: Cosmology Quantum information, Statistical physics, Condensed matter, String theory & Nonlinear dynamics

**Indian Institute of Space** Science and Technology, Thiruvananthapuram

Astronomy & Astrophysics, Atmospheric Sciences, Applied & Adaptive Optics, Atomic & Molecular Physics, Condensed Matter Physics, Nanotechnology, Nuclear Magnetic Resonance - Novel Methods & Applications, Nonlinear Dynamics, Optics & Quantum Information, Statistical Physics.

**National Brain Research Physical Research** Laboratory, Ahmedabad Molecular, Systems, (There are three additional Computational, Cognitive campuses situated in

> Ahmedabad, Udaipur and Mt. Abu) Theoretical physics, Astronomy & Astrophysics, Solar physics. Space & Atmospheric sciences, Planetary science, Geophysics, Atomic & molecular physics & Optical physics.

Raman Research Institute. Bengaluru Astronomy & Astrophysics, Light & Matter Physics, Soft **Condensed Matter and** Theoretical Physics. Radio RRI & X-ray Astronomy, Signal

Processing, Imaging and Instrumentation. Ultrafast phenomena, Liquid Crystals, Soft Materials & Active Systems, Physics in Biology, Classical and Quantum Gravity, Statistical Physics and Stochastic Processes.

Institute of Physics,

National Centre for Radio Astrophysics, TIFR-Pune Astronomy & Astrophysics.

Physics (Condensed matter Nuclear and High energy physics) & Accelerator-based research.

Harish-Chandra Research Institute, Allahabad Theoretical physics and Astrophysics.

Saha Institute of Nuclear

Condensed matter physics

(Theory & Experiment),

Physics, Kolkata

Mathematical physics, Surface

science & Plasma physics.

Variable Energy Cyclotron Centre, Kolkata Accelerator physics,

Condensed matter physics & materials science, Nuclear physics (Experiment and Theory), Relativistic heavy ion collisions & OCD Phase transition (Experiment and Theory).

## **Eligibility Criteria**

M.Sc, Integrated Ph.D.: B.Sc. in physics/mathematics; Regular Ph.D.: M.Sc in physics/ applied-physics; B.Tech./B.E./M.E./M.Tech./ 4 year B.S./M.C.A. may also be considered for M.Sc and Ph.D (integrated and regular) programmes in some institutes.

Please check the websites of individual institutions for further details. Students in the final year of these courses are also eligible to appear for JEST 2023. Application through email or by post will not be accepted.

Application Fee: Rs. 800/- (Rs. 400/- for Female and SC/ST candidates). For further information please visit JEST website: https://www.jest.org.in