

**INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY)
VARANASI – 221 005**

**Information Brochure for Admission to M.Tech., M.Pharm. and Ph.D. Programmes for
Odd Semester of the Academic Session 2026-27**

The P.G. programmes of the Indian Institute of Technology (Banaras Hindu University), Varanasi are aimed at training manpower with sound theoretical and experimental background in frontier areas of research in the engineering, sciences and interdisciplinary subjects. The emphasis is on understanding the scientific basis and engineering principles involved in solving problems of practical importance in the relevant field using multidisciplinary approach. An important component of these programmes is to inculcate the habit of independent thinking and initiative by the candidates in planning and execution of the research work. These programmes seek to train manpower of the highest quality to cater to the needs of industry, R & D organizations and educational institutions.

The Institute has ten Engineering three Science and a Humanistic Studies Departments and three Interdisciplinary Schools which offer PG programmes in the respective disciplines. Joint registrations for Ph.D. programme involving more than one department/ school are encouraged to promote multi-disciplinary research.

Duly filled-in on-line applications on the prescribed form on our website are invited for admission to M.Tech./ M.Pharm./ Ph.D. programmes for registration in July 2026 semester of session 2026-27 in various disciplines as given in **Annexure-I** and **II**. Candidates whose qualifying examination results are not declared at the time of written test / interview may also be considered. In case such candidates are selected, their admission will be provisional subject to the condition that they produce proof of completing all the examinations including the project/thesis examination and the viva voce before the date of registration. Such candidates are required to produce the evidence of their having passed the qualifying degree examination with the minimum marks/grades for eligibility by the last date for document submission as mentioned in the academic calendar (usually about 8 weeks from the date of registration), failing which their admission shall be cancelled.

All forms mentioned in this document are made available on the admission portal. Please use the links provided in the instructions given therein.

1. M.Tech./M.Pharm. Programmes

A candidate may apply for any of the four categories of registration subject to the fulfillment of requirements, minimum qualification (1.A) and eligibility criteria (**Table 1A, Annexure-I**). The number of seats available for M.Tech./M.Pharm. Programmes are given in **Table 1B** of **Annexure-I**.

For the Project Fellow candidates

- In case the candidate has B.Tech./ B.S. (4-years) / B.E./ **B.Pharm.**/ M.Sc. or equivalent degree with CGPA / CPI more than 7.0 as the qualifying degree from IITs/NITS/CFTIs/State funded (top 100 NIRF) institutions, and is without GATE score, may be considered for admission to **part-time M.Tech./ M.Pharm.** programme.
- In addition to the above criteria, the applicants must also satisfy the eligibility criteria specified by the respective Departments /Schools for shortlisting in this category.
- The short-listed candidates need to qualify written test and interview as specified by individual Department /Schools.

1.A Full Time Regular Registration Category

Candidates who possess the requisite qualifications as indicated in **Table 1A** of **Annexure - I** are eligible for admission to postgraduate programmes in the respective Departments/ Schools of the Institute leading to M.Tech./M.Pharm. degree. The candidates should have secured a minimum of 60% marks / 6.0 CPI (on a 10.0 point scale) in the qualifying degree. In addition, they must have qualified in the Graduate Aptitude Test in Engineering (GATE) for M.Tech. Programmes & Graduate Pharmacy Aptitude Test (GPAT) for M.Pharm. Programme with validity not expired.

1.A.1 Financial Assistance

Financial assistance in the form of Institute Assistantships is available to the students admitted to M.Tech., M.Pharm. under Full Time regular registration category. Presently the Assistantships @ Rs. 12,400/- per month is available. A student shall be assigned duties up to eight hours per week by the Departments/Schools to avail the Teaching Assistantship. The renewal of assistantship is contingent on the student's satisfactory performance in the academic programme and in the discharge of assistantship duties on a semester to semester basis.

No student shall be admitted to Full time Regular Registration Category without Institute Assistantship. No student can get financial assistance from more than one source at a time.

1.B. Full Time External Registration Category

A candidate working in an external R&D organization or in an industry recognized by the Institute (the list of recognized external R&D organizations and industries is given in Annexure – III), which is equipped with necessary research and library facilities may be considered for admission to M.Tech./M.Pharm. programmes, provided he/she satisfies the eligibility criteria laid down for the programme concerned (see **Sec. 1.A and Table 1A Annexure-I**). Such a candidate must show satisfactory performance in the interview, must be sponsored by his/her employer and must have been in employment with the sponsoring organization for at least two years at the time of admission.

The requirement of qualifying in GATE/GPAT is waived off for such candidates for the purpose of admission to PG programmes.

The employer must undertake to pay full salary to the candidate and relieve him/her from the duty to enable the candidate to stay on the campus and to complete the course work requirements.

The candidate should submit a certificate obtained from his/her organization that the research facilities of his/her organization would be made available to him/her for carrying out research. He/she should also provide the bio-data of the prospective supervisor along with his/her consent, who would be supervising the candidate's work at his/her organization.

[N.B. Letter of appointment and Form – 16 for two years of service is required from the employer at the time of written test and interview.]

In addition, an R&D organization/industry or a research area in the specific organization may be recognised by the Institute as per the following procedure. On the recommendation of the DPGC, the Dean (Academic Affairs) will constitute a committee to assess and approve an R & D organization/industry for admission of sponsored candidates to M.Tech./M.Pharm. programmes. The committee may, upon inspection, also approve all the areas in which R & D activities are going on in that organization.

1.C. Full Time Sponsored Registration Category

A candidate who is sponsored by a teaching institution or by an R&D organization or by an industry is eligible for admission to M.Tech./M.Pharm. programmes, provided he/she satisfies the eligibility criteria laid down for the programme concerned (see **Sec. 1.A and Table 1A Annexure-I**). He/she must have been in service of the sponsoring institution/organization for at least two years at the time of admission. The sponsoring organization must specifically undertake to provide full salary to the candidate and to relieve him/her to pursue the programme for its full duration (see **Form I of the Application Form**). Such candidates have to complete the requirements of the programme by staying on-campus for the full duration of the programme.

The requirement of qualifying in GATE/GPAT is waived off for such candidates for the purpose of admission to PG programmes.

[N.B. Letter of appointment and Form – 16 for two years of service is required from the employer at the time of written test and interview. In addition, the candidate must submit an undertaking that he/she will continue to submit Form – 16 for the subsequent years till he/she completes the programme.]

1.D. Part-time Registration Category

The Institute offers part-time M.Tech. and M.Pharm. programmes for permanent staff and faculty members of the Institute as well as research assistants working in an externally funded research project running in the Institute, provided they satisfy the eligibility criteria laid down for the programme concerned (see Sec. 1.A and Table 1A Annexure-I). Such a candidate should submit a no-objection certificate from the Head of the Department/Coordinator of School/ Principal Investigator as the case may be (See From I & II of the Application Form) as applicable. They will be required to attend to normal duties assigned to them by the Department/School/ the Principal Investigator of the research project.

The Institute offers part time M.Tech./M.Pharm. Programme also to a professionally employed person, who pursues the programme while continuing the duties of his/her service provided the sponsoring institution/organization and engaged in broad areas of M.Tech./M.Pharm. Programme applied. He/she must be a regular employee of the sponsoring organization/institution for at least two year. No objection certificate from the Head of the Institution /organization must be enclosed with the application. The candidate must satisfy the eligibility criteria laid down for the programme concerned.

[N.B.: Letter of appointment and Form 16 issued by the employer for two years of service is required at the time of written test and interview. In addition, the must submit an undertaking that he/she shall continue to submit Form 16 for the subsequent years till he/she completes the programme.]

2. Ph.D. Programmes

A candidate may apply for any of the four categories of registration subject to the fulfillment of requirements, minimum qualification (2.A.1) and eligibility criteria (Table 2A, Annexure-II)

2.A. Full Time Regular Registration Category

Applicants must have the requisite qualification with minimum marks/CPI as mentioned below in the discipline concerned or in an allied discipline/area. A list of allied disciplines and research areas currently available for Ph.D. Programmes is given in Table 2A and 2B respectively of Annexure – II. The number of seats with Institute Assistantship available for Ph.D. Programmes in different disciplines are given in Table 2C of Annexure-II.

2.A.1 Minimum Eligibility Criteria: (see the more details for discipline-wise qualification given in Table 2B of Annexure-II)

1. Master's Degree/ M.Tech / M.E. / **M.Pharm.** / M.S. degree with CGPA/CPI more than 7.0 (on a 10.0 point scale) or equivalent from Indian(IITs/NITs/CFTIs/State funded universities (top NIRF 100) or Foreign (QS Ranking) Institutions/Universities may be exempted from the requirement of GATE / GPAT qualification for admission to Ph.D. programs under Teaching assistantship Category. Such candidates and NET-LS candidates need to qualify written test and interview as specified by the individual Department/Centre/ Schools.
2. Applicants with bachelor's degree in engineering in the discipline concerned or in an allied discipline/area must have a minimum of 75% marks or 7.5 CPI (on a 10.0 point scale) at the bachelor's degree level. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10 point scale) at bachelor degree provide the degree is from an Institution funded by the Central Government.
3. Applicants with master's degree in science as an allied discipline/area (where science is an allied discipline/area), must satisfy each of the following criteria:
 - (i) A minimum of 65% marks or 6.5 CPI (on a 10.0 point scale) at the master's degree level,
 - (ii) A minimum of 60% marks or 6.0 CPI (on a 10.0 point scale) at the bachelor's degree level.
4. In addition to general eligibility criteria, the applicants must also satisfy the eligibility criteria specified by the respective Departments/Schools for shortlisting.
5. The final selection process for the Ph.D. programme in any Departments/Schools/will be governed by individual Department /Schools.

For the Project Fellow candidates

- A candidate, applying for the Ph.D. Programme, at IIT(BHU) under this category, with M.Tech./ M.E. /M.Pharm/ MS degree with CGPA / CPI more than **7.0 (or equivalent)** from Indian (IITs/NITS/CFTIs/top 100 NIRF State funded) or Foreign (QS ranking) Institutions / Universities may be exempted from the requirement of GATE / GPAT qualification for the consideration of admission to Ph.D. programme.
- In addition to the above criteria, the applicants must also satisfy the eligibility criteria specified by the respective Departments /Schools for shortlisting in this category.
- The short-listed candidates need to qualify written test and interview as specified by individual Department /Schools.

2.A.2 Financial Assistance

Financial assistance in the form of 'Institute Assistantships' is available to the students admitted to Ph.D. programmes under **Full Time regular registration category**. The applicants with master's degree must qualify the written test and interview conducted by the respective Department/School. The applicants with bachelor's degree must have qualified GATE/GPAT and qualify the written test and interview conducted by the respective Department/School.

Presently the Assistantships @ Rs. 37,000/- per month is available to full time students admitted to the Ph.D. programmes.

A student shall be assigned duties up to eight hours per week by the Departments / Schools to avail the Teaching Assistantship. The renewal of assistantship is contingent on the student's satisfactory performance in the academic programme and in the discharge of assistantship duties on a semester to semester basis.

For the Odd Semester of Session 2026-27, the Teaching Assistantships (Institute Assistantship) of the Institute are available for Ph.D. programmes in each department/school as given in **Table 2C of Annexure-II**. The number of available Institute Assistantship should not be considered as available seats. Applicants who are either of sponsored registration category or who are already awarded fellowship by external agencies or Part time registration category or external registration category can submit their applications for admission in departments/schools even if there is no Institute Assistantship available.

No student shall be admitted to Full time Regular Registration Category without Institute Assistantship or National-level Scholarships/Fellowships. No student can get financial assistance from more than one source at a time.

2.A.3 Admission of Candidates having National-level Scholarships

There is a provision for admission to Ph.D. programmes for candidates who fulfill the eligibility criteria for the respective programmes and also have qualified in any of the national level JRF/SRF tests conducted by UGC, CSIR, Department of Biotechnology, Indian Council of Medical Research or DST-INSPIRE fellowship or Dr. K.S. Krishnan Fellowship of DAE, etc.

Applicants must have requisite qualification with minimum marks/CPI (see **Sec. 2.A.1 and Table 2A Annexure-II**). Such candidates may be offered admission after an interview as and when they apply in Departments/Schools where they are eligible. They will be recommended by DPGC to register for the programme at the next available semester. Such candidates who are applying for admission in response to this advertisement for the current session will go through similar process of selection as above.

2.A.4 Admission for candidates who come through QIP Programme

The Institute is now recognized as Major QIP Center of AICTE for research in all disciplines available. For a detailed procedure applicants should contact the AICTE.

2.B. Full Time External Registration category

A candidate working in an external R&D organization or in an industry recognized by the Institute (the list of recognized external R&D organizations and industries is given in **Annexure – III**), which is equipped with necessary research and library facilities can also apply for admission to Ph.D. programmes, provided he/she satisfies the eligibility criteria laid down for the programme concerned

(see **Sec. 2.A.1 and Table 2A Annexure-II**). Such a candidate must show satisfactory performance in the interview, must be sponsored by his/her employer and must have been in employment with the sponsoring organization for at least two years at the time of admission.

The employer must undertake to pay full salary to the candidate and relieve him/her from the duty to enable the candidate to stay on the campus and to complete the course work requirements. Further, the requirement of earning credits through course work may be waived off by Dean (Academic Affairs) on the recommendation of DPGC provided the candidate has M.Tech./M.Pharm. as qualifying degree from an IIT.

The candidate should submit a certificate (See Form IV of the Application Form) obtained from his/her organization that the research facilities of his/her organization would be made available to him/her for carrying out research. He/she should also provide the bio-data of the prospective supervisor along with his/her consent, who would be supervising the candidate's work at his/her organization.

[N.B. Letter of appointment and Form – 16 for two years of service is required from the employer at the time of interview.]

In addition, an R&D organization/industry or a research area in the specific organization may be recognised by the Institute as per the following procedure. On the recommendation of the DPGC, the Dean (Academic Affairs) will constitute a committee to assess and approve an R & D organization/industry for admission of sponsored candidates to carry out Ph.D. research in a specified area. The committee may, upon inspection, also approve all the areas in which R & D activities are going on in that organization.

An application for admission from a candidate working in the approved organization will be considered only if he/she wishes to work in the approved area.

2.C. Full Time Sponsored Registration Category

A candidate who is sponsored by a teaching institution or by an R&D organization or by an industry can also apply for admission to Ph.D. programmes, provided he/she satisfies the eligibility criteria laid down for the programme concerned (see **Sec. 2.A.1 and Table 2A Annexure-II**). He/she must have been in service of the sponsoring institution/organization for at least two years at the time of admission. The sponsoring organization must specifically undertake to provide full salary to the candidate and to relieve him/her to pursue the programme for its full duration (**See Form I of the Application Form**). Such candidates have to complete the requirements of the programme by **staying on-campus for the full duration of the programme**.

[N.B. Letter of appointment and Form – 16 issued by the employer for two years of service is required at the time of written test / interview. In addition, the candidate must submit an undertaking that he/she will continue to submit Form – 16 for the subsequent years till he/she completes the programme.]

2.D.1 Part-time Internal Category

The Institute offers part-time Ph.D. programmes for permanent staff and faculty members of the Institute, provided they satisfy the eligibility criteria laid down for the programme concerned (see **Sec. 2.A.1 and Table 2A Annexure-II**). Such a candidate should submit a no-objection certificate from the Head of the Department/Coordinator of School as the case may be (See Form I & II of the Application Form) as applicable. They will be required to attend to normal duties assigned to them by the Department/School.

2.D.2 Institute Project Category

The Institute offers Ph.D. programmes for research assistants/JRFs/SRFs working in an externally funded research project running in the Institute (IITBHU), provided they satisfy the eligibility criteria laid down for the programme concerned (see **Sec. 2.A.1 and Table 2A Annexure-II**). Such a candidate should submit a no-objection certificate from the Principal Investigator (See Form I & II of the Application Form). They will be required to attend to normal duties assigned to them by the Principal Investigator of the research project.

2.D.3 Part-time External Category

The Institute offers part time Ph.D. Programme also to a professionally employed person, who pursues the programme while continuing the duties of his/her service provided the sponsoring institution/organization and engaged in broad areas of Ph.D. Programme applied. He/she must be a regular employee of the sponsoring organization/institution for at least two years. No objection certificate from the Head of the Institution /organization must be enclosed with the application. The candidate must satisfy the eligibility criteria laid down for the programme concerned (see Sec. 2.A.1 and Table 2A Annexure-II).

[N.B.: Letter of appointment and Form 16 issued by the employer for two years of service is required at the time of written test and interview. In addition, the candidate must submit an undertaking that he/she shall continue to submit Form 16 for the subsequent years till he/she completes the programme]

2.D.4 Part-time Executive Category

The Institute offers part time executive Ph.D. Programme to persons from Industry/Academia/Government with Bachelor / Master's Degree in Engineering & Technology/ Sciences/ Medical Sciences/ Nursing/ Medical Technology/ Agriculture/ Management/ Pharmacy/ Architecture/ Humanities etc, who pursues the programme while continuing the duties of his/her service. He/she must be a regular employee of the Industry/Academia/Government for at least five years for candidates with Master's degree and seven years for candidates with Bachelor's degree. No objection certificate from the Head of the organization must be enclosed with the application. The candidate must satisfy the eligibility criteria laid down for the programme concerned (see Sec. 2.A.1).

Under the executive Ph.D. programme, the admitted student(s) may be allowed to complete his/her course credit requirements using online resources through the NPTEL/SWAYAM portal on the recommendation of DPGC or attend the classes of the Institute in Hybrid mode. Such student(s) will be required to report physically in the Institute for at least seven days per semester. The DPGC may waive coursework requirements for the eligible candidate(s). The minimum duration for part time Executive Ph.D. programme is three years.

[N.B.: Letter of appointment and Form 16 issued by the employer for five years of service is required at the time of written test and interview. In addition, the candidate must submit an undertaking that he/she shall continue to submit Form 16 for the subsequent years till he/she completes the programme]

2.E. Registration of RAV (National Academy of Ayurveda) seats under sponsored category

The Institute offers minimum two seats under Sponsored category for Ph.D. Programme in every semester through National Academy of Ayurveda, Ministry of Ayush under MoU between IIT(BHU) and Rashtriya Ayurveda Vidyapeeth (National Academy of Ayurvea), Ministry of Ayush, Govt. of India. IIT(BHU) will admit Ph.D. Scholar in the field of Ayurveda through contemporary sciences. The candidate must satisfy the eligibility criteria laid down for the programme concerned (see 2.A.1 and Table 2A Annexure-II).

2.F. Registration of MoRTH officials under Civil Engineering Department

The Institute offers three seats (supernumerary) for Ph.D. Programme in this semester in Civil Engineering Department for MoRTH officials under MoU between IIT(BHU) and Ministry of Road Transport and Highways (MoRTH). IIT(BHU) will admit Ph.D. Scholars on the following topics:

1. Development of Codal Guidelines for Performance Based Mix Design based for Marshall Mixes (for plant produced mixes)
2. Developing Implementable Passenger Card Unit (PCU) for Field Usage and Nationwide Transferability

The candidate must satisfy the eligibility criteria laid down for the programme concerned (see 2.A.1 and Table 2A Annexure-II).

2.G. Registration of NMCG officials under Civil Engineering Department

The Institute offers seats (supernumerary) for Ph.D. Programme in this semester in Civil Engineering Department for NMCG officials under MoU between IIT(BHU) and National Mission for Clean Ganga, Ministry of Jal Shakti, Govt. of India (NMCG). IIT(BHU) will allow the officials of

NMCG/Co-PIs of the project to enroll in the Master and Ph.D. courses. After enrollment in the Ph.D., candidates can complete their course work through NPTEL/Swayam portal while discharging their duties in their organization. In some cases, the requirement of the earning credits through course work will be waived off if the candidate has M.Tech./M.Engg. as a qualifying degree from an IIT/International Institute (QS Rank within 100).

The candidate must satisfy the eligibility criteria laid down for the programme concerned (see **2.A.1 and Table 2A Annexure-II**).

3. SELECTION CRITERIA

a) M.Tech./M.Pharm Programme

For Full time regular category, candidates shortlisted on the basis of GATE/GPAT Score which is valid and above the qualifying pass mark, may be selected for M.Tech./M.Pharm. programmes either on the basis of their GATE/GPAT score or written test or interview or counselling or on the basis of any combination of these as declared by the individual department/school.

For admission under other categories, requirement of qualifying GATE/GPAT is waived off and also such candidates are exempted from appearing in the written test.

b) Admission to Ph.D. Programme

1. Admission will be based on written test/ interview or combination of both of the candidates shortlisted by the Department/School concerned.
2. The following category of applicants shall be **exempted from appearing in the written test**:
 - a) External Registration Category
 - b) Sponsored Registration Category
 - c) Part-time Registration (Internal/External/Executive) Category
 - d) Candidates having National Level Scholarships
 - e) Registration of MoRTH officials under Civil Engineering Department.
 - f) Registration of NMCG officials under Civil Engineering Department.
 - g) Registration sponsored category through national Academy of Ayurveda, Ministry of Ayush.
 - h) Outstanding candidates from Premier Institutions:
 - i) Applicants who have qualifying degree from IITs with CPI of 8.00 or above (on a 10.0 point scale) will also be admitted under advertise seats of Teaching Assistantship (TA) of the concerned Department/School.
 - ii) Interview should be conducted for this type of candidates PRIOR to the conduct of Interview for remaining candidates;
 - iii) Any candidate who could not qualify in the said Interview, through this channel, is eligible to take regular selection procedure of Written Test. Since, the candidate has been interviewed once, he/she will not appear again in the interview and marks of the first interview will be considered for preparing merit list.
3. Further, if qualifying marks are specified in written test and interview a 5% relaxation will be given to SC/ST candidate. If a candidate avails such relaxation, **he/she shall not be considered for admission in general category.**
4. Upon approval of Chairman, Senate, the Head of the Department/Coordinator of the School concerned will issue admission letters to the candidates who will be required to accept the offer of admission by depositing the prescribed fee before a specified date.
5. In case a candidate does not accept the offer by paying the prescribed fee by the specified date, the offer of admission will stand withdrawn, and the admission will be offered to the candidates in the waiting list, if any, in order of merit.

3.A RESERVATIONS TO SC/ST/OBC/EWS CANDIDATES:

In each discipline, 15% seats are reserved for SC, 7.5% seats for ST, 27% seats for OBC (non creamy layer) and 10% seats for EWS candidates. SC/ST/OBC/EWS candidates must also satisfy the eligibility requirements for admission. However, while considering their cases, only suitability for the

programme is ensured and the SC/ST/OBC/EWS candidates are not compared with those belonging to other categories.

Further, a relaxation of 5% marks or 0.5 CPI (on a 10 point scale) shall be admissible on the marks obtained in qualifying degree for SC and ST candidates in the admission.

The SC/ST/OBC/EWS certificates must be produced at the time of written test / interview on the prescribed form. In case of OBC (non-creamy layer) & Economically Weaker Section (EWS) the certificate should not be dated prior to six months **from 1st February, 2026**. The following authorities are empowered to issue the SC/ST/OBC/EWS certificate:

- (a) District Magistrate/ Additional District Magistrate/ Collector/ Deputy Commissioner/ Addl. Deputy Commissioner/ Deputy Collector/ First Class Stipendiary Magistrate/ City Magistrate/ Sub-Divisional Magistrate/ Taluka Magistrate/ Executive Magistrate/ Extra Assistant Commissioner.
- (b) Chief Presidency Magistrate/ Additional Chief Presidency Magistrate/ Presidency Magistrate.
- (c) Revenue Officer not below the rank of Tehsildar.
- (d) Sub-Divisional Officer of the area where the candidate and/or his family normally resides.
- (e) Administrator/ Secretary to the Administrator/ Development Officer (Lakshadweep Islands).

3.B RESERVATIONS TO PHYSICALLY CHALLENGED (PC) CANDIDATES

In total, 5% reservation (horizontal) shall apply for candidates with physical disability as per Govt. of India norms (minimum 40% disability; attested copy of the certificate from District CMO must be furnished). Such candidates must satisfy the eligibility requirements for admission. However, while considering these applications, only suitability for the programme is ensured and they are not compared with those belonging to other categories. The candidates called for counseling may also be examined by a Medical Board constituted by the Indian Institute of Technology (BHU).

Further, a relaxation of 5% marks or 0.5 CPI (on a 10 point scale) shall be admissible on the marks obtained in qualifying degree for PC candidates in the admission.

4. ADMISSION OF FOREIGN NATIONALS

Admissions to Ph.D. Programmes are available for Indian nationals residing abroad (INRA) and foreign nationals as per details given below.

1. Indian Nationals Residing Abroad (INRA): Candidates must have been residing abroad continuously for at least one year at the time of applying for admission. Their applications may be processed by the departments/schools as and when they are received or according to any schedule convenient to the departments/schools. The applications should be scrutinized to make sure that, in terms of qualifications; they are comparable with the candidates admitted in the general category.
2. The applications of foreign nationals, who are sponsored by the Indian Council of Cultural Relations (ICCR), will be scrutinized by the departments/schools concerned to assess their suitability for admission to the programme. The recommendations of the Department/School will be sent to the Chairman, Senate through the Dean (Academic Affairs) for approval.
3. Candidates belonging to the above two categories should satisfy the eligibility conditions and should have qualified GRE/TOFEL/IELTS/or any other equivalent examination.

Note: 1. Mere fulfillment of eligibility criteria does not guarantee admission in a programme. The candidates' performance in the written test and interview should be at the levels expected for the respective programmes.

2. Further details on Ph.D. programme is available on the official website www.iitbhu.ac.in.

3. Hostel accommodation will be provided subject to availability of rooms in hostels.

4. HRA will not be provided.

Table 1A: Requisite Qualifications for M.Tech./M.Pharm. Programmes

Most of the Bachelor's and Master's degrees that are being awarded in the disciplines/areas in the country and abroad are listed in the following. However, a candidate possessing a degree that does not exactly conform to the degrees listed below may be considered for admission, based on the performance in written test / interview and provided that the interview /admission committee, upon scrutiny of the list of courses done and credits earned by the candidate, finds that the degree concerned is at par with those listed below.

A. Programmes without specializations

Department/ School offering the Programme	Discipline	Eligibility
Department of Ceramic Engineering	Ceramic Engineering	B.Tech. or an equivalent degree in Ceramic/ Civil/ Electronics/ Electrical/ Mechanical/ Metallurgical Engg./ Chemical Engg. and Technology/Materials Science & Technology/ Silicate Technology or M.Sc. Physics (with special papers in Solid State/ Electronics) or Electronics or Chemistry (with special papers in Physical/ Inorganic/ Solid State Chemistry) provided the candidate has passed B.Sc./ B.Sc.(Hons.) Examination with Physics, Chemistry and Mathematics
Department of Chemical Engineering & Technology	Chemical Engineering	B.Tech. or an equivalent degree in Chemical Engg. or Bio-Chemical Engg. /Electrochemical Engg. /Energy Engg. /Environmental Engg. /Food Processing Engg./Petrochemical Engg./Petroleum Engg./ Chemical Technology/Oil Technology/Paint Technology/ Petroleum Technology/Plastic Technology/Polymer Technology/Bio-Technology/ Food Technology with a valid GATE score in Chemical Engineering.

B. Programmes with specializations

Department/ School offering the Programme	Discipline	Specialization	Eligibility
Department of Civil Engineering	Civil Engineering	a) Hydraulics and Water Resources Engineering b) Geotechnical Engineering c) Structural Engineering d) Environmental Engineering e) Transportation Engineering	B.Tech./B.E. in Civil Engineering or a degree in an equivalent branch of engineering/technology. & GATE qualification in Civil Engg. or allied discipline. Executive M.Tech.: B.Tech./B.E. or an equivalent degree in engineering.
		f) Geoinformatics Engineering	B.Tech./B.E. in any branch/B.Arch. or B.Plan/M.Sc. in Geography/MCA & GATE in any of the Civil Engineering /Geomatics Engineering/ Computer Engineering/ Architecture and Planning.
		g) Engineering Geosciences	B.Tech./B.E. in Civil Engg./Mining Engg./ Petroleum Engg./ or a degree in an equivalent branch of engineering/ technology. OR M.Sc. in Geology/Geophysics & GATE qualification in Civil Engg./ Geology/Geophysics or allied discipline.

Department of Computer Science and Engineering	Computer Science and Engineering	a) Artificial Intelligence (AI) b) Internet of Things (IoT)	B.Tech. or B.E. degree in Computer Tech./Information Tech./Data Science and Artificial Intelligence (DA)/ All related subjects of Computer Engineering at B.Tech. level.
Department of Mechanical Engineering	Mechanical Engineering	a) Machine Design b) Thermal & Fluid Engineering c) Production Engineering	B.Tech. or an equivalent degree in the respective branch of engineering.
Department of Metallurgical Engineering	Metallurgical Engineering	a) Extractive Metallurgy b) Alloy Technology	B.Tech. or an equivalent degree in Metallurgical Engg., Materials Science/Engineering, Mineral/Chemical/Ceramic /Mechanical Engg., Chemical Tech. or M.Sc. (Physics/ Chemistry) with specialization in Solid State Physics, Physical/ Inorganic Chemistry provided the candidate passed B.Sc./ B.Sc. (Hons.) Examination with Mathematics as one of the subject at undergraduate level
Department of Mining Engineering	Mining Engineering	a) Mine Environment b) Rock Mechanics c) Mine Planning	B.Tech. or an equivalent degree in the respective branch of engineering.
Department of Electrical Engineering	Electrical Engineering	a) Power Systems b) Electrical Machines and Drives	B. Tech. or an equivalent degree in Electrical Engg. with a valid GATE score in Electrical Engg.
		c) Control Systems	B. Tech. or an equivalent degree in Electrical/ Electronics/ Control Systems/ Instrumentation Engg. with a valid GATE score in Electrical / Electronics/ Instrumentation Engg.
		d) Power Electronics	B. Tech. or an equivalent degree in Electrical/ Electronics Engg. with a valid GATE score in Electrical / Electronics Engg.
Department of Electronics Engineering	Electronics Engineering	a) RF and Microwave Engg. b) Communication System Engg. c) Microelectronics d) Digital Systems Engg. e) VLSI Architecture & Chip Design	B.Tech or equivalent degree in Electronics Engg. or Electrical Engg. or Instrumentation Engg. or Computer Science Engg. or Information Technology with valid GATE score in Electronics and Communication Engg.
Department of Pharmaceutical Engineering and Technology	Pharmacy	a) Pharmaceutics b) Pharmaceutical Chemistry c) Pharmacology d) Pharmacognosy	B.Pharm. or an equivalent degree in Pharmacy with valid GPAT score. OR B.Tech. in Pharmaceutical Engineering & Technology or equivalent degree with valid GPAT/GATE score.

C. Inter-disciplinary programmes

Department/ School offering the Programme	Discipline	Eligibility
Department of Civil Engineering	Tunneling and Underground Space Engineering	Regular: B.Tech./B.E. or an equivalent degree in the Civil Engineering/ Allied Engineering with valid GATE Score. Executive M.Tech.: B.Tech./B.E. or an equivalent degree in Engineering.

School of N.C. Jain Decision Sciences and Engineering	Decision Sciences and Engineering	B.Tech. or an equivalent degree in any branch of engineering
Department of Electrical Engineering	Systems Engineering	B.Tech. or an equivalent degree in any branch of engineering with a valid GATE score.
School of Materials Science and Technology	Materials Science and Technology	B.Tech. or an equivalent degree in Ceramic/ Chemical/ Civil/ Electrical/ Electronics/ Polymer/ Plastic Technology/ Materials Technology/ Nanotechnology/ Mechanical / Metallurgical Engineering OR M.Sc. degree in Chemical Science/ Materials Science/ Physical Science, Nanoscience and Nanotechnology, provided the candidate has obtained a Bachelor's Degree in Physics/ Mathematics and Computer Science/ Statistics.
School of Biochemical Engineering	Biochemical Engineering	B.Pharm.*/B.Tech. or equivalent degree in Biochemical Engineering, Biotechnology#, Chemical Engineering/Tech., Food Tech./ Engg., Bioinformatics OR M.Sc. degree in Biotechnology#, Biochemistry, Bioinformatics, Microbiology# and Chemistry#. * See the eligibility criteria; #with all specializations
School of Biomedical Engineering	Biomedical Engineering	B.Tech. or an equivalent degree in Biomedical/ Bioengineering/ Ceramic/ Biotechnology/ Chemical/ Computer Science/ Electrical/ Electronics/ Instrumentation/ Mechanical Engg./Metallurgical Engg./Polymer Science and Engg./ Materials Science OR M.Sc. degree in Physics/ Biotechnology/ Chemistry/ Life Sciences OR BDS/MBBS.
	Medical Devices	B.Tech. or an equivalent degree in Biomedical/ Bioengineering/ Ceramic/ Biotechnology/ Chemical/ Computer Science/ Electrical/ Electronics/ Instrumentation/ Mechanical Engg./Metallurgical Engg./Polymer Science and Engg./ Materials Science OR M.Sc. degree in Physics OR BDS/MBBS (with compulsory mathematics at higher secondary level).

- NOTE:**
1. Candidates desirous of applying for admission to M.Tech. Programmes in different departments/schools as well as M.Pharm. programme are required to fill the primary and additional programme/discipline/specialization if any, in the order of their preference as per the instructions provided in the home page of admission portal.
 2. Not more than 40% of the total seats in the Departments, wherever candidates from allied disciplines are declared eligible for admission, shall be open for any one allied discipline. However, preference will be given for eligible candidates from the discipline based on their performance in the written test / interview.
 3. Not more than 40% of the total seats in interdisciplinary programmes in Schools will be open for any ONE branch of Engineering or Science.

**Table 1B : Number of Seats Available for
M.Tech. / M.Pharm. Programmes**

Discipline	Number of Available Seats					
	General	SC	ST	OBC	EWS	Total*
Ceramic Engineering	8	3	1	5	2	19
Chemical Engineering	25	9	4	15	6	59
Civil Engineering	30	11	6	20	7	74
Tunneling and Underground Space Engineering**	6	2	1	4	2	15
Computer Science and Engineering	12	5	2	8	3	30
Electrical Engineering	25	9	4	15	6	59
Systems Engineering	5	2	1	3	1	12
Electronics Engineering	22	8	4	15	5	54
Mechanical Engineering	25	9	4	15	6	59
Decision Sciences and Engineering	5	2	1	3	1	12
Metallurgical Engineering	18	7	3	12	4	44
Mining Engineering	15	5	3	9	4	36
Biochemical Engineering	5	2	1	3	1	12
Biomedical Engineering	5	2	1	3	1	12
Medical Devices***	8	3	2	5	2	20
Materials Science & Technology	10	4	2	6	2	24
Pharmacy	20	7	4	13	5	49

*5% seats reserved for physically challenged candidates, which is not added in total number of seats, as provision for the physically challenged candidate will be made from within the respective category.

** Interdisciplinary M.Tech. program of Civil Engineering Department.

*** M.Tech. in Medical Devices program of Biomedical Engineering

Annexure-II

Table 2A : Departments/Schools/Disciplines and Allied Disciplines for Ph.D. Programmes.

Most of the Bachelor's and Master's degrees that are being awarded in the disciplines in the country and abroad are listed in the following. However, a candidate possessing degree(s) that do not exactly conform to the degree(s) listed below may be considered for admission, based on the performance in written test / interview and provided that the interview / admission committee (DPGC), upon scrutiny of the list of courses done and credits earned by the candidate, finds that the degree concerned is at par with those listed below.

Departments/ Schools offering the Programme	Discipline	Allied Disciplines
Department of Architecture, Planning and Design	Architecture, Planning and Design	Master's/Bachelor's degree in any Engineering discipline; Master's/Bachelor's degree in any Science discipline or equivalent.
Department of Ceramic Engineering	Ceramic Engineering	(i) Bachelor's/ Master's degree of Engineering in Ceramics/ Electronics/Electrical/ Mechanical/ Metallurgical/ Chemical Engg. & Tech./ Materials Science & Technology/ Silicate Technology/ Nano Technology/ Bio Medical/ Bio Chemical/ Bio Technology. (ii) Master's Degree of Materials Science/Chemistry/Applied Chemistry/Bio Chemistry/ Physics/ Applied Physics/ Nano Science/ Medical Science/ Materials Engg. GATE/CSIR-UGC NET(JRF) qualified in respective discipline or equivalent.
Department of Chemical Engineering & Technology	Chemical Engineering	i) B.Tech. or equivalent degree in any branch of Engineering/Technology with GATE Score. ii) ME/M.Tech. or equivalent degree in any branch of Engineering and Technology. iii) Master degree in Physics/Chemistry/Biochemistry/ Mathematics/ Statistics/ Botany/ Zoology/ Environmental Science/Biotechnology/ Industrial Chemistry/ Microbiology/ Nanotechnology/ Computer Science/ Materials Science with GATE or CSIR/UGC-NET-JRF or DBT-JRF or ICMR-JRF. iv) Nano Science/Computer Science/Materials Science in M.Sc. Level with GATE or CSIR/UGC-NET-JRF.
Department of Civil Engineering	Civil Engineering	Environmental Engineering Bachelor's degree (B.Tech./B.E.) in Civil Engg./Environmental Engg. or equivalent branch & M.E./M.Tech. in Chemical/ Environmental/ Biotechnology/ Remote Sensing/Climate Change/ Agricultural Engineering. & GATE qualification in Civil Engg. or allied discipline. Geotechnical Engineering Bachelor's degree (B.Tech./B.E.) in Construction Technology and Management & Master's degree in Geotechnical/ Transportation/ Structural/ Environmental Engg./Hydraulics and Water Resources Engg./Applied Mechanics/ Construction Technology and Management/Agricultural Engineering & GATE qualification in Civil Engg. or allied discipline. Structural Engineering Bachelor's degree (B.Tech./B.E.) in Construction Technology and Management/Aerospace Engineering/B.Arch./B.Pharm/B.Plan. & Master's degree in Structural/ Applied Mechanics/ Construction Technology and Management / Aerospace Engineering/Novel Architecture/Offshore Structures/Mechanical Engg./Ceramic Engg./ Materials Science & Technology

Departments/ Schools offering the Programme	Discipline	Allied Disciplines
		<p>OR</p> <p>Master's degree in Urban Planning/ Disaster Mitigation/M.Arch. & GATE qualification in Civil Engineering or applied discipline.</p> <p>Hydraulic and Water Resources Engineering Bachelor's degree (B.Tech./B.E.) in Water Resources/ Agriculture Engg. & Master's degree (M.Tech./ME) in Hydraulics/ Hydrology/ Water Resources Management/ Environmental/ Remote Sensing and GIS/ Hydrogeology/ Climate Change/Agricultural Engineering/ Mechanical Engg. & GATE qualification in Civil Engg. or allied discipline.</p> <p>Transportation Engineering Bachelor's degree (B.Tech./B.E.) in B.Arch./B.Plan. or equivalent branch & Master's degree (M.Tech./M.E.) in Transportation/ Highway Engineering/Construction Technology/Infrastructure/Structure/ Geotech/Environmental Engg. or similar specializations</p> <p>OR</p> <p>Master's Degree in Urban Transportation/ Transportation Planning/ M. Planning/M.Arch. & GATE qualification in Civil Engg. or allied discipline.</p> <p>Geoinformatics Engineering B.E./B.Tech. in Geomatics/Geoinformatics/ Computer Engg./ Electronics Engg. or Equivalent branch of Engg./B.Arch., B.Plan. or M.Sc. in Geography, Computer Science, MCA OR M.Tech. in Geomatics/Geoinformatics/ Remote Sensing or equivalent & NET/JRF/GATE in Civil Engineering/Geomatics Engineering/ Computer Engineering/ Architecture and Planning/ Geography/Electronics</p> <p>Engineering Geoscience Master's degree (M.Tech./M.E.) in Geo-Sciences/M.Tech. in Geology/Rock Mechanics or M.Sc./M.Sc.(Tech.) in Geology/ Geophysics/Rock Mechanics & NET/JRF/GATE in respective branch of Civil Engineering/ Geophysics/ Geology.</p>
Department of Computer Science & Engineering	Computer Science & Engineering	<p>B.Tech./B.E./M.Tech./ M.E. degree in Computer Science/ Computer Technology /Information Technology/All subjects related to Computer Engineering/ Data Science and Artificial Intelligence(DA)/ Artificial Intelligence/ Maths & Computing.</p> <p>OR</p> <p><u>M.Sc.</u> (Computer Science)/MCA/ Equivalent Master's Degree.</p> <p>The candidates holding any of the above criteria must have qualified GATE in CSIT/DA.</p>
	Jay Chaudhry Software Innovation Centre*	M.Sc./B.E./B.Tech./M.E./M.Tech. in any branch.
* 2 Seats under Project "Jay Chaudhry Software Innovation Centre" in Computer Science and Engineering Department.		
Department of Electrical Engineering	Electrical Engineering	B.Tech./M.Tech. or an equivalent degree in Electronics/Instrumentation/ Control Engineering.
	Systems Engineering	B.Tech./M.Tech. or an equivalent degree in any Branch of Engineering.

Departments/ Schools offering the Programme	Discipline	Allied Disciplines
Department of Electronics Engineering	Electronics Engineering	<p>(i) B.Tech AND M.Tech in Electronics Engg./ Electrical Engg OR</p> <p>(ii) B.Tech in Instrumentation Engg./Computer Science Engg./ Information Technology AND M.Tech in any of the specified areas/Discipline OR</p> <p>(iii) M.Sc. (Electronics) AND M.Tech degree in the specified areas/Discipline</p> <p>(iv) B.Tech* in Electrical Engg./Electronics Engg./ Instrumentation Engg./Computer Science Engg./ Information Technology</p> <p>* marks \geq 75%</p> <p>Specified areas/Discipline: Digital Communication Systems, Information and Coding Theory, Telecom Networks, Mobile and Wireless Communication Systems, Digital Systems and Microprocessors, Digital Signal and Image Processing, Computer Vision and Robotics, Signal and Systems Theory, Control Systems, Fuzzy Logic, Neural Networks and their applications, Power Electronics, Microelectronics and VLSI Systems, Semiconductor Device Modelling and Simulation, Solid State Devices, Organic Electronics, Transparent Semiconductors and Photovoltaics, Sensors and Pattern Recognition, Electronic Instrumentation and Virtual Instrumentation, Electromagnetics, RF Engineering and Microwaves, Antennas, Optoelectronics and Optical Communication, Photonic Networks and Systems, Information Technology, Embedded System, Applied Electronics, etc</p>
Department of Humanistic Studies	Humanities and Social Sciences	<p>Master's/Bachelor's degree in any Engineering discipline;</p> <p>Master's degree in any Science discipline;</p> <p>4-year – Bachelor's Science degree.</p>
Department of Mechanical Engineering	Mechanical Engineering	<p>M.Sc./M.S. in Physical Sciences with background appropriate to Thermal & Fluid / Machine Design/Production. OR</p> <p>Bachelor's/Master's degree in any branch of Engineering related to the Thermal & Fluid/Machine Design/ Production and Manufacturing area.</p>
Department of Metallurgical Engineering	Metallurgical Engineering	<p>Bachelor's / Master's degree in Mechanical / Chemical / Production Engg./Manufacturing Engg./Mineral Engg./ Ceramic Engg.</p> <p>Master's degree in Materials Science / Engg./ Technology</p> <p>Master's degree in Physical Sciences (Solid State Physics)/Chemical Sciences (Inorganic / Physical Chemistry/ Industrial Chemistry)/ Biological Sciences/Geology with Mathematics as a subject at Bachelor's level.</p>
Department of Mining Engineering	Mining Engineering	<p>Master's degree in Geology/ Geophysics/Geohydrology Mathematics/ Petroleum Geosciences /Chemistry/ Environmental Science/ Materials Science/ Botany/ Zoology/Polymer Science/ Computer Science/Earth Science/Remote Sensing and GIS</p> <p>B.Tech. in any branch of Engineering.</p> <p>M.Tech. in any Branch of Engineering.</p>
Department of Pharmaceutical Engineering and Technology	Pharmacy	<p>MS/M.Pharm./M.Tech. in Pharmacy/Pharmaceutical Sciences/ Pharmaceutics/ Pharmaceutical Chemistry/ Pharmacology/ Pharmacognosy/ Pharmaceutical Engg./ Pharmaceutical Technology/ Pharmaceutical Biotechnology/ Bioinformatics/ Biochemical Engineering/ Biomedical Engg. with graduation in Pharmacy (B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology).</p> <p>OR</p> <p>MD(Ayurveda)/ MS(Ayurveda)/M.D.(Siddha)/MD (Homeopathy)/ MD (Pharmacology)/ M.C.Sc./MDS.</p>

Departments/ Schools offering the Programme	Discipline	Allied Disciplines
		OR B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology/ MBBS/ BDS/ BAMS/ BHMS/BSMS/ BUMS/ B.V.Sc. & A.H. Applicants with bachelor's degree must have a minimum of 75% marks or 7.5 CPI (on 10.00 point scale) at the bachelor's degree level. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10.00 point scale) at bachelor degree provided the degree is form an Institution funded by the Central Government.
Department of Physics	Physics	M.Sc./M.Tech./B.S./B.Tech./ 4-year B.Sc. in Applied Physics, Engineering Physics, Bio-Physics, Chemical Engg., Electronics Engg., Materials Science, Ceramic Engg., Metallurgical Engg., Electrical Engg., Bio-Informatics, Geology, Geophysics, Geomatics and Geoinformatics, Earth Sciences, Environmental Science, Computer Science, Computer Engg., Mechanical Engg., Mathematics, Chemistry, Remote Sensing, Astrophysics, Space Physics, Applied Optics, Atmospheric Physics, Fibre Optics & Photonics, Nanotechnology and Biotechnology, Life Sciences, Biomedical Engg.
Department of Chemistry	Chemistry	M.Sc./M.Tech. in Chemistry/ Industrial Chemistry/ Applied Chemistry/ Biochemistry/ Microbiology/ Medicinal Chemistry/ Biotechnology/ Materials Science and Technology/ Environmental Sciences/ Nano- Technology/ Physics/ Energy Science with a chemistry as a subject in bachelor degree/ BA-MS & BS-MS (Ayurveda & Siddha Medicine).
Department of Mathematical Sciences	Mathematical Sciences	Master's degree in Statistics/ Computer Science/ Computer Engineering, with Mathematics as a subject at Bachelor's level. Bachelor's degree (B.Tech./B.E.) in Mathematics and Computing/ Computer Engineering/Computer Science.
School of Biochemical Engineering	Biochemical Engineering	1) B.E./B.Tech./M.E./M.Tech./ Dual degree or equivalent in: Biochemical Engineering, Biotechnology#, Biosciences#, Bioengineering#, Biomedical Engg./Tech., Bioinformatics, Chemical Engg./ Technology#, Environmental Engg./Tech., Food Tech./ Engg., Genetic Engineering, Nanotechnology#, Materials Science#, Polymer Science/ Engg./Technology#, Paper & Pulp Engg./Technology#, Textile Engg./Handloom Technology#, Agricultural Science/Engg./Technology#, Computational Biology#, Systems Biology#, Computatinoal & Integrative Sciences#, Data Science/ AI. 2) M.Sc./M.S./Integrated Master's in: Biotechnology#, Microbiology#, Chemistry#, Genetics#, Biochemistry#, Bioinformatics#, Biomedical Science#, Food Science#, Molecular Biology#, Environmental Science/Technology#, Forensic Sciences#, Mathematics and Computing. Zoology/Animal Sciences#, Life Sciences & Allied Branches#, Computational Biology#, Chemical Technology#, Computational Biology#, Systems Biology#, Data Sciences/AI (bio-related)#, Computational & Integrative Sciences. 3) B.Pharm./M.Pharm. in all branches#. 4) MBBS/BDS/BAMS/MS/MD – all disciplines included. # All allied branches.
School of Biomedical Engineering	Biomedical Engineering	B.Tech./M.Tech. degree in Bioengineering / Biomedical / Electrical Engineering / Electronics Engineering / Instrumentation Engineering / Mechanical Engineering/ Computer Engineering/ Materials Science and Technology/ Chemical Engineering/ Biotechnology/ Nanotechnology. M.Pharm./M.Sc./M.Tech. in Pharmacy. M.Sc./M.Tech. in Statistics, Mathematics. M.Sc. degree in Physics/ Chemistry/ Polymer Sciences/ Biochemistry/ Life Sciences / Biotechnology / Electronics / Instrumentation.

Departments/ Schools offering the Programme	Discipline	Allied Disciplines
		Master's degree in Physiotherapy. BDS / MBBS.
School of Materials Science & Technology	Materials Science & Technology	Master's degree in Physical Sciences, Chemical Sciences, Engineering Sciences, Nanoscience, and Nanotechnology. Bachelor's / Master's degree in Materials Science and Engineering/Metallurgical Engineering/ Mechanical Engineering/ Electronics and Communication Engineering/ Electrical Engineering/ Polymer Science and Engineering/ Nanoscience and Nanotechnology. Master's degree in Biotechnology/Life Sciences.
School of N.C. Jain Decision Sciences and Engineering	Decision Sciences and Engineering	Bachelor's degree in any branch of Engineering and Master's degree in any branch of Engineering/ Management. OR Bachelor's degree in any discipline and MBA in Operations Management, Business Analytics, or Finance of related allied discipline with valid NET-JRF or any national level scholarship. OR Bachelor's degree in any discipline and Master's degree in Computer Science, Mathematics, Statistics, Decision Sciences, Ergonomics or human factors with valid NET-JRF or any national level scholarship.

Table 2B : Discipline-wise Eligibility & Research Areas for Ph.D. Programmes.

The discipline-wise the Eligibility for Admission (over and above the minimum eligibility criteria written in sec. 2.A.1) and Research Areas in the Ph.D. programmes for the session 2026-27 are listed below.

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
Architecture, Planning and Design	<p>Specialization: Architecture Planning and Design</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1):</p> <p>a) Applicants with M.Arch. or M.Plan. or M.Des. or in an allied discipline/area must have marks/ with a minimum CPI of 7.00 on a 10.0 point scale (or 70% marks) in the qualifying degree. NET/JRF/GATE in Architecture Planning, Civil Engineering, Geomatics Engineering, Geography and allied discipline. Master's Degree/ M.Tech / M.E. / M.Pharm. / M.S. degree with CGPA/CPI more than 7.0 (on a 10.0 point scale) or equivalent from Indian(IITs/NITs/CFTIs/State funded universities (top NIRF 100) or Foreign (QS Ranking)Institutions/Universities may be exempted from the requirement of GATE / GPAT qualification for admission to Ph.D. programs under Teaching assistantship Category.</p> <p>b) Applicants with B.Arch., B.Plan. or B.Des. or in an allied discipline/area must have a minimum of 75% marks or 7.50 CPI (on a 10.0 point scale) at the bachelor's degree level from an Institution funded by the Central Government. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10 point scale) at bachelor degree provide the degree is from an Institution funded by the Central Government.</p> <p>Research Areas and their description: Architecture: Climate-Responsive Architectural Design, Sustainable Architecture, Resilient Housing, Post-Disaster Reconstruction, Multi-Hazard Building Retrofitting, Bioclimatic Architecture, Biophilic Architecture, Indoor Environmental Quality, Building Health, Biometeorology, Human-Building Interaction, Advanced Energy Technologies for Buildings, Advanced Water Technologies for Buildings, Net-Zero and Low-Carbon Buildings, Futuristic Façade and Envelope Technologies, Sustainable Building Materials, Constructability, Frugal Engineering in Building Design, Building Information Modelling, Digital Twins, Building Performance Simulation, Virtual Reality and Immersive Design Communication, Evidence-Based Architectural Design, Inclusive and Human-Centric Building Design, Vernacular Architecture, Sacred Architecture, Heritage Buildings, Adaptive Reuse, Conservation-Oriented Architectural Design Planning: Climate-Sensitive Urban Design, Urban Sustainability, Resilience Planning, Urban Heat Island, Urban Heat Stress, Heatwave Mitigation, Climate Adaptation Planning for Cities, Blue-Green Infrastructure, Water-Sensitive Urban Planning, Landscape and Public Space Design with Microclimatic Focus, Inclusive Age-Friendly and Accessible Urban Environments, Multi-Hazard Risk-Informed Master Planning, Disaster Risk Reduction Oriented Urban Design, Smart Cities, Data-Driven Urban and Rural Planning, Spatial Decision Support Systems, Geographic Information Systems and Remote Sensing Applications, Spatial Analytics, 3D Mapping and Drone-Based Surveying, Digital City Modelling, Urban Digital Twins, Heritage-Led Urban Regeneration, Heritage and Development Interface, Hill Area Planning, Sustainable Development of Hill Settlements, Public policy, Urban Governance and Legislation.</p>
Ceramic Engineering	<p>Specialization: Ceramic Engineering</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): As per the Minimum Eligibility Criteria specified in the sec 2.A.1 of the Information Brochure 2026-27 (Odd).</p>

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	<p>Research Areas and their description:</p> <ul style="list-style-type: none"> • Bioceramics: Hydroxyapatite, Tricalcium phosphate (α-TCP, β-TCP) and biphasic calcium phosphates, Silicate, borate, and phosphate bioactive glasses, Zirconia and zirconia-based composites, Alumina and alumina–zirconia toughened ceramics for dental applications, Orthopaedic Biomaterials, Bioelectronics, Piezoelectric bioceramics for bone regeneration, Drug-loaded and stimulus-responsive bioceramics, Nanoporous Bioceramics, Bioceramic–polymer hybrid systems, Bioceramics for soft-tissue and wound healing etc. • Electrical & Electronic Ceramics: Advanced dielectric and piezoelectric materials for sensors and capacitors, flexible electronics, unconventional ferroelectrics, defects in complex oxide systems, electronic properties of materials, electro ceramics, functional nanomaterials for electronic, optoelectronic, and energy devices; electrical and electrochemical properties of nanomaterials/nano-composites etc. • Energy Materials: Ceramic electrodes, solid electrolytes, and mixed-conducting oxides for batteries, fuel cells and electrochemical devices, Inorganic photovoltaic materials (Perovskite and CIGS), Entropy Stabilized Oxides, Energy Materials, Rechargeable Battery, Fuel Cells and Renewable Energy, Solar-Thermal Energy, Thermochemical water splitting and thermoelectric, Hydrogen generations, Hydrogen Storage/Metal Hydrides etc. • Thin Films & Functional Ceramics: Thin-film deposition and characterization workflows (sputtering/sol-gel/CVD), functional coatings for sensors, protective layers and optoelectronic applications, Functionally Graded Materials, Ceramic Coatings, Functional oxide ceramics, chemical solution processing of ultrathin films, Functional Nanostructures/nano-heterostructures/nano-hybrids, 2D Graphene, 2D metal-dichalcogenides, novel nanomaterials and functional nanostructures, Size-dependent properties of Nanomaterials etc. • Quantum & Semiconducting Materials: Synthesis of doped oxide and non-oxide ceramic semiconductors, oxide semiconductors and devices, Quantum Dots, 2D materials (graphene, MoS₂), Compound semiconductors (GaAs, InP, GaN), Wide band gap materials (SiC, GaN), Micro- and nano-electronics, Quantum computing materials, Size-dependent band gap tuning etc. • Magnetic Materials: Soft and hard ceramic-based magnetic materials, Diamagnetic materials, Paramagnetic materials, Ferromagnetic materials, Antiferromagnetic materials, Ferrimagnetic materials, Piezoelectric Ceramics, Dielectric Materials, Permanent Magnet, High-frequency materials and devices etc. • Glass & Glass-Ceramics and Whitewares: Structure–property relationships in oxide glasses, Role of network formers/modifiers/intermediates, Mixed alkali and mixed alkaline earth effects, Photoluminescence glass, Laser host glasses (phosphate, tellurite, fluoride), Rare-earth doped glasses and glass-ceramics, glass-ceramics for optical, bioactive and structural applications, Transparent and opaque glass-ceramics, Functionally graded glass/ceramic systems, Ceramic colours and frits, whitewares, waste-based whitewares etc. • Structural and Advanced Ceramics: Advanced Materials Processing (sintering, additive manufacturing, and hot-pressing), Flash Assisted Processing and Densification, Transparent Conducting Oxides, Cements & building materials, Cermets, Metal-Ceramic Composites, Abrasive products, Nanomaterials Synthesis, Non-oxide ceramics, Composite Materials etc. • High-temperature Materials & Refractories: Oxide refractories (Al₂O₃, MgO, ZrO₂), non-oxide refractories (SiC, Si₃N₄, BN), Carbon-based refractories and graphite, Chromia-free and environmentally benign refractories, High-entropy ceramic refractories, Magnesia-carbon Refractories, Low-cement and ultra-low-cement castable, Fiber-reinforced and composite refractories, Recycling and reuse of spent refractories, functionally graded refractory linings, Ceramic Insulations, Ultra-High Temperature Materials etc. • Waste Utilization and Management: Industrial wastes (fly ash, slag, red mud, granite waste, glass cullet, phosphogypsum), Municipal solid waste (MSW), Agricultural and biomass waste, Construction & demolition waste, electronic

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	waste (e-waste), Mining and metallurgical waste, Hazardous and biomedical waste, Waste-derived refractory raw materials, Circular economy approaches etc.
Chemical Engineering	Specialization: Chemical Engineering
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Advance Energy Solutions, Bioscience and Technology, Catalysis and Reaction Engineering, Pollution Control Technology, Nanoscience and Technology, Renewable Energy, Soft and Active Matter and Computational Chemical Engineering.
Civil Engineering	Specialization: Transportation Engineering
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Transportation Engineering
	Specialization: Environmental Engineering
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Environmental Engineering
	Specialization: Structural Engineering
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Structural Engineering
	Specialization: Geotechnical Engineering
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Geotechnical Engineering
	Specialization: Hydraulics and Water Resources Engineering
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Hydraulics and Water Resources Engineering
Computer Science & Engineering	Specialization: Computer Science & Engineering
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Algorithms and High-Performance Computing; Applied AI/ML in Finance, Healthcare, and Energy; Artificial Intelligence; Big Data Analytics; Biomedical Data Science; Blockchain; Cancer Epidemiology; Cloud/Fog Computing; Computer Networks; Computer Vision and Pattern Recognition; Consumer Electronics; Cryptography, Security and privacy; Cyber-Physical Systems and Smart Environments; Data Mining; Data Science; Educational Technology; Edge Computing; Game Theory; Generative Modelling; Graph and Manifold Optimization; Image and Video Processing; Information Retrieval and Extraction; Intelligent IoT; LLMs; Machine Learning and Deep Learning; Machine Learning Security; Medical Imaging; Medical NLP; Multi-View Data Integration; Network and Cyber Security (Traffic Classification, Zero-Day Attacks, Network

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	Tunneling, VoIP Spam, Intrusion Detection); Ontologies and Semantic Web; Privacy-Preserving and Federated Learning; Quantum Machine Learning and Quantum Neural Networks; Recommender Systems; Reinforcement Learning; Smart Healthcare; Smart Sensing; Software Architecture and Design Patterns; Text Mining and Summarization; Trustworthy and Secure AI; UAVs; Unsupervised Learning; Vision–Language Models; Weather Analytics; Web and Social Network Mining; Wireless Communication; Wireless Sensor Networks; 5G/6G Networks; Defence Applications and Smart Agriculture domains.
Electrical Engineering	Specialization: Power Electronics
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Power Electronics and Applications.
	Specialization: Electrical Machines and Drives
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Electrical Machines and Drives, Power Electronics and Applications, Electric Vehicle Applications.
	Specialization: Control Systems
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Control Theory and Applications.
	Specialization: Power Systems
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Power System, High Voltage Engineering, Condition Monitoring and Diagnostics of Electrical Power Apparatus, Nano Dielectrics.
Systems Engineering	Specialization: Systems Engineering
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Systems Level Applications of Electrical Sciences, Electrical Engineering Materials.
Electronics Engineering	Specialization: RF and Microwave Engineering.
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: RF and Microwave Engineering
	Specialization: Communication System Engineering.
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Communication System Engineering
	Specialization: Microelectronics
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Microelectronics
	Specialization: Digital Systems Engineering
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Digital Systems Engineering
Specialization: VLSI Architecture & Chip Design	
Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.	
Research Areas and their description: VLSI Architecture & Chip Design	
Humanities and Social Sciences	Specialization: NA
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: 1. Oral and Written Traditions in India: Orality and Literacy, manuscript heritage,

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	<p>scribal cultures)</p> <p>2. Cultural Heritage of India: Food, textiles, arts and crafts, festivals, religious and ritual traditions and practices, indigenous/ traditional cultures of learning, indigenous/ traditional livelihood strategies and practices;</p> <p>3. Explorations in Ancient India: Family and the Household in Ancient India; Systems of Exchange in Ancient India; Apprenticeship in Ancient India</p> <p>4. Growth and Evolution of Higher Education Institutions in India, with special reference to:</p> <p>i. Engineering Institutions and IITs;</p> <p>ii. Higher education institutions in Varanasi</p>
Mechanical Engineering	<p>Specialization: Machine Design</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1):</p> <p>1. M.Tech./M.E. or equivalent degree in Mechanical Engineering OR in disciplines consistent with the research areas of the department OR</p> <p>2. B.Tech./B.E. or equivalent degree in Mechanical Engineering OR in disciplines consistent with the research areas of the department OR</p> <p>3. M.Sc./M.S. in Physical Sciences with background appropriate to Thermal & Fluid / Machine Design/Production/Manufacturing area.</p> <p>Research Areas and their description: Fracture behavior of fibre composite through thickness, Mechanical behavior of biocomposites; Composites, Impact and failure mechanisms, Computational Fracture Mechanics, Transient Dynamics; Nuclear graphite and Fracture Characterization; Biomechanics, Cardiovascular stent design; Tiobology; Fracture Mechanics; Composite Materials such metal matrix composite, hybrid composite and nano composite for the mechanical and tribological applications; Fatigue wear modeling, contact modeling and its relevance to wear, Reliability of MEMS Devices, Robotics (Humanoid and Drone Kinematics), Impact Dynamics and Ballistics.</p> <p>Specialization: Production Engineering</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1):</p> <p>1. M.Tech./M.E. or equivalent degree in Mechanical Engineering OR in disciplines consistent with the research areas of the department OR</p> <p>2. B.Tech./B.E. or equivalent degree in Mechanical Engineering OR in disciplines consistent with the research areas of the department OR</p> <p>3. M.Sc./M.S. in Physical Sciences with background appropriate to Thermal & Fluid / Machine Design/Production/Manufacturing area.</p> <p>Research Areas and their description: Additive manufacturing, unconventional manufacturing, Incremental Forming & Manufacturing, Metal firming, Manufacturing automation using: CAD/CAM/CAE/CE/Reverse Engg.; Tool wear condition monitoring; Materials aspect of Triobology, Composite Materials and Laser Surface Texturing; Weld metal characteristics, Thermal effects on weld metal properties, stress removal in casting.</p> <p>Specialization: Thermal and Fluid</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1):</p> <p>1. M.Tech./M.E. or equivalent degree in Mechanical Engineering OR in disciplines consistent with the research areas of the department OR</p> <p>2. B.Tech./B.E. or equivalent degree in Mechanical Engineering OR in disciplines consistent with the research areas of the department OR</p> <p>3. M.Sc./M.S. in Physical Sciences with background appropriate to Thermal &</p>

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	<p>Fluid / Machine Design/Production/Manufacturing area.</p> <p>Research Areas and their description: Thermal behavior of materials, Solar thermal, Alternate fuel, Hybrid system, Engine simulation, Multi-phase flow, Hydro and gas cyclones, Droplet/bubble dynamics, Pressure assisted atomization, Electrohydrodynamic, Aerosol generation and measurement, Particle Image Velocimetry, Heat transfer, Drying, Climate change, Design wind speed of engineering structure, Polygeneration system; Biomass gasification; Hydrogen production and storage, Pulverized coal and biomass combustion; Thermal storage, Refrigeration and Air-conditioning, Thermal ablation of localized cancer of internal organs, CFD, Battery Thermal Management, Combustion, Hydrogen engine, Atomization and Spray.</p>
Decision Sciences and Engineering	<p>Specialization: Supply Chain Management</p> <p>Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): No additional eligibility criteria.</p> <p>Research Areas and their description: Supply Chain Management, Transportation, Healthcare, Sustainability, Maritime.</p> <p>Specialization: Industrial and Management</p> <p>Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): No additional eligibility criteria.</p> <p>Research Areas and their description: Industrial Management, Consumer Behaviour/aspects, Fintech, Healthcare, Sustainability, Maritime, E-Business, Game Theory.</p> <p>Specialization: Business Analytics</p> <p>Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): No additional eligibility criteria.</p> <p>Research Areas and their description: Decision Sciences, Data Analytics, AI, ML, Fintech, E-Business, E-commerce, Economic Systems, Statistics.</p>
Metallurgical Engineering	<p>Specialization: Metallurgical Engineering</p> <p>Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): There is no additional eligibility criteria. Discipline: Bachelor's / Master's degree in Metallurgical Engineering Allied Disciplines: Bachelor's/Master's degree in Mechanical/Chemical/Production Engineering./Manufacturing Engineering./Mineral Engineering./ Ceramic Engineering Master's degree in Materials Science /Engineering./ Technology Master's degree in Physics / Chemistry / Biological Sciences / Geology with Mathematics as a subject at the Bachelor's level.</p> <p>Research Areas and their description:</p> <ol style="list-style-type: none"> 1. Physical Metallurgy & Alloy Design, Physical metallurgy of metals and alloys; phase equilibria and phase transformations; microstructure and crystallographic texture; structural and chemical characterization of materials; advanced electron microscopy, electron crystallography, tomography, microanalysis of Minerals and correlative microscopy; structure–property relationships; heat treatment of metals; ultra-fine grained and nano-structured materials; non-equilibrium processing of advanced materials; high-entropy and multicomponent materials; 2D materials, nanoarchitectonics and twistrionics; design and development of advanced steels and alloy steels; stainless steels; light metals and alloys; metallic glasses; shape memory alloys; precipitation and strengthening mechanisms; energy, electronic and magnetic materials (hard and soft); nanomaterials for SERS and biosensing; advanced structural and functional materials. Electrocatysis for energy conversion. 2. Mechanical Metallurgy, Deformation & Failure, Mechanical behaviour of materials; plastic deformation and fracture; fatigue and creep; thermomechanical processing; severe plastic deformation and superplasticity; tribology and surface engineering; erosion and wear; corrosion and prevention, corrosion-fatigue, hot corrosion and metal dusting; high-temperature deformation; component integrity and remaining life assessment; metallurgical

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	<p>failure analysis; metal additive manufacturing, Mechanical behaviour of light metals, alloys, and composites.</p> <p>3. Extractive & Process Metallurgy Extractive metallurgy of ferrous and non-ferrous metals; extraction and process optimization of critical metals and rare earth elements (REEs) from primary and secondary sources; iron and steel making; pyrometallurgy, hydrometallurgy and electrometallurgy; mineral processing and beneficiation; industrial metallurgical processes; recycling and utilization of metallurgical and electronic wastes; aluminium dross processing; industrial waste utilization; archaeo-metallurgy; sustainable and environmentally responsible metallurgical practices.</p> <p>4. Integrated Computational Materials Engineering (ICME) and Modelling Computational materials engineering encompassing ab-initio methods, density functional theory, molecular dynamics simulations, and accelerated alloy development using artificial intelligence and machine learning; computational and experimental thermodynamics; thermodynamic measurements of multicomponent alloys and systems; CALPHAD-based phase equilibria and phase diagram calculations; kinetics of phase transformations and precipitation; thermodynamics and kinetics of metallurgical processes; transport phenomena in metallurgical systems; materials modelling within the ICME framework; modelling of microstructural evolution during heat treatment, deformation, and creep; flow stress and creep strain modelling; and structure–property–processing relationships.</p>
Mining Engineering	Specialization: Rock Mechanics
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Strata control and rock mechanics Tunnelling and Underground Space Technology, Numerical Modelling, Rock Instrumentation, Slope Stability, Pillar Design, Underground Structures.
	Specialization: Reliability, Availability, Maintainability, Safety
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Occupational Health and Safety, Safety Data Analytics, Noise and Vibration effects, Ergonomics, Performance analysis of machines, Digital Twin, Machine Learning, Mine Safety, IoT.
	Specialization: Drilling and Blasting
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Rock Fragmentation, Ground Vibration, Blasting Nuances, Blast Design, Machine Learning, IoT.
	Specialization: Mine Planning
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Surface and underground mine planning, underground coal and metalliferous mining, Mine Surveying, Sustainability in Mining, NET Zero, History of Mining and Technology.
	Specialization: Mine Environment
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: Mine environmental pollution, Coal and rock characterization, Mine Fires, Underground Mine Ventilation, Mine Closure Planning, IoT, Remote Sensing and GIS, Air pollution Modelling, Socioeconomic Impacts of Mining.
Specialization: Mine Digitization and Robotics	
Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.	
Research Areas and their description: Software development for mining applications, Virtual Reality, Robotics, IoT, Machine Learning applications, UAV applications in Mining.	

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
Pharmaceutical Engineering and Technology	<p>Specialization: Pharmaceutical Chemistry</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): MS/M.Pharm./M.Tech. in Pharmacy/Pharmaceutical Sciences/Pharmaceutics/ Pharmaceutical Chemistry/ Pharmacology/Pharmacognosy/ Pharmaceutical Engg./ Pharmaceutical Technology/ Pharmaceutical Biotechnology/ Bioinformatics/ Biochemical Engineering/Biomedical Engg. with graduation in Pharmacy (B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology). OR MD(Ayurveda)/ MS(Ayurveda)/M.D.(Siddha)/MD (Homeopathy)/ MD(Pharmacology)/ M.V.Sc./MDS. OR B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology/ MBBS/BDS/ BAMS/ BHMS/BSMS/ BUMS/ B.V.Sc. & A.H. Applicants with bachelor's degree must have a minimum of 75% marks or 7.5 CPI (on 10.00 point scale) at the bachelor's degree level. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10.00 point scale) at bachelor degree provided the degree is form an Institution funded by the Central Government.</p> <p>Research Areas and their description: Ligand-based and structure/target-based design, synthesis, characterization and preclinical evaluation of new small-molecules to treat various neurological disorders (AD-Alzheimer's disease, PD-Parkinson disease, Epilepsy) Cancer, Diabetes, Pain, Tuberculosis and other infectious diseases; Rational medicinal chemistry approaches for the discovery of new lead compounds preferably acting on two or more protein targets, lead optimization to enhance pharmacokinetic and pharmacokinetic properties, assessment of quantitative structure-activity/property relationships, and formulation development of leads; AI/ML-powered computational identification of new lead compounds by structure/ligand-guided approaches and their experimental validation through high-throughput screening tools; Isolation, phytochemical and biological characterization of bioactive compounds of natural (plants/microbes) origin; Chemical synthesis and evaluation of nature-inspired and semisynthetic analogues of biological/therapeutic importance; Green chemistry, sustainable and eco-friendly chemical synthesis; Development of synthetic chemical probes for diagnostic and/or theranostics for various Neurological disorders (AD, PD), Cancer, Diabetes, etc.</p>
	<p>Specialization: Pharmaceutics</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): MS/M.Pharm./M.Tech. in Pharmacy/Pharmaceutical Sciences/Pharmaceutics/ Pharmaceutical Chemistry/ Pharmacology/Pharmacognosy/ Pharmaceutical Engg./ Pharmaceutical Technology/ Pharmaceutical Biotechnology/ Bioinformatics/ Biochemical Engineering/Biomedical Engg. with graduation in Pharmacy (B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology). OR MD(Ayurveda)/ MS(Ayurveda)/M.D.(Siddha)/MD (Homeopathy)/ MD(Pharmacology)/ M.V.Sc./MDS. OR B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology/ MBBS/BDS/ BAMS/ BHMS/BSMS/ BUMS/ B.V.Sc. & A.H. Applicants with bachelor's degree must have a minimum of 75% marks or 7.5 CPI (on 10.00 point scale) at the bachelor's degree level. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10.00 point scale) at bachelor degree provided the degree is form an Institution funded by the Central Government.</p> <p>Research Areas and their description: Rate-controlled novel drug delivery systems, focusing on the design and optimization of formulations that ensure precise and sustained drug release; Nanotechnology-based drug formulations, enabling improved solubility, targeting efficiency, and therapeutic outcomes;</p>

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	<p>Pharmacokinetics and pharmacodynamics, emphasizing the quantitative understanding of drug absorption, distribution, metabolism, action, and dose–response relationships to support rational drug design and clinical translation; Nanoscaffold-based systems for wound healing, aimed at accelerating tissue regeneration and repair; His work in nanomedicine and nanotheranostics addresses advanced diagnostic and therapeutic strategies for brain, breast, and lung cancers, enabling targeted and personalized treatment; Theranostic nanomedicine for tuberculosis, integrating diagnosis and therapy into single nanoplatfroms; Nanoparticulate drug delivery systems for targeted thrombolysis and the development of controlled drug delivery systems designed for precise delivery of drugs to specific sites, thereby enhancing efficacy while minimizing systemic toxicity; Multiple emulsions technology and nanotechnology, focusing on advanced formulation strategies for complex drug delivery; 3D bioprinting for regenerative therapy, contributing to the development of innovative tissue engineering and regenerative medicine solutions; Protein and peptide delivery through alternative routes of administration and the exploration of exosomes as advanced platforms for drug delivery and cancer diagnosis, supporting both therapeutic and diagnostic applications; Crystal engineering of active pharmaceutical ingredients (APIs), including crystal habit modification, polymorphism, hydrates, solvates, and stabilization of the amorphous state; Solid-state characterization at the molecular, particle, and bulk levels to understand and improve the performance of APIs; Developing a comprehensive understanding of pharmaceutical APIs, dosage forms, and processing methodologies, linking solid-state properties with formulation design and manufacturing performance.</p>
	<p>Specialization: Pharmacology</p>
	<p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1):</p>
	<p>MS/M.Pharm./M.Tech. in Pharmacy/Pharmaceutical Sciences/Pharmaceutics/ Pharmaceutical Chemistry/ Pharmacology/Pharmacognosy/ Pharmaceutical Engg./ Pharmaceutical Technology/ Pharmaceutical Biotechnology/ Bioinformatics/ Biochemical Engineering/Biomedical Engg. with graduation in Pharmacy (B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology).</p>
	<p>OR</p>
	<p>MD(Ayurveda)/ MS(Ayurveda)/M.D.(Siddha)/MD (Homeopathy)/ MD(Pharmacology)/ M.V.Sc./MDS.</p>
	<p>OR</p>
	<p>B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology/ MBBS/BDS/ BAMS/ BHMS/BSMS/ BUMS/ B.V.Sc. & A.H. Applicants with bachelor’s degree must have a minimum of 75% marks or 7.5 CPI (on 10.00 point scale) at the bachelor’s degree level. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10.00 point scale) at bachelor degree provided the degree is form an Institution funded by the Central Government.</p>
	<p>Research Areas and their description: Neurodegenerative disorders, circadian rhythm disorders, rare diseases, High altitude sickness, traumatic spinal cord injury, PTSD, biomaterials, mitochondrial medicine and Pharmaceutical biomedical devices; Experimental pharmacology and neuroscience research encompassing mechanism-based studies of neurological, neurodegenerative, metabolic, and pain-related disorders, including Alzheimer’s disease, Parkinson’s disease, diabetes, and acute and chronic pain conditions; Evaluation of disease pathophysiology and therapeutic interventions through validated in vivo and in vitro models, with emphasis on neuroinflammation, neuroimmune signaling, peripheral and central sensitization, and gut dysbiosis-associated mechanisms; Integration of AI-driven approaches for target identification and optimization of pharmacological interventions, supported by behavioral, biochemical, molecular, and neuropharmacological endpoints for comprehensive preclinical efficacy assessment; Neuropharmacology and Neuroscience, stress-related disorders, Depression, Neuroinflammation, Natural product pharmacology, Comorbid disease conditions, Psychosomatic; Vaccines design and development for</p>

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	<p>Bacterial and viral pathogens, Artificial Intelligence and Immunoinformatics for vaccines and immunotherapy design, Recombinant protein expression and purification (E.coli), Nanoparticles based antigen delivery for cancer chemo-immunotherapy, Nanoparticle mediated RNA therapeutics, Antibody drug conjugates.</p> <p>Specialization: Pharmacognosy</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): MS/M.Pharm./M.Tech. in Pharmacy/Pharmaceutical Sciences/Pharmaceutics/ Pharmaceutical Chemistry/ Pharmacology/Pharmacognosy/ Pharmaceutical Engg./ Pharmaceutical Technology/ Pharmaceutical Biotechnology/ Bioinformatics/ Biochemical Engineering/Biomedical Engg. with graduation in Pharmacy (B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology). OR MD(Ayurveda)/ MS(Ayurveda)/M.D.(Siddha)/MD (Homeopathy)/ MD(Pharmacology)/ M.V.Sc./MDS. OR B.Pharm./B.Tech. in Pharmaceutical Engineering & Technology/ MBBS/BDS/ BAMS/ BHMS/BSMS/ BUMS/ B.V.Sc. & A.H. Applicants with bachelor's degree must have a minimum of 75% marks or 7.5 CPI (on 10.00 point scale) at the bachelor's degree level. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10.00 point scale) at bachelor degree provided the degree is form an Institution funded by the Central Government.</p> <p>Research Areas and their description: Classical pharmacognosy, quality control studies and ethnopharmacological evaluation of medicinal plants, Extraction, isolation, characterization, pharmacological & toxicological evaluation of natural products; Herbal drug and nutraceutical formulation & standardization especially for CNS disorders, diabetes, cancer, liver disorders, and atherosclerosis; Preparation & characterization of carbon dots from medicinal plants for healthcare and environmental applications; Preparation of natural product derivates by semisynthetic approach and evaluation for different disease conditions; Identification of role of natural drugs in gut health improvement specially for neurodegenerative condition and disease related to metabolic disorder.</p>
Physics	<p>Specialization: Cosmology, Astronomy & Astrophysics, Solar & Space Plasma Physics</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.</p> <p>Research Areas and their description: Magnetohydrodynamics of Magnetized Plasmas in Astrophysical and laboratory scales; Symbiosis of Waves and Reconnection in understanding heating and dynamics of solar-like Plasmas; Solar & stellar transients and eruptive processes and their space weather impact; Interstellar medium structure and dynamics, processes of star formation, radio interferometric techniques, detection of 21-cm signal from the epoch of reionization and post-reionization era, Solar and stellar physics, solar and stellar magnetic fields and cycles, application of fluid dynamics, plasma theory and data science to sun and stars, Cosmology - cosmic microwave background (CMB), data/statistical analysis, simulation and forecast studies, tests of statistical isotropy, component separation techniques - Modified theories of gravity (Scalar tensor theories, etc.); stellar internal structure and evolution, stellar oscillations, fundamental stellar properties such as mass, radius, age, and helium abundance.</p> <p>Specialization: Condensed Matter Physics, Materials Science, Energy Studies</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.</p> <p>Research Areas and their description: Magnetism and Superconductivity, Energy materials, including batteries, solar cells, and fuel cells, Electroceramics and Supercapacitors, Composites and Lubricants, Single-crystal Growth, Magneto-transport studies and electron spectroscopy on Topological Materials, Long- and short-range ordering in functional materials. Crystallography and</p>

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	structural phase transition, Spintronics and magnetisation dynamics, including hybrid magnonics and microwave magnetics, 2-D and Quantum Materials.
	Specialization: Quantum Information & Many Body Theory
	Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): No additional eligibility criteria.
	Research Areas and their description: Quantum information science and quantum computing in spin systems, including applications to quantum communication protocols such as quantum teleportation, Theory of quantum devices, experimental simulation of quantum systems using microwave, electrical, and photonic platforms, strongly correlated electrons, quantum transport theory, and topological phenomena in multiterminal Josephson junctions.
	Specialization: Biophysics, Biotechnology and Nanotechnology
	Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): No additional eligibility criteria.
	Research Areas and their description: An interdisciplinary research area; understanding biological processes; engineering advanced biofunctional systems; molecular and cellular biophysics; diagnostics, therapeutics, and regenerative platforms; development of smart biomaterials, drug delivery systems, and biointerfaces; fundamental research and translational applications relevant to healthcare, materials science, and biomedical engineering.
	Specialization: Optics, Photonics and Spectroscopy
	Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): No additional eligibility criteria.
	Research Areas and their description: Fundamental, Applied & Instrumentation: Classical & Quantum Optics, Optics: in disordered media & with disordered light, Information Optics & Photonics, Structured & Singular light, Holography, Correlation optics, Artificial Intelligence for Optics, Metrology. Photonics, Fiber optics, EM wave propagation in layered media using graded, Meta & Dispersive materials, Low-dimension materials for photonic applications including Latent Fingerprint, non-contact optical temperature sensing etc., Photonic crystal fiber, and Metamaterials. Nano-structures and quantum materials for sensing, imaging and optical encryption, halide perovskites for opto-electronic and energy applications.
	Specialization: Remote Sensing
	Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): No additional eligibility criteria.
	Research Areas and their description: SAR, optical, and hyperspectral remote sensing for Earth surface analysis; SAR interferometry, polarimetry, high-resolution imaging, along with multispectral and hyperspectral data, for, land cover mapping, terrain analysis, and environmental monitoring; Polarimetric decomposition, and advanced algorithms, for complex natural and urban environments.
	Specialization: High Energy and Nuclear Physics
	Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): No additional eligibility criteria.
	Research Areas and their description: Quantum chromodynamics, flavour physics (quarks and leptons), Higgs and top-quark physics; Neutrinos oscillations, flavor symmetry, mass model, dark matter, axions/axion-like particles, dark photons, primordial black holes, gravitational waves; Beyond the Standard Model Physics; Probing new physics at particle detectors; Nuclear structure modelling; gamma-ray and charged particle spectroscopy; Nuclear Isomers; Nuclear photonics; Nuclear Phase transitions; Detector simulations, societal applications of Nuclear radiation.
	Specialization: Statistical & Soft Matter Physics
	Eligibility for admission (<i>over and above the minimum eligibility criteria written in sec. 2.A.1</i>): No additional eligibility criteria.
	Research Areas and their description: Soft matter, Active matter, Multiscale simulation, Phase separation dynamics, Growth kinetics, Structure formation, Multicomponent fluids, Polymer solutions, Polymer melts and blends,

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	Morphology Regulation, External stimuli, Chemical reactions, Molecular dynamics, Monte Carlo, Dissipative particle dynamics, Collective dynamics, Self-propelled particles, Equilibrium and nonequilibrium statistical mechanics, Machine learning, Reinforcement learning-based models, Complex systems, Pattern formation, Biopolymer simulation, Self-assembly.
Chemistry	Specialization: Inorganic Chemistry
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: The department offers Ph.D degree in various fields of Inorganic Chemistry including Organometallic Chemistry, Catalysis, Energy Conversion and Storage, Nanomaterials, MOF and COF, Artificial Photosynthesis, Electrochemistry, etc.
	Specialization: Organic Chemistry
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: The department offers Ph.D degree in various fields of Organic Chemistry, including Total Synthesis, Catalysis, Bio-Materials Chemistry, Electro-organic Chemistry, etc.
	Specialization: Physical Chemistry
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: The department offers Ph.D degree in various fields of Physical Chemistry, including Spectroscopy, Computational Chemistry, Catalysis, Electrochemistry, Energy Conversion and Storage, Biofuels, Adsorption, and Photocatalysis. etc.
	Specialization: Analytical Chemistry
	Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): No additional eligibility criteria.
	Research Areas and their description: The Department offers Ph.D degree in the various fields of Analytical Chemistry including Electrochemistry, Materials Chemistry, Sensor, etc.
	Mathematical Sciences
Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): All over first class (from 10th grade onward).	
Research Areas and their description: Algebra.	
Specialization: Analysis	
Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): All over first class (from 10th grade onward).	
Research Areas and their description: Analysis.	
Specialization: Numerical Analysis	
Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): All over first class (from 10th grade onward).	
Research Areas and their description: Numerical Analysis.	
Specialization: Differential Equations	
Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): All over first class (from 10th grade onward).	
Specialization: Operation Research	
Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): All over first class (from 10th grade onward).	
Research Areas and their description: Operation Research.	
Specialization: Graph Theory	
Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): All over first class (from 10th grade onward).	
Research Areas and their description: Graph Theory.	
Specialization: Mechanics	
Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): All over first class (from 10th grade onward).	
Research Areas and their description: Mechanics.	

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
Biochemical Engineering	<p>Specialization: Biochemical Engineering</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1):</p> <p>Master's Degree / M.Tech / M.E. / M.Pharm / M.S. degree with CGPA/CPI more than 7.0 (on a 10.0 point scale) or equivalent from Indian (IITs/NITs/CFTIs/State-funded universities; top NIRF 100) or Foreign (QS Ranking) Institutions/Universities.</p> <p>Candidates must possess a valid GATE/GPAT qualification for admission to Ph.D. programmes under the Teaching Assistantship category. Such candidates and NET-LS candidates need to qualify written test and interview as specified by the individual Department/Centre/Schools.</p> <ul style="list-style-type: none"> • Applicants with bachelor's degree in engineering in the discipline concerned or in an allied discipline/area must have a minimum of 75% marks or 7.5 CPI (on a 10.0 point scale) at the bachelor's degree level. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on a 10.0 point scale) at bachelor's degree level, provided the degree is from an Institution funded by the Central Government. Candidates must possess a valid GATE/GPAT qualification for admission to Ph.D. programmes under the Teaching Assistantship category. • Applicants with master's degree in science in an allied discipline/area (where science is an allied discipline/area) must satisfy each of the following criteria: <ul style="list-style-type: none"> (i) a minimum of 65% marks or 6.5 CPI (on a 10.0 point scale) at the master's degree level, (ii) a minimum of 60% marks or 6.0 CPI (on a 10.0 point scale) at the bachelor's degree level. Candidates must possess a valid GATE/GPAT qualification for admission to Ph.D. programmes under the Teaching Assistantship category. <p>However, the requirement of GATE/GPAT qualification shall be exempted for the following categories of candidates:</p> <ul style="list-style-type: none"> • Candidates holding professional medical degrees, namely MBBS, BDS, BAMS, MS, or MD (all disciplines included); • Candidates with a minimum of two (2) year of relevant industry experience after obtaining the qualifying degree. <p>For the Project Fellow Candidates</p> <ul style="list-style-type: none"> • A candidate applying for the Ph.D. Programme at IIT(BHU) under this category, with M. Tech / M.E. / M. Pharm / M.S. degree with CGPA/CPI more than 7.0 (or equivalent) from Indian (IITs/NITs/CFTIs/Top 100 NIRF State-funded) or Foreign (QS Ranking) Institutions/Universities must possess a valid GATE/GPAT qualification for consideration of admission to the Ph.D. Programme. <p>However, the requirement of GATE/GPAT qualification shall be exempted for the following categories of candidates:</p> <ul style="list-style-type: none"> • Candidates holding professional medical degrees, namely MBBS, BDS, BAMS, MS, or MD (all disciplines included); • Candidates with a minimum of two (2) year of relevant industry experience after obtaining the qualifying degree. <p>Research Areas and their description: All areas of Biochemical Engineering.</p>
Biomedical Engineering	<p>Specialization: Biomedical Engineering</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1):</p> <ul style="list-style-type: none"> • Project Fellow candidates and candidates having MBBS/BDS/Master's in Physiotherapy or M.Tech./M.E. degree in Biomedical Engineering or in allied disciplines as listed in Annexure-II (Table 2A) for the School of Biomedical Engineering shall be considered eligible for admission to the Ph.D. programme as per the minimum eligibility criteria mentioned in Section 2.A.1. • Candidates possessing any other eligible degree as listed in Annexure-II (Table 2A) for the School of Biomedical Engineering (including B.Tech., B.E., M.Sc., M. Pharm and other allied qualifications mentioned in Table 2A)

Disciplines	Eligibility for Admission and Research Areas (specialization-wise, if Any)
	<p>must have qualified the GATE/GPAT examination, in addition to fulfilling the minimum eligibility criteria mentioned in Section 2.A.1.</p> <p>Research Areas and their description: Biomechanics; Rehabilitation Engineering; Bioinstrumentation; Biomaterials, Biomedical Signal & Image Processing; Artificial Intelligence and its application to Biomedical Signal & Image Processing; Brain Computer Interface; Computational Neuroscience; Neuroinformatics; Physiology; Electrophysiology & Neuro Biology; Biopolymers; Polymer in Medicine; Modeling of Biological System; Biological Control System Analysis; Tissue Engineering & Micro fluidics; Molecular Biology; Biochemistry; Nanomedicines and therapeutics; Optical Nanomaterial; Biosensing; Image Theuranostics; Organoids; Regenerative medicine; Cancer Biology and Therapy; Nano-Vaccination; Nano-Immunology; Cancer Immunotherapy; Cell Biology; Genomics and Proteomics; Bioinformatics and Computational Biology; Genetic Engineering; Metabolomics; Forensic Science.</p>
Materials Science and Technology	<p>Specialization: Materials Science and Technology</p> <p>Eligibility for admission (over and above the minimum eligibility criteria written in sec. 2.A.1): Master's degree in Physical Sciences, Chemical Sciences, Engineering Sciences, Nanoscience, and Nanotechnology. Bachelor's / Master's degree in Engineering/Metallurgical Engineering/ Materials, Mechanical Science and Engineering/ Electronics and Communication Engineering/ Electrical Engineering/ Master's in Polymer Science and Engineering/ Rubber Technology, Nanoscience and Nanotechnology/Biotechnology/Life Sciences/Master's in Data Science and Artificial Intelligence.</p> <p>Research Areas and their description: Electrical and Electronic Materials, Smart/Functional Materials, Magnetic Materials, Nanostructured Materials, Quantum Materials and Technology, Sensors and Devices, Computational Materials Science. Polymer Science & Technology, Biotechnology, Biomaterials, Structural Materials, Advanced Ceramic Materials, Rubber Technology. Energy Materials, Optoelectronics, Nanophotonics, Materials for Environmental Applications, Stealth and Redome Materials, Microwave Materials. Ferrous & Non-Ferrous Alloys, Mechanical Metallurgy, Additive Manufacturing, Low Temperature Instrumentation, Spectroscopic Techniques, Polymer Science and Engineering, Plastics Engineering, Rubber Technology, Textile Technology, Artificial Intelligence, and Data Science.</p>

**Table 2C: Total Number Institute Assistantship available
in the departments/schools in Odd Semester 2026-27**

Discipline	Total Number of Available Assistantship
Architecture, Planning and Design	08
Biochemical Engineering	09
Biomedical Engineering	06
Ceramic Engineering	10
Chemical Engineering	26
Chemistry	07
Civil Engineering	26
Computer Science & Engineering	27
Electrical Engineering	14
Electronics Engineering	26
Humanities & Social Sciences	12
Decision Sciences and Engineering	05
Materials Science & Technology	10
Mathematical Sciences	10
Mechanical Engineering	21
Metallurgical Engineering	36
Mining Engineering	15
Pharmaceutical Engineering & Technology ^(C)	03
Physics	05
Systems Engineering	03

Note:

- A) 2 Seats (supernumerary) offers under Project “Jay Chaudhry Software Innovation Centre” in Computer Science and Engineering Department
- B) 02 seats (supernumerary) offers for MoRTH under Civil Engineering Department (topic mentioned on page no. 6)
- C) 02 seats in Pharmaceutics and 01 seat in Pharmacology.
- D) The number of available Institute Assistantship should not be considered as available seats. Applicants who are either of sponsored category or who are already awarded fellowship by external agencies can submit their applications for admission in departments/schools even if there are no Institute Assistantship available.

**LIST OF R & D ORGANIZATIONS RECOGNIZED BY THE INSTITUTE
FOR EXTERNAL REGISTRATION**

1. All R & D Laboratories/Institutions of CSIR, DAE, DOS, DRDO, DST, ICMR, DHR, DBT, and Ministry of Telecommunication & Information Technology.
2. Bharat Heavy Electricals Limited (BHEL), Research and Development Laboratories.
3. Central Indian Pharmacopoeia Laboratory, Ghaziabad.
4. Central Mine Planning and Design Institute Limited, Ranchi.
5. Central Power Research Institute, Bangalore.
6. Central Pulp and Paper Research Institute, Saharanpur.
7. Banaras Locomotive Works (BLW), Varanasi
8. Hindustan Aeronautics Limited, Lucknow & Korwa.
9. Hindustan Machine Tools (R & D Division), Bangalore.
10. Indian Bureau of Mines, Nagpur.
11. Jyoti Limited, Baroda.
12. Kirloskar Electric Limited, Bangalore.
13. Mechanical Engineering Research and Development Organization, Pune.
14. National Institute of Rock Mechanics, Kolar.
15. National Council for Cement and Building Materials (NCCBM), New Delhi.
16. Raman Research Institute, Bangalore.
17. Tata Steel, Jamshedpur.
18. National Metallurgical Laboratory Extension Centre, Chennai.
19. Northern Coalfields Limited, Singrauli
20. Research Designs and Standards Organization (RDSO), Lucknow
21. JSW Steel Limited.
22. Coal India Limited with all subsidiaries.
23. Singareni Collieries Company Limited.
24. Hindustan Copper Limited.
25. National Mineral Development Corporation.
26. Neyveli Lignite Corporation India Limited.
27. Steel Authority of India Limited.
28. National Thermal Power Corporation.
29. National Aluminum Company Limited.
30. Directorate of General and Mines Safety.
31. Gujarat Mineral Development Corporation Limited.
32. Tata Elxsi – Quantum Computing & AI, Bengaluru.
33. Center for Development of Telematics (C-DOT) – Next-Generation Communication & AI, Bengaluru (Karnataka)
34. Society for Applied Microwave Electronics Engineering & Research (SAMEER) – 6G & Semiconductor Research, Mumbai.
35. Tabor Electronics Ltd.– Advanced Signal Processing & RF Technologies, Ahmedabad.
36. S-Qube Systems – Quantum Radar and Integrated Sensing.
37. QNu Labs – Quantum Cryptography & Secure Communication.
38. BosonQ Psi – Quantum Computing Applications.
39. QpiAI – AI & Quantum Machine Learning.
40. Tata Quantum – Quantum Technologies for Defense & Communication.
41. Synergy Quantum India – Quantum Communication & Sensing.