

Career opportunities in Physics after cracking competitive exams like CSIR-UGC and GATE:

Experts believe that it is hardly an exaggeration if one says that physics is the mother of all sciences and technologies. It is proved by anything you observe in today's modern world, starting from nanotechnology, bio – physics, string theory to quantum computation and many more-you just name it and a physics expert will be present!

There are excellent career avenues once you clear exams like GATE or CSIR –UGC-JRF-/NET.

- A. After cracking the GATE exam, you have the following options:
- (1) Do M.Tech. from any one of the IITs in any one of the field
    - (a) Microelectronics
    - (b) Applied optics
    - (c) Optoelectronics & Optical Communication
    - (d) Solid State Materials
    - (e) VLSI Design Tools and Technology
    - (f) Instrument Technology
    - (g) Nuclear engineering and Technology
    - (h) Laser technology
    - (i) Atmospheric science & technology
    - (j) Solid state technology
    - (k) Solid state Electronics materials
    - (l) Computer applications
    - (m) Computational seismology
  - (2) Do **Ph.D.** in one of the IITs or IISc Bangalore
- B. If you can clear CSIR-UGC-JRF/NET exam. You may have the following options:
- (1) Do Ph.D. from any one of the IITs, IISc Bangalore, IISER or any Indian University
  - (2) Join as a lecture in any of the UGC recognized institutes if positions available.
  - (3) Join any CSIR or DST funded project.
- C. You can get direct appointment in organizations like BARC, DRDO, ISRO, ONGC etc. if you can crack the relevant examinations.
- D. You can appear in JEST exam. To do quality research in the following reputed organizations:
- (a) IUCAA (Inter university centre for Astronomy and astrophysics, Pune)
  - (b) IIA (Indian Institute of Astrophysics, Bangalore)
  - (c) HRI (Harish Chandra Research Institute, Allahabad )
  - (d) IMSc (Institute of Mathematical Science, Chennai)
  - (e) RRI (Raman research Institute, Bangalore)
  - (f) PRL (Physical Research Laboratory, Ahmedabad)
  - (g) IOP (Institute of Physics)
  - (h) SINP (Saha Institute of Nuclear Physics, Kolkata)
  - (i) SNBCBS (Satyendra Nath Bose Centre for Basic Sciences, Kolkata)
  - (j) IPR (Institute of plasma Research, Ahmedabad)

All of the above research institutes are very well recognized research institutes worldwide. Any serious Physics student interested in research should try for them.

- E. Students interested in doing Ph.D. can try for institutes like JNU and TIFR also. They can appear in the entrance examination conducted by these institutes.

Career opportunities in chemistry after cracking competitive exams like CSIR-UGC-JRF/NET and GATE.

Like all Sciences, Chemistry has a unique place in our pattern of understanding of the Universe. It is science of molecule and you are always enveloped of it. As you read these world, your eyes are using an organic compound (Retinal) to convert visible light into nerve impulses.

When you pick up this booklet your muscles were doing chemical reactions on sugars to give you the energy you needed.

There are excellent career avenues once you clear exams like GATE or CSIR-UGC-NET in chemistry.

Let us be specific.

- A. After cracking the Gate Exam you have the following options:
  - 1. Do M.Tech from any one of the IITs in anyone of the field:
    - (a) Molecular Engg. Chemical Synthesis & Analysis
    - (b) Advanced Chemical Analysis
    - (c) Biotechnology and Biochemical Engineering
    - (d) Polymer science & Technology
    - (e) Environmental Science & Management
    - (f) Modern method of Chemical Analysis
    - (g) Textile Engineering
    - (h) Material Science and Metallurgy
    - (i) Energy Studies
    - (j) Fiber Science
    - (k) Rubber Technology
    - (l) Biomedical Engineering
    - (m) Material Sciences
    - (n) Solid State Technology
  - 2. Do Ph.D. in any one of IITs, IISc, NCL, CDRI, TIFR etc.
- B. If you clear CSIR-UGC-JRF/NET Exam, you may have the following options;
  - (i) Do Ph.D. from any one of IITs, IISc, NCL, CDRI, TIFR, IISER or any Indian University.
  - (ii) Join as lecturer in any of UGC recognized institute if positions available.
  - (iii) Join any CSIR or DST funded project.
- C. You can get direct appointment in organization like BARC, DRDO, NTPC, ONGC, Hindustan Refinery & Indian oil etc. if you can crack the relevant examinations.