GATE 2019

GRADUATE APTITUDE TEST IN ENGINEERING

Information Brochure

Organizing Institute

Indian Institute of Technology Madras

IISc Bangalore	IIT Bombay	IIT Delhi	IIT Guwahati	IIT Kanpur	IIT Kharagpur	IIT Madras	IIT Roorkee
gate.iisc.ac.in	gate.iitb.ac.in	gate.iitd.ac.in	iitg.ac.in/gate-jam	gate.iitk.ac.in	gate.iitkgp.ac.in	gate.iitm.ac.in	gate.iitr.ac.in

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1. Introduction

Graduate Aptitude Test in Engineering (GATE) is an examination conducted jointly by the Indian Institute of Science (IISc), Bangalore and the seven Indian Institutes of Technology (at Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) on behalf of the National Coordination Board (NCB)-GATE, Department of Higher Education, Ministry of Human Resource Development (MHRD), Government of India.

Qualifying in GATE is a mandatory requirement for seeking admission and/or financial assistance to: (i) Master's programs and direct Doctoral programs in Engineering/Technology/Architecture and (ii) Doctoral programs in relevant branches of Science, in the institutions supported by the MHRD and other Government agencies. Even in some colleges and institutions, which admit students without MHRD scholarship/assistantship, the GATE qualification is mandatory. Further, many Public Sector Undertakings (PSUs) have been using the GATE score in their recruitment process.

The information in this brochure is mainly categorized into **Pre-Examination** (Eligibility, Application Submission, Examination Centres, etc.), **Examination** (Pattern, Marks/Score, etc.) and **Post-Examination** (Answers, Contests, Results, Scorecard, etc.) sections.

2. About GATE

Graduate Aptitude Test in Engineering (GATE) is basically an examination on the comprehensive understanding of the candidates in various undergraduate subjects in Engineering/Technology/Architecture and post-graduate level subjects in Science. GATE 2019 will be conducted for 24 subjects (also referred to as "papers") and it would be distributed over 2nd, 3rd, 9th & 10th of February 2019. The GATE examination centres are spread in different cities across India, as well as, in six cities outside india. The examination would be purely a Computer Based Test (CBT).

The GATE score would reflect the relative performance level of the candidate in a particular subject, which is quantified based on the several years of examination data. Note that the GATE 2019 score is valid for **THREE YEARS** from the date of announcement of the results.

2.1. Administration

GATE is administered jointly by the Indian Institute of Science (IISc), Bangalore and seven Indian Institutes of Technology (namely, IITs at Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee). The GATE Committee, which comprises of representatives from the administering institutes, is the sole authority for regulating the examination and for declaring the results. For administrative purposes, the examination cities in India are segregated into eight zones. The operations related to GATE, in each of the eight zones, are managed by a Zonal GATE Office at the administering institute **(IIT or IISc)**.

Table 2.1 gives details of the zones and the corresponding administering institutes.

One of the administering institutes is designated as the **Organizing Institute** (OI), and it would be responsible for the end-to-end process, as well as, the overall coordination amongst the administering institutes for conducting the **GATE** Examination. The **Organizing Institute** for GATE 2019 is **Indian Institute of Technology Madras (IITM).**

Table 2.1 Zones and the corresponding administrative institutes for GATE 2019

Zone	Administering Institute	Zonal Websites
Zone-1	Indian Institute of Science Bangalore	http://gate.iisc.ac.in
Zone-2	Indian Institute of Technology Bombay	http://gate.iitb.ac.in
Zone-3	Indian Institute of Technology Delhi	http://gate.iitd.ac.in
Zone-4	Indian Institute of Technology Guwahati	http://iitg.ac.in/gate-jam
Zone-5	Indian Institute of Technology Kanpur	http://gate.iitk.ac.in
Zone-6	Indian Institute of Technology Kharagpur	http://gate.iitkgp.ac.in
Zone-7	Indian Institute of Technology Madras	http://gate.iitm.ac.in
Zone-8	Indian Institute of Technology Roorkee	http://gate.iitr.ac.in

2.2. Scholarship/Assistantship for Postgraduate Programs

To avail the financial assistance (scholarship/assistantship), the candidate must first secure the admission to a program in one of the central government supported institutes, by a procedure that could vary from institute to institute. Depending upon the norms adopted by a specific institute or department of the institute, a candidate may be admitted directly into a course based on**:** his/her performance in GATE only; **or** based on his/her performance in GATE **and** an admission test/interview conducted by the department to which he/she has applied **and/or** the candidate's academic record. In the test/interview based selection procedure, as per the MHRD guidelines, a minimum of 70% weightage will be given to the performance in GATE and the remaining will be given to the candidate's performance in test/interview and/or academic record. However, the admitting institutes could prescribe a minimum passing marks in the test/interview.

Candidates are advised to seek the complete details of the admission procedures and the availability of MHRD scholarship/assistantship from the corresponding admitting institutions. The criteria for postgraduate admission with scholarship/assistantship could be different for different institutions. The management of the post-graduate scholarship/assistantship is also the responsibility of the admitting institution. Similarly, reservation of the seats for different categories will be as per the policies and norms of the admitting institution and the Government of India rules.

The admitting institute may also specify the number of candidates who will be provided financial assistance (scholarship), if admission is secured. Qualification in GATE is also a minimum requirement to apply for various fellowships awarded by many Government organizations.

Note: 1. Call for admissions to M.Tech./Ph.D. will be advertised separately by the respective institutions and GATE committee is not responsible for the admission process.

2. GATE zonal offices will not entertain any enquiry about admission, reservation of seats and/or award of scholarship/assistantship.

2.3. Use of GATE score for Employment

In the past, several Public Sector Undertakings (PSUs) have used GATE scores to shortlist the candidates for employment. A few such organizations are: Bharat Heavy Electricals Limited (BHEL), Gas Authority of India Limited (GAIL), Hindustan Aeronautics Limited (HAL), Indian Oil Corporation Limited (IOCL), National Thermal Power Corporation (NTPC), Nuclear Power

Corporation of India Limited (NPCIL), Oil and Natural Gas Corporation (ONGC) and Power Grid Corporation of India (PGCI).

Direct recruitment to Group A level posts in Central government, i.e., Senior Field Officer (Tele), Senior Research Officer (Crypto) and Senior Research Officer (S&T) in Cabinet Secretariat, Government of India, is now being carried out on the basis of GATE score. The details of the scheme of recruitment are normally published in National Newspapers/Employment News/Rozgar Samachar by the concerned authority.

Some other Government of India Organizations have also expressed their interest to utilize GATE 2019 score for their recruitment purpose.

Note: GATE administration is not responsible for employment opportunities. The qualified candidates must check newspapers and other reliable sources for any such information.

3. About GATE 2019

- IIT Madras is the organizing institute for GATE 2019.

- Information website for GATE 2019 is http://gate.iitm.ac.in

- GATE 2019 will be conducted on 24 subjects (also referred to as "papers").

- Examination for all the **24 subjects** (papers) will be conducted as ONLINE Computer Based Test (CBT).

  o The online examination paper will contain some questions for which numerical answers must be keyed in by the candidate using a virtual keypad. Rest of the questions will be of Multiple Choice Question (MCQ) type. The Candidates will use ONLY an on-screen virtual calculator provided for the examination.

- A candidate can appear **only** in **ANY ONE** paper of the GATE examination.

- GATE 2019 examinations will be held during the forenoon and afternoon sessions on 2nd, 3rd, 9th & 10th of February 2019.

  o Examination for some of the papers in GATE 2019 may be held in multiple sessions. However, a candidate can appear for the examination in **one session ONLY**.

  o Exact details of the complete examination schedule will be notified later on the GATE 2019 website.

- Candidates have to register and fill the application via **ONLINE mode ONLY** at GATE Online Application Processing System (GOAPS). The link will be made available on GATE 2019 website http://gate.iitm.ac.in).

  o The entire process of filling up of the application form and uploading of certificates/documents, etc. is in online mode only. The candidates should not send any hard copy of his/her application form/documents etc. to IIT Madras or any of the zonal GATE offices.

- The payment of application fees is through electronic mode.

- The Admit Cards for GATE 2019 would be available only on GOAPS website. Candidates can download their Admit Card from GOAPS website. No printed copy of the Admit Cards will be posted to the candidates.

- The candidate has to appear at the GATE Examination Centre on the date and time specified in the Admit Card.

  o No request for any changes in the Centre or Date/Time specified in the Admit Card will be entertained. Similarly, this being an examination body with certain constraints, candidates needing very special or specific facility for the examination may not be entertained. Hence, candidates are requested to adhere to the facilities that are possible within the ambit and resources of GATE Examination Body.

- Important dates for GATE 2019 are given in Table 3.1.

Table 3.1 Important Dates related to GATE 2019

GATE Online Application Processing System (GOAPS) Website Opens	**Saturday**	**1st September 2018**
Closing Date for Submission of (Online) Application (through Website)	**Friday**	**21st September 2018**
Extended Closing Date for Submission of (Online) Application (through Website)	**Monday**	**1st October 2018**
Last Date for Requesting Change of Examination City (an additional fee will be applicable)	**Friday**	**16th November 2018**
Admit Card will be available in the Online Application Portal (for printing)	**Friday**	**4th January 2019**
GATE 2019 Examination **Forenoon: 9:30 AM to 12:30 Noon (Tentative)** **Afternoon: 2:30 PM to 5:30 PM (Tentative)**	**Saturday** **Sunday** **Saturday** **Sunday**	**2nd February 2019** **3rd February 2019** **9th February 2019** **10th February 2019**
Announcement of the Results in the Online Application Portal	**Saturday**	**16th March 2019**

- Physical calculators, mobile phones and wrist watches are strictly prohibited and candidates possessing these in the examination hall (even if not using) will be disqualified.

- Biometric information (Photograph and Fingerprints) for randomly selected candidates may be captured before the start of the examination.

- In all matters concerning GATE 2019, the decision of the **GATE 2019 Committee** will be final and binding on all the applicants.

- Although GATE 2019 will be held at different test centres across the country, the Indian Institute of Technology Madras, being the Organizing Institute, bears the overall responsibility of conducting GATE 2019. In case of any claims or disputes arising with respect to GATE 2019, it is hereby made absolutely clear that the Madras High Court in Chennai alone will have the exclusive jurisdiction to entertain and settle them.

4. Pre-Examination Related Information

4.1.   Eligibility for GATE 2019

Before starting the application process, the candidate must ensure that he/she meets the educational eligibility criteria of GATE 2019, which are enumerated in Table 4.1.

Table 4.1 Eligibility Criteria for GATE 2019

Qualifying Degree	Qualifying Degree / Examination	Description of Eligible Candidates	Year of Qualification not later than
B.E./ B.Tech./ B.Pharm.	Bachelor's degree holders in Engineering/Technology (4 years after 10+2 or 3 years after B.Sc./Diploma in Engineering /Technology)	Currently in the final year or already completed	2019
B. Arch.	Bachelor's degree holders of Architecture (5 years course)	Currently in the final year or already completed	2019
B.Sc. (Research)/ B.S.	Bachelor's degree in Science (Post-Diploma/4 years after 10+2)	Currently in the 4th year or already completed	2019
Pharm. D. (after 10+2)	6 years program, consisting of internship or residency training during sixth year	Currently in the 4th/5th/6th year or already completed	2021
M. Sc./ M.A./MCA or equivalent	Master's degree in any branch of Science/Mathematics/Statistics/ Computer Applications or equivalent	Currently in the final year or already completed	2019
Int. M.E./ M.Tech. (Post-B.Sc.)	Post-BSc Integrated Master's degree programs in Engineering/Technology (4 years program)	Currently in the 2nd/ 3rd/4th year or already completed	2021
Int. M.E./ M.Tech. or Dual Degree(after Diploma or 10+2)	Integrated Master's degree program or Dual Degree program in Engineering/Technology (5 years program)	Currently in the 4th/5th year or already completed	2020
Int. M.Sc./ Int. B.S.-M.S.	Integrated M.Sc. or 5 years integrated B.S.-M.S. program	Currently in the final year or already completed	2019
Professional Society Examinations* (equivalent to B.E./B.Tech./B. Arch.)	B.E./B.Tech./B.Arch. equivalent examinations of Professional Societies, recognized by MHRD/UPSC/AICTE (e.g., AMIE by Institution of Engineers-India, AMICE by the Institute of Civil Engineers-India and so on)	Completed Section A or equivalent of such professional courses	NA

* Some of these Professional Societies / Institutions, which conduct examination in various fields of engineering, are as follows:

- The Institution of Engineers (India) (IE)

- The Institution of Civil Engineers (ICE)

- The Institution of Electronics and Telecommunication Engineers (IETE)

- The Aeronautical Society of India (AeSI)

- The Indian Institute of Chemical Engineers, including Polymer and Environmental Group (IIChemE)

- The Indian Institute of Metals (IIM)

- The Indian Institute of Industrial Engineers (IIE)

However, the candidates who possess certification from any of the professional societies must ensure that those examinations conducted by the societies are approved by MHRD/AICTE as equivalent to B.E./B.Tech./B.Arch, subject to public notice (Advt No. P& AP/10(04)/2017)

(**Website Link**: http://www.aicte-india.org/content/public-notice-professional-bodiesinstitutes-imparting-technical-education)

Candidates who have obtained/are pursuing their qualifying degree from countries other than India:

i) must have completed or are in the final year of their Bachelor's degree (duration: at least 4 years) in Engineering/Technology or;

ii) must have completed or are in the final year of their Post Graduate (Master's) degree (duration: at least 2 years) in any relevant subjects in science.

Note: If a candidate is pursuing any higher degree or has already obtained a degree higher than that mentioned in the Table 4.1, the candidate should select the minimum required qualifying degree while filling the application form.

Documents Required in Support of Eligibility (Eligibility Documents)

- In case, the candidate has already passed (in 2018 or earlier) one of the qualifying examinations listed in Table 4.1, he/she has to submit (i.e. upload) the **degree certificate/provisional certificate/course completion certificate/professional certificate/membership certificate** issued by the institute or society.

- In case, the candidate is expected to complete one of the qualifying criteria specified in Table 4.1, he/she has to upload a **Certificate from the Head of the Department/Institute** (in the format given in Appendix A) or a copy of marksheet for Section A of AMIE. This certificate must mandatorily have the signature and seal of the Head of Institute/Department with current date.

Note: Eligibility Document, as applicable, has to be uploaded only while filling the online application and **NOT** to be sent by post.

Qualifying Disciplines

Appendix B gives a list of the qualifying disciplines. This list is only indicative and it is not necessary that the name of the candidate's degree has to be as per the table.

4.2. GATE 2019 Papers

GATE 2019 will be conducted on 24 subjects (papers). Table 4.2 shows the list of papers and paper codes for GATE 2019. A candidate is allowed to appear in **ONLY ONE** paper in **any ONE SESSION**.

Table 4.2 List of GATE 2019 Papers and Corresponding Codes

GATE Paper	Code	GATE Paper	Code
Aerospace Engineering	AE	Instrumentation Engineering	IN
Agricultural Engineering	AG	Mathematics	MA
Architecture and Planning	AR	Mechanical Engineering	ME
Biotechnology	BT	Mining Engineering	MN
Civil Engineering	CE	Metallurgical Engineering	MT
Chemical Engineering	CH	Petroleum Engineering	PE
Computer Science and Information Technology	CS	Physics	PH
Chemistry	CY	Production and Industrial Engineering	PI
Electronics and Communication Engineering	EC	Statistics	ST
Electrical Engineering	EE	Textile Engineering and Fibre Science	TF
Ecology and Evolution	EY	Engineering Sciences	XE*
Geology and Geophysics	GG	Life Sciences	XL**

*XE Paper Sections	Code	**XL Paper Sections	Code
Engineering Mathematics (Compulsory)	A	Chemistry (Compulsory)	P
Any two optional sections		**Any two optional sections**	
Fluid Mechanics	B	Biochemistry	Q
Materials Science	C	Botany	R
Solid Mechanics	D	Microbiology	S
Thermodynamics	E	Zoology	T
Polymer Science and Engineering	F	Food Technology	U
Food Technology	G		
Atmospheric and Oceanic Sciences	H		

*XE (Engineering Sciences) and **XL (Life Sciences) papers are of general nature and will be comprised of Sections listed in the above table.

Note: CE, CS, EC, EE and ME papers: Examination may be conducted in multiple sessions. However, a candidate is allowed to appear in only **ONE** specified session.

The syllabus for each of the papers is given on GATE website http://gate.iitm.ac.in. Making a choice of the appropriate paper in the GATE application is the responsibility of the candidate. Some guidelines in this respect are suggested below.

Candidates are expected to appear in a paper appropriate to the discipline of their qualifying degree. However, candidates are free to choose any one of the GATE 2019 papers as per their admission or employment plan, while keeping in mind the eligibility criteria for the institutions in which they wish to seek admission/employment. For more details regarding the admission criteria in any particular institute, the candidate is advised to refer to the website of that institute.

Candidates must learn about the paper code of their choice, as this information is essential during making the application, as well as, during the examination. As the candidates are permitted to appear in **ONLY ONE** of the 24 papers of the GATE 2019, they should make their choice (of the paper), with due care.

After submission of application, any change of paper is NOT permitted.

If a candidate makes more than one application for the same paper, he/she will be allowed to appear in any one session ONLY. One of the duplicate/triplicate applications will be considered and the remaining applications will be rejected without any refund of application fee.

4.3. GATE 2019 Examination Cities

Table 4.3 gives a tentative list of the cities (zone-wise) in which GATE 2019 examination is planned to be held. Also given in the table are the details of the Zonal GATE Offices.

Table 4.3 Tentative List of Zone-wise Examination Cities

Zone No.	Zonal GATE Office	Tentative List of Examination Cities/Towns*
1	**IISc Bangalore Bengaluru - 560 012 Website: http://gate.iisc.ac.in**	Ananthapuramu, Angamaly, Bagalkot, Ballari (Bellary), Belagavi (Belgaum), Bengaluru North, Bengaluru South, Bidar, Davanagere, Hassan, Hubballi (Hubli), Hyderabad, Kalaburagi (Gulbarga), Kannur, Kasaragod, Kolar, Kozhikode, Kurnool, Malappuram, Mangaluru, Manipal, Mysuru (Mysore), Palakkad, Payyanur, PortBlair, Shivamogga (Shimoga), Thrissur, Tumakuru, Vatakara
2	**IIT Bombay, Powai, Mumbai - 400 076 Website: http://gate.iitb.ac.in**	Ahmedabad, Ahmednagar, Amravati, Anand, Aurangabad, Baramati, Bhavnagar, Bhuj, Gandhinagar, Goa, Jalgaon, Kankavli, Kolhapur, Mehsana, Mumbai, Nagpur, Nanded, Nashik, Navi Mumbai, Pune, Rajkot, Ratnagiri, Sangli, Satara, Solapur, Surat, Thane, Vadodara
3	**IIT Delhi, HauzKhas, New Delhi – 110 016 Website: http://gate.iitd.ac.in**	Ajmer, Alwar, Bahadurgarh, Bikaner, Faridabad-Palwal, Greater NOIDA, Gurugram, Hisar, Indore, Jaipur, Jammu, Jodhpur, Karnal, Kota, Mathura, New Delhi, Rohtak, Samba, Sikar, Udaipur-Chittorgarh, Ujjain
4	**IIT Guwahati Guwahati – 781 039 Website: http://iitg.ac.in/gate-jam**	Agartala, Arrah, Asansol-Durgapur, Bokaro Steel City, Burdwan, Dhanbad, Dibrugarh, Gangtok, Guwahati, Imphal, Itanagar, Jorhat, Kalyani, Muzaffarpur, Patna, Purnea, Shillong, Silchar, Siliguri, Tezpur
5	**IIT Kanpur Kanpur – 208 016 Website: http://gate.iitk.ac.in**	Agra, Aligarh, Allahabad, Bareilly, Bhopal, Gorakhpur, Gwalior, Jabalpur, Kanpur, Lucknow, Varanasi
6	**IIT Kharagpur Kharagpur – 721 302 Website: http://gate.iitkgp.ac.in**	Balasore, Berhampur (Odisha), Bhilai, Bhimavaram, Bhubaneswar, Bilaspur (CG), Cuttack, Eluru, Hooghly, Jamshedpur, Kakinada (AP), Kharagpur, Kolkata, Raipur, Rajamahendravaram (Rajahmundry), Ranchi, Rourkela, Sambalpur, Srikakulam, Tadepalligudem, Vijayawada, Visakhapatnam, Vizianagaram
7	**IIT Madras Chennai – 600 036 Website: http://gate.iitm.ac.in**	Alappuzha, Aluva, Attingal, Bapatla – Chirala, Chengannur, Chennai South, Chennai West, Chittoor, Coimbatore, Cuddalore, Dindigul, Ernakulam, Erode-Thiruchengode, Gudur, Guntur, Idukki, Kadapa, Kanjirapally, Kanyakumari-Nagercoil, Karimnagar, Karur, Khammam, Kodad, Kollam, Kothamangalam, Kottayam, Madurai, Muvattupuzha, Namakkal, Nedumangad, Nellore, Ongole, Pala, Puducherry (Pondicherry), Punalur, Salem, Thanjavur, Thiruvananthapuram, Thoothukudi (Tuticorin), Tiruchirapalli, Tirunelveli, Tirupati, Vellore, Villupuram, Virudhunagar, Warangal
8	**IIT Roorkee Roorkee – 247 667 Website: http://gate.iitr.ac.in**	Ambala, Amritsar, Baddi (HP), Bathinda, Chandigarh, Dehradun, Ghaziabad, Haldwani- Bhimtal, Hamirpur (HP), Jalandhar, Kurukshetra, Ludhiana, Meerut, Mohali, Moradabad, NOIDA, Panipat, Pathankot, Patiala, Roorkee, Sangrur, Shimla, Solan, Sonepat, Una, Yamunanagar
9	**International GATE, IIT Madras**	Addis Ababa (Ethiopia), Colombo (Sri Lanka), Dhaka (Bangladesh), Dubai (UAE), Kathmandu (Nepal), Singapore

* This is a tentative list, and any change will be updated on website: www.gate.iitm.ac.in

Choice of Examination City: The candidate can choose THREE cities from the list of examination cities given in Table 4.3. The first and second choices must be from the same GATE zone and third choice can be from any GATE zone.

If a candidate chooses a particular city (in a particular zone) as the first choice, then he/she will be able to choose the city of second choice ONLY from the same zone. However, third choice can be from any one of the listed cities (i.e., no restriction on the zone for the third choice city). Note that, because of the operational constraints, the GATE Committee reserves the right to add a new city or remove an existing one, and allot a city that may not be from any of the choices selected by the candidate.

4.4.   Application Process

Application for GATE 2019 must be submitted ONLINE (through GOAPS website, **https://appsgate.iitm.ac.in**) by paying necessary application fee. **For GATE 2019, all information related to the application process will be available in the GOAPS website. The photograph, signature, certificate of qualifying degree, category certificate (SC/ST/PwD) and/or Dyslexic certificate, wherever applicable, must be uploaded during the online application.** Candidates must enter the ID number specified in any one of the following IDs: Passport, PAN Card, Voter ID, Aadhaar-UID, College ID, Employee ID and Driving License. **The candidates who do not possess any of these identity cards, may please procure any one of them before making the application.**

Please note that the GATE application form is not available for sale or otherwise anywhere.

4.4.1 GATE 2019 Application Fee

Details of the application fee are given in Table 4.4. The application fee is NEITHER refundable NOR transferable. Payments have to be made online by using either net banking or debit card or credit card. As per the prevailing norms, additional online transaction charges or bank charges can be applicable. These charges will be specified on the payment portal.

Table 4.4 Details of Application Fee for GATE 2019

For Examination Centres in India	On or Before 21st Sept. 2018	During the Extended Period
Female candidates	₹ 750	₹ 1250
SC/ST/PwD* category candidates	₹ 750	₹ 1250
All other candidates	₹ 1500	₹ 2000
For Examination Centres outside India (All Candidates)		
Addis Ababa, Colombo, Dhaka and Kathmandu	US$ 50	US$ 70
Dubai and Singapore	US$ 100	US$ 120

Note: The application fee mentioned above DOES NOT INCLUDE service charges, processing fees and any other charges that the banks may levy.

*PwD means Persons with Disability.

4.4.2 GATE Online Application Processing System (GOAPS)

GOAPS: https://appsgate.iitm.ac.in is the webpage/web address of the GATE Online Application Processing System (GOAPS)**. It can also be accessed from the GATE 2019 website (http://gate.iitm.ac.in).**

GOAPS also provides an online interface to the candidate for interacting with the GATE administration. With this interface, a candidate can:

- Apply for the examination.

- Upload photograph, signature and other documents like qualifying degree certificate/ Certificate from the Head of the Department/Institute (in the format given in Appendix A) and category certificate (SC/ST/PwD) and/or Dyslexic certificate as applicable.

- Pay the application fee through any of the electronic payment modes.

- Check the Status of the application form: Received, Under scrutiny, Accepted, Defect status, Status after rectification, Rejected with valid reasons, Admit Card ready for download, etc.

- Download Admit Card.

- View his/her answers, marks and GATE score.

- Download GATE scorecard.

GOAPS Registration: A candidate must first register by providing Full Name **(as per the qualifying degree certificate**), a valid e-mail address, mobile number and by choosing a password. All communications from the GATE Offices will be sent to this e-mail address (**ONLY ONE PERSON CAN REGISTER WITH ONE e-mail ADDRESS**). Give the personal mobile number and e-mail address, because most of the communication will be through e-mail and/or SMS.

GOAPS Enrollment ID: Each GOAPS registered candidate will be provided with an Enrollment ID. Upon registration, an e-mail containing the GOAPS Enrollment ID will be sent to the candidate. This Enrollment ID will be the reference ID for all future communication.

GOAPS Password: The candidate has to choose a password during Enrollment at GOAPS. This password **must be remembered** along with the GOAPS **Enrollment ID** to login to GOAPS. It is strongly recommended to choose a password that cannot be guessed easily (it should not be the candidate's name, date of birth, or some easily guessable string of numbers or letters like 12345 or abcd). **Keep your password information safe, secure and confidential.**

4.4.3 Filling in GATE 2019 Application

After due registration, GATE 2019 application must be filled and submitted ONLINE only at GOAPS.

Candidates are discouraged from making application through a third person. If someone else (friend or Internet café person) is filling the application on behalf of the candidate, the

candidate must ensure that the data submitted are correct. **Based on the earlier experiences, submission through a third person is highly discouraged to ensure an error free application.**

(i) Data Requirement for Filling the Application Form: The following data will be required while filling the form at GOAPS:

- Personal information (name, date of birth, personal mobile number, parents' name, parents' mobile number, etc.). Please note that the name of the candidate in the application form must exactly be the same as that in the qualifying degree certificate or the certificate issued by the Head of the Department/Institute in which the candidate is pursuing his/her study. GATE 2019 scorecard **will be issued as per the name entered in the application form**. Prefix/title such as Mr/Shri/Dr/Mrs/Smt, etc. should NOT be used before name.

- Address for Communication (including PIN code)

- Eligibility degree details

- College name and address with PIN code

- GATE paper (subject)

- Choice of GATE examination cities

- High quality image of candidate's photograph conforming to the requirements specified

- Good quality image of candidate's signature conforming to the requirements specified

- Scanned copy of the Eligibility Certificate in pdf format (Degree Certificate or Provisional Certificate or Certificate from the Head of the Department/Institute (in the format specified in Appendix A)

- Scanned copy of Category (SC/ST) certificate (if applicable) in pdf format

- Scanned copy of PwD Certificate (if applicable) in pdf format

- Scanned copy of Dyslexic Certificate (if applicable) in pdf format

- Details of the valid Identity Document (ID) (The same ID, in original, should be carried to the examination hall)

- Net-banking/debit card/credit card details for fee payment

(ii) Application Filling: The GOAPS allows you to enter the data, save partially filled form, logout, and resume filling the form by logging in again. The GOAPS portal is self-explanatory and user-friendly. Additional help information required in filling various fields in the GOAPS portal will also be made available.

Before proceeding to payment, the candidate is advised to view the filled-in application form by clicking "Save and View Application" button. **Please check carefully for any errors in the data entered in the application form**. Once the candidate clicks **"Submit and Proceed to Payment"**

button, **no further changes to the application can be made.** For online payment, follow the instructions given in Section 4.4.7 for payment options.

(iii) Problems in Login into GOAPS: In case of forgotten user ID or password, follow the instructions on the GOAPS portal to retrieve them.

4.4.4 Identity Proof

Candidates have to specify **ANY ONE** of the following Identity Documents (IDs) during the online application process and enter the document number specified over there: **Passport, PAN Card, Voter ID, Aadhaar-UID, College ID, Employee ID or Driving License.** On the examination day, the candidate must bring the original ID proof along with the GATE 2019 Admit Card. Candidates will **NOT** be permitted to take the examination, in case the admit card and valid original photo identification document are not presented during the examination.

For international candidates, ONLY a valid Passport/Government issued ID/College ID/Employee ID will be accepted as the recognized identification document.

4.4.5 Supporting Documents

(i) Eligibility Documents
Eligibility criteria and necessary details for the supporting documents are given in Table 4.1 and in the paragraphs that follow the table.

(ii) Category (SC/ST) Certificate
Candidates who belong to SC or ST category have to upload a valid documentary proof (for getting the concession in application fee). Certificate issued ONLY by the authorized officials will be valid **(refer to Appendix C, for a list of Authorities Empowered to Issue SC/ST Certificate)**. Necessary actions will be initiated for any wrongdoing and misinformation. The same document is required to be submitted to the admitting institution which admits student using GATE score at the time of admission. The onus of verifying SC/ST certificate lies with the admitting institute. The GATE committee will not be responsible for any incorrect declaration in this regard.

NOTE: OBC-NCL candidates are NOT required to submit/upload any category certificate while filling the online application form.

(iii) Person with Disability (PwD) Certificate
In order to avail the application fee concession under the Person with Disability (PwD) category, the candidates should attach a recently obtained and proper PwD certificate issued by the competent authority. Benefit would be given to those who have at least 40% impairment irrespective of the type of disability. The same document is required to be submitted to the admitting institution at the time of admission. The onus of verifying PwD certificate lies with the admitting institute. The GATE committee will not be responsible for any incorrect declaration of the PwD status of candidates.

Those PwD candidates who have physical limitation to take examination, including that of speed, may request for availing the services of a scribe. A scribe will be arranged by the GATE authorities.

(iv) Dyslexic Certificate
To avail the services of a scribe, the dyslexic candidates should attach a proper dyslexic certificate issued by any Dyslexia Association **(refer to Appendix C, for Authorities Empowered to Issue Dyslexic Certificate)**. The scribe will be provided by the GATE authorities. The same document

is required to be submitted to the admitting institution at the time of admission. The onus of verifying dyslexic certificate lies with the admitting institute. The GATE committee will not be responsible for any incorrect declaration of the dyslexic status of candidates.
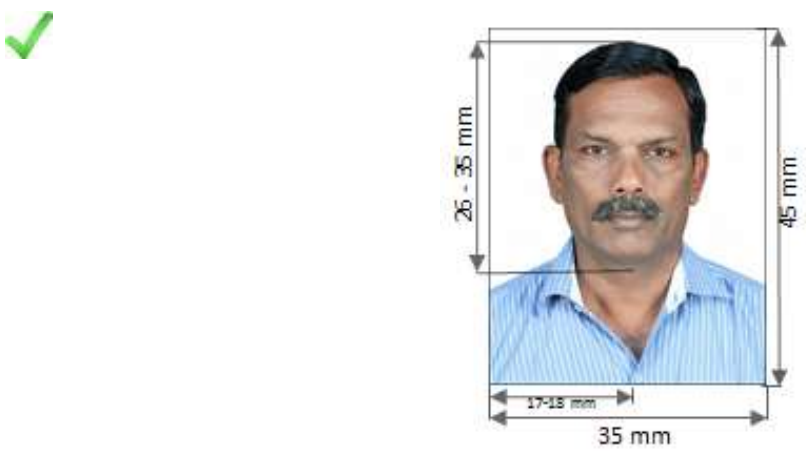
4.4.6 Photograph and Signature Requirements

The GATE 2019 application requires that your photograph and signature are to be uploaded electronically at GOAPS. Uploading photograph and signature that does not meet the specifications can result in the disqualification of the application without any refund of the application fee.

Photograph Requirements:

- **Please upload only good quality photograph. The GATE scorecard will be printed with the photograph that you have submitted.**

- **The photograph must match with your appearance on the day of the examination.**

- A passport size (3.5 cm Width × 4.5 cm Height) photograph of the face of the candidate is required for the application form.

- The photograph must be in **COLOR** and taken **after 01 August 2018** in a professional studio. Photographs taken using a mobile phone and other self-composed portraits may result in rejection of the application.

- Request photo studio to provide the image of your photo in a JPEG format and also on a standard 3.5 cm × 4.5 cm (Width × Height) print.

- **Maximum size for JPEG can be 480×640 in pixels (0.3 Mega pixel) (Request photo studio to reduce it to this resolution if it is higher).** Minimum size for JPEG should be 240×320 pixels.

- Background of the photograph must be **white** or a *light color*.

- The face should occupy at least 35% of the area of the photograph with a full-face view looking into the camera directly.

- The main features of the face must not be covered by hair of the head, any cloth or any shadow. Forehead, eyes, nose and chin should be clearly visible. The photograph should be without cap/ hat. The person in the photo must be facing the camera.

- If you normally wear spectacles, a photograph with glare on glasses is not acceptable in your photo. While you may wear spectacles for the photo shoot, **if the glare cannot be avoided**, then remove the spectacles. **In addition, you must not wear spectacles with dark or tinted glasses.**

- Poor quality of the photograph submitted will lead to rejection of your GATE application, without any refund of the application fee.

- Table 4.5 shows the samples of acceptable good quality photographs and poor quality unacceptable photographs.
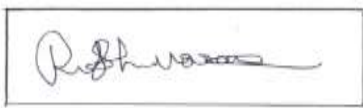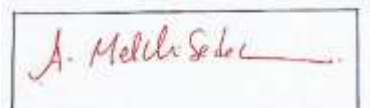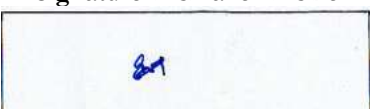
Table 4.5 Sample Photographs

A: Sample Photographs: Acceptable

B: Sample Photographs: Not Acceptable

Smaller in size (Not matching with a specified size of 35 mm width × 45 mm height)

Wearing colored glasses or sunglasses

Glare on spectacles

Improper background

Not facing the camera

Photo taken in dark background

Cropped from other photo

Face covered with cloth

Blurr image

Signature Specifications:

- Please draw a rectangular box of size 2 cm × 7 cm (Height × Width) on an A4 white paper. Sign with black or dark blue ink pen within this box. The height or width of the signature should be at least 80% of the respective height or width of the rectangular box.

- The signature by any other person or in any other color (other than black and blue) will NOT be accepted.

- Get the digital image of the rectangular box (with your signature inside) scanned by using a professional scanner. Crop it to the border of the box. Table 4.6 shows sample signatures which are acceptable and unacceptable.

- Only JPEG image format will be accepted.

- The maximum image size for the signature can be 160×560 in pixels.

- The minimum image size for the signature should be 80×280 in pixels.

- The signature must be signed only by the applicant and not by any other person.

- If the applicant's signature, at the time of examination, does not match the signature on the Admit Card, the applicant will be disqualified.

Table 4.6 Sample Signatures

Acceptable signatures	
✔ *A. Melchi Sedec .*	✔ *(signature)*
Unacceptable signatures	
Signature in other than blue or black ink	Signature outside the rectangular box
✖ *A. Melchi Sedec .*	✖ *A. Melchi Sedec .*
Signature in smaller in size	
✖ *8M*	*(signature)*
Signature in dark background	Signature in typing
✖ *(signature)*	✖ **A MELCHISEDEC**

4.4.7 Application Fee Payment Options

Details of the application fee are given in Table 4.4 . From the GOAPS portal, the candidate will be redirected to the payment gateway webpage, which provides the payment options. The fee can be paid with net-banking or debit/credit card.

The fee amount and bank charges will be shown to you, and you will have to confirm that the payment is for GATE 2019. Once you confirm and the payment is successful, you will be redirected back to the GOAPS website, from where you will be able to download the pdf copy of application form by clicking "Download Application Form" button.

If you have any difficulty (due to internet connection or power failure problems, for example), and you are not sure whether your payment has been processed or not, then please login back to GOAPS after some time and check the status of the payment.

You can also check the status of transaction from your bank account. In case, the fee amount has been debited (deducted) from your bank account, but GOAPS does not acknowledge any fee payment, then the money will be credited back to your account. However, this may take a week or more, after the closure of the application process.

In such a situation, you may initiate a fresh payment on GOAPS without waiting for the money to be credited back to your account. This will ensure that your application submission will be on time (within the deadline).

Before submitting the GATE 2019 Application Form, please ensure that all the details and all the necessary supporting documents are filled/uploaded and there is **NO ERROR** in that process. An application once submitted CANNOT be changed/rectified. **As a checklist the candidate MUST verify that he/she has filled in and uploaded the following information, whichever is applicable:**

- Personal information (name, date of birth, personal mobile number, parent's/guardian's name, parent's/guardian's mobile number, etc.).

- Address for Communication (including PIN code).

- Eligibility degree details (Roll No/ Registration No, College address, PIN code of college).

- Eligibility documents required to appear in GATE 2019 (e.g., degree certificate, Certificate from the Head of the Department/Institute, etc.).

- Category certificate (SC/ST/PwD) in case a concession in application fee is claimed.

- Good quality image of a recent photograph conforming to the requirements specified.

- Good quality image of signature conforming to the requirements specified.

- Details of the same valid ID Proof that will be carried to the examination hall.

Important: It is essential that the candidate fills-in the details in GOAPS without ANY ERROR. The application is liable to be REJECTED if there is any error.

4.5.   Application Scrutiny and Rectification

All the applications submitted for GATE 2019 examination will be scrutinized for the accuracy of the data, which include uploaded supporting documents, clarity of the photograph and signature. If everything is found to be in order, the application will be accepted. Otherwise, defects in the application will be marked and intimated to the candidate for rectification, which needs to be carried out within a stipulated time. The status of the application and defects identified in the application will be intimated to the candidates by an e-mail and/or SMS. The current status of an application will be updated after its receipt and scrutiny by the respective zonal GATE offices. The status of your application can be checked anytime by logging into GOAPS.

Candidates should act quickly in rectifying the defects in the application and definitely before the stipulated deadline. **Failing to rectify the defects within the stipulated time can lead to the rejection of the application and no further communication will be entertained in this regard.**

4.6.   Admit Card

The Admit Card for GATE 2019 will be available ONLY on GOAPS website. A candidate has to download his/her Admit Card from this website. The Admit Card would be available for download, tentatively from 4th January 2019. Note that the Admit Cards will **NOT** be sent to the candidates by post/e-mail.

Candidates must bring a print-out of the downloaded Admit Card to the Examination for the verification **along with** the original and valid photo Identity Document (NO photocopy/scanned copy/NOT an expired document), which was specified during the filling up of the online application (for example: **Passport, PAN card, Voter ID, Aadhaar-UID, College ID, Employee ID and Driving License**)

The Admit Card is valid if and ONLY if the candidate's photograph and signature images are clear and legible. The photograph on the Admit Card and that in the valid photo identity document should match with the appearance of the candidate on the day of examination. To ensure this, print the Admit Card on an A4 sized paper using a laser printer, preferably a color printer. **Both, the GATE 2019 Admit Card and the Original ID proof are essential for entry into the examination hall.**

5. GATE 2019 Examination Related Information

GATE 2019 examination will be conducted for 24 papers (subjects) as listed in Table 4.2. A candidate can appear for only one of the 24 GATE papers. The examination for all the papers will be conducted in an **ONLINE** Computer Based Test (CBT) mode where the candidates will be shown the questions on a computer screen.

A Virtual Scientific Calculator will be available on the computer screen during the examination. Candidates have to use the same during the examination. Personal calculators, wristwatches, mobile phones or any other electronic devices are **NOT allowed** inside the examination hall. Candidates should not bring any charts/tables/papers into the examination hall. GATE officials will not be responsible for the safe-keep of the candidates' personal belongings.

Scribble pads will be provided to the candidates for any rough work. The candidate has to write his/her name and registration number on the scribble pad before he/she starts using it. The scribble pad must be returned to the invigilator at the end of the examination.

Syllabus for each of the papers, previous years GATE (model) question papers, and mock examination links along with virtual scientific calculator will be available on GATE 2019 website: http://gate.iitm.ac.in

5.1.   Examination Duration

All the papers of the GATE 2019 examination will be for **3 hours** duration and they consist of **65** questions for a total of **100 marks**. Since the examination is an ONLINE computer based test, at the end of the stipulated time (3-hours), computer will automatically close the screen inhibiting any further action.

Candidates will be permitted to occupy their allotted seats **40 minutes** before the scheduled start of the examination. Candidates can login and start reading the instructions 20 minutes before the start of examination. **Candidates will NOT be permitted to enter the examination hall after 10:00 hours in the forenoon session and after 15:00 hours in the afternoon session. Candidates will NOT be permitted to leave the examination hall before the end of the examination.**

5.2.   GATE 2019 Question Papers

5.2.1 Pattern of Questions

GATE 2019 would contain questions of two different types in all the papers:

(i) Multiple Choice Questions (MCQ) carrying **1** or **2** marks each in all the papers and sections. These questions are objective in nature, and each will have a choice of four answers, out of which the candidate has to select (mark) the correct answer.

Negative Marking for Wrong Answers: For a wrong answer chosen in a MCQ, there will be negative marking. For **1-mark** MCQ, **1/3** mark will be deducted for a wrong answer. Likewise, for **2-mark** MCQ, **2/3** mark will be deducted for a wrong answer.

(ii) **Numerical Answer Type** (NAT) Questions carrying **1** or **2** marks each in all the papers and sections. For these questions, the answer is a signed real number, which needs to be entered by the candidate using the virtual numeric keypad on the monitor (keyboard of the computer will be disabled). No choices will be shown for these type of questions. The answer can be a number such as **10** or **-10** (an integer only). The answer may be in decimals as well, for example, **10.1** (one decimal) or **10.01** (two decimals) or **-10.001** (three decimals). These questions will be mentioned with, up to which decimal places, the candidates need to present the answer. Also, for some NAT type problems an appropriate range will be considered while evaluating the numerical answer type questions so that the candidate is not unduly penalized due to the usual round-off errors. Wherever required and possible, it is better to give NAT answer up to a maximum of three decimal places.

There is NO negative marking for a wrong answer in NAT questions.

5.2.2 Marks

In all the papers, there will be a total of **65** questions carrying **100** marks, out of which **10** questions carrying a total of **15** marks will be on General Aptitude (GA), which is intended to test the Language and Analytical Skills.

In the papers bearing the codes AE, AG, BT, CE, CH, CS, EC, EE, IN, ME, MN, MT, PE, PI, TF and XE, the Engineering Mathematics will carry around **15%** of the total marks, the General Aptitude section will carry **15%** of the total marks and the remaining **70%** of the total marks is devoted to the subject of the paper.

In the papers bearing the codes AR, CY, EY, GG, MA, PH, ST and XL, the General Aptitude section will carry **15%** of the total marks and the remaining **85%** of the total marks is devoted to the subject of the paper.

5.2.3 Design of Questions

The questions in a paper may be designed to test the following abilities:

(i) **Recall**: These are based on facts, principles, formulae or laws in the discipline of the paper. The candidate is expected to be able to obtain the answer either from his/her memory of the subject or at most from a one-line computation.

Example:
Q. During machining, maximum heat is produced
(A) in flank face   (B) in rake face
(C) in shear zone   (D) due to friction between chip and tool

(ii) **Comprehension**: These questions will test the candidate's understanding of the basics of his/her field, by requiring him/her to draw simple conclusions from fundamental ideas.

Example
Q. A DC motor requires a starter in order to
(A) develop a starting torque   (B) compensate for auxiliary field ampere turns
(C) limit armature current at starting   (D) provide regenerative braking

(iii) **Application**: In these questions, the candidate is expected to apply his/her knowledge either through computation or by logical reasoning.

Example
Q. The sequent depth ratio of a hydraulic jump in a rectangular channel is 16.48. The Froude number at the beginning of the jump is:

(A) 5.0   (B) 8.0   (C) 10.0   (D) 12.0

The questions based on the above logics may be a mix of single standalone statement/phrase/data type questions, combination of option codes type questions or match items type questions.

(iv) **Analysis and Synthesis:** In these questions, the candidate is presented with data, diagrams, images, etc. that require analysis before a question can be answered. A Synthesis question might require the candidate to compare two or more pieces of information. Questions in this category

could, for example, involve candidates in recognizing unstated assumptions, or separating useful information from irrelevant information.

5.3. Marking Scheme – Distribution of Marks and Questions

5.3.1 General Aptitude (GA) Questions

In all papers, GA questions carry a total of **15 marks**. The GA section includes **5** questions carrying **1-mark** each (sub-total **5 marks**) and **5** questions carrying **2-marks** each (sub-total **10 marks**).

5.3.2 Question Papers other than GG, XE and XL

These papers would contain **25** questions carrying **1-mark** each (sub-total **25 marks**) and **30** questions carrying **2-marks** each (sub-total **60 marks**) consisting of both the MCQ and NAT Questions.

5.3.3 GG (Geology and Geophysics) Paper

Apart from the General Aptitude (GA) section, the GG question paper consists of two parts: **Part A** and **Part B**. **Part A** is compulsory for all the candidates. **Part B** contains two sections: Section 1 (Geology) and Section 2 (Geophysics). Candidates will have to attempt questions in **Part A** and questions in either Section 1 or Section 2 of **Part B**.

Part A consists of **25** questions carrying **1-mark** each (sub-total **25 marks** and some of these may be numerical answer type questions). Either section of **Part B** (Section 1 and Section 2) consists of **30** questions carrying **2-marks** each (sub-total **60 marks** and some of these may be numerical answer type questions).

5.3.4 XE Paper (Engineering Sciences)

A candidate appearing in the XE paper has to answer the following:

- **GA – General Aptitude** carrying a total of **15 marks**.

- **Section A – Engineering Mathematics (Compulsory):** This section contains **11** questions carrying a total of **15 marks**: **7** questions carrying **1-mark** each (sub-total **7 marks**), and **4** questions carrying **2-marks** each (sub-total **8 marks**). Some questions may be of numerical answer type.

- **Any two of XE Sections B to H:** The choice of two sections from B to H can be made during the examination after viewing the questions. Only TWO optional sections can be answered at a time. A candidate wishing to change midway of the examination to another optional section must first choose to deselect one of the previously chosen optional sections (B to H). Each of the optional sections of the XE paper (Sections B through H) contains **22** questions carrying a total of **35 marks**: **9** questions carrying **1-mark** each (sub-total **9 marks**) and **13** questions carrying **2-marks** each (sub-total **26 marks**). Some questions may be of numerical answer type.

5.3.5 XL Paper (Life Sciences)

A candidate appearing in the XL paper has to answer the following:

- **GA – General Aptitude** carrying a total of **15 marks**.

- **Section P– Chemistry (Compulsory):** This section contains **15** questions carrying a total of **25 marks**: **5** questions carrying **1-mark** each (sub-total **5 marks**) and **10** questions carrying **2-marks** each (sub-total **20 marks**). Some questions may be of numerical answer type.

- **Any two of XL Sections Q to U:** The choice of two sections from Q to U can be made during the examination after viewing the questions. Only TWO optional sections can be answered at a time. A candidate wishing to change midway of the examination to another optional section must first choose to deselect one of the previously chosen optional sections (Q to U). Each of the optional sections of the XL paper (Sections Q through U) contains **20** questions carrying a total of **30 marks**: **10** questions carrying **1-mark** each (sub-total **10 marks**) and **10** questions carrying **2-marks** each (sub-total **20 marks**). Some questions may be of numerical answer type.

6. Post-Examination Related Information

Post examination events are as follows:

1. After the GATE 2019 examinations, candidates' responses will be available at GOAPS, which can be downloaded.

2. Answer keys for various GATE 2019 papers will be displayed in GATE 2019 website.

3. Candidates may submit their contests on the answer keys provided for a very limited time period against a payment.

4. Evaluation of examination papers will be finalized and GATE results (Score) will be announced.

5. GATE 2019 scorecard will be made available for the qualified candidates from GOAPS.

6.1. GATE Score

After the evaluation of the answers, the actual (raw) marks obtained by a candidate will be considered for computing the GATE Score. For multi-session papers (subjects), raw marks obtained by the candidates in different sessions will be converted to Normalized marks for that particular subject. Thus, raw marks (for single session papers) or normalized marks (for multi-session papers) will be used for computing the GATE Score, based on the qualifying marks.

6.1.1 Calculation of Normalized Marks for Multi-session Papers

In GATE 2019, examination for some papers may be conducted in multi-sessions. Hence, for these papers, a suitable normalization is applied to take into account any variation in the difficulty levels of the question papers across different sessions. The normalization is done based on the fundamental assumption that "in all multi-session GATE papers, the distribution of abilities of candidates is the same across all the sessions". This assumption is justified since the number of candidates appearing in multi-session papers in GATE 2019 is large and the procedure for allocation of session to candidates is random. Further, it is also ensured that for the same multi-session paper, the number of candidates allotted in each session is of the same order of magnitude.

Based on the above, and considering various normalization methods, the committee arrived at the following formula for calculating the normalized marks for the multi-session papers.

Normalization mark of jth candidate in the ith session $\widehat{M}_{ij}$ is given by

$$\widehat{M}_{ij} = \frac{\overline{M}_t^g - M_q^g}{\overline{M}_{ti} - M_{iq}}\left(M_{ij} - M_{iq}\right) + M_q^g$$

where

M_{ij}: is the actual marks obtained by the jth candidate in i^{th} session

$\overline{M}_t^g$: is the average marks of the top 0.1% of the candidates considering all sessions

M_q^g: is the sum of mean and standard deviation marks of the candidates in the paper considering all sessions

$\overline{M}_{ti}$: is the average marks of the top 0.1% of the candidates in the ith session

M_{iq}: is the sum of the mean marks and standard deviation of the ith session

6.1.2 Calculation of GATE Score for All Papers

For all papers for which there is only one session, actual marks obtained by the candidates will be used for calculating the GATE 2019 Score. For papers in multi-sessions, normalized marks will be calculated corresponding to the raw marks obtained by a candidate and the GATE 2019 Score will be calculated based on the normalized marks.

The GATE 2019 score will be computed using the formula given below.

$$GATE\ Score = S_q + (S_t - S_q)\frac{(M - M_q)}{(\overline{M}_t - M_q)}$$

In the above formulae

M: marks obtained by the candidate (actual marks for single session papers and normalized marks for multi-session papers)

M_q: is the qualifying marks for general category candidate in the paper

$\overline{M}_t$: is the mean of marks of top 0.1% or top 10 (whichever is larger) of the candidates who appeared in the paper (in case of multi-session papers including all sessions)

S_q: 350, is the score assigned to M_q

S_t: 900, is the score assigned to $\overline{M}_t$

In the GATE 2019 the qualifying marks (M_q) for general category student in each subject will be 25 marks (out of 100) or $\mu + \sigma$, whichever is larger. Here μ is the mean and σ is the standard deviation of marks of all the candidates who appeared in the paper.

After the declaration of results, GATE Score cards can be downloaded by the **GATE qualified candidates ONLY**.

The GATE 2019 Committee has the authority to decide the qualifying mark/score for each GATE paper. In case of any claim or dispute with respect to GATE 2019 examination or score, the Courts and Tribunals in Chennai alone will have the exclusive jurisdiction to entertain and settle them.

6.2.   GATE 2019 Results

GATE 2019 **results will be announced on the 16th March 2019** and will be available on the GOAPS Website. GATE 2019 score is valid for **THREE YEARS** from the date of announcement of the results.

6.3.   GATE 2019 Scorecard

After the declaration of results, the qualified candidates can download their GATE 2019 Scorecards (for the paper which candidates have taken the examination). The GATE 2019 scorecards can be downloaded between 20 March 2019 to 31 May 2019 from the GOAPS portal.

In case, a GATE qualified candidate requires the soft copy of his/her GATE Scorecard after 31 May 2019 and till 31 December 2019, should pay a fee of ₹ 500 (Rupees five hundred only) for obtaining the same.

There is no provision for the issue of hard copies of the GATE Scorecards.

7. GATE 2019 at International Centres

GATE 2019 examinations will be conducted in the following cities outside india: Addis Ababa (Ethiopia), Colombo (Sri Lanka), Dhaka (Bangladesh), Dubai (UAE), Kathmandu (Nepal) and Singapore. The application fee for Dubai (UAE) and Singapore centres is US$ 100; and for the remaining it is US$ 50. Candidates of any nationality can opt for international centres.

- Candidates who have obtained/are pursuing their qualifying degree from countries other than India: (i) must have completed or are in the final year of their Bachelor's degree (duration: at least 4 years) in Engineering/Technology or; (ii) must have completed or are in the final year of their Post Graduate (Master's) degree (duration: at least 2 years) in any relevant science subject.

- For candidates at international centres, ONLY a valid Passport/Government issued ID/College ID/Employee ID will be accepted as the recognized identification.

- For Foreign nationals, SC/ST/PwD categories are NOT APPLICABLE.

- The session timing at GATE International Centres will be as per their local time and it will be notified well in advance.

- The application procedure remains same for Foreign nationals as that of Indian nationals.

- The candidates opting for international examination centres will be contacted only through their e-mail. However, mobile numbers can be used only when the GATE 2019 Organizing Institute intends to communicate an important information to them.

8. Frequently Asked Questions (FAQs)

8.1. Application Process

Can I appear in any of the GATE 2019 papers?

The candidate is expected to appear in a paper appropriate to the discipline of his/her qualifying degree. The candidate can also choose any other papers of GATE 2019, however, it is better to choose a paper in line with the eligibility criteria of the institutions/organizations in which he/she wishes to seek admission/job.

How do I apply ONLINE?

Refer to Section 4.4.2 given in the GATE 2019 Brochure and by visiting the website https://appsgate.iitm.ac.in

Can I use one e-mail address to fill multiple application forms?

NO. One e-mail address can be used to submit only ONE application form. Candidates are discouraged to fill multiple application forms using different e-mail addresses.

Why should I choose three examination cities?

A candidate will most likely be allotted a centre in the examination city of his/her first choice. Only in cases, where there are too many candidates opting for a certain city as their first choice, the other two choices become relevant. A candidate is required to fill his/her choices of cities to appear in the examination, but should remember that because of operational constraints, the GATE committee reserves the right to add a new city or remove an existing one, and allot a city that may not be any of the choices of a candidate. For candidates opting for international centres, there will be only one choice (by default).

What do I do, if the power/internet connection failed during the submission of application process?

Please login to the GOAPS website again and continue the application process.

Only SC/ST/PwD candidates have been asked to upload the category certificates. What about the OBC (non-creamy layer) candidates ? Do they have to upload the category certificate too?

NO. Category certificate is required only for Indian nationals (appearing from exam centres within India), who wishes to avail a concession in application fee. As far as the GATE 2019 examination is concerned, only SC/ST/PwD candidates and all women candidates are eligible for application fee concession.

How do I make the fee payment for GATE 2019 examination?

There is a link to the payment gateway from the application portal. The candidate can opt for any of the payment options listed over there. The additional charges such as service charges, processing fees or bank charges, have to be borne by the candidate.

What is the fee for candidates with foreign nationality?

For the candidates with Foreign nationality, who wish to appear for GATE 2019 examination, the application fee is as follows:

Examination Centres	On or before 21st Sept. 2018	During the Extended Period
Centres in India	₹ 1500	₹ 2000
Addis Ababa, Colombo, Dhaka and Kathmandu	US$ 50	US$ 70
Dubai and Singapore	US$ 100	US$ 120

What is the fee for candidates with Indian nationality appearing at International centres?

For the candidates with Indian nationality, who wish to appear for GATE 2019 examination, the application fee (irrespective of their category and gender) is as follows:

Examination Centres	On or before 21st Sept. 2018	During the Extended Period
Addis Ababa, Colombo, Dhaka and Kathmandu	US$ 50	US$ 70
Dubai and Singapore	US$ 100	US$ 120

What do I do, if power/Internet connection failed during an online payment?

When you can get back online, login back to GOAPS website and check the status of the payment. If the payment was received by GATE, you can continue the process of printing the application form.

If the payment was not received by GATE, you can also check the status of transaction from your bank account. In case, the fee amount has been debited (deducted) from your bank account, but GOAPS does not acknowledge any fee payment, then the money will be credited back to your account. However, this may take a week or more, after the closure of the application process.

In such a situation, you may initiate a fresh payment on GOAPS without waiting for the money to be credited back to your account. This will ensure that your application submission will be on time (within the deadline).

My net banking account has been debited more than once. How do I get the money back?

Any unaccounted or excess money that was received on behalf of GATE 2019 from this account, will automatically be returned (credited) to the same bank account. However, this may take a week or more, after the closure of the application process.

My bank account has been debited (money taken out), but GOAPS website says that the payment has not been received. What do I do?

Please login back to GOAPS **after some time** and check the status of the payment. Even then, if GOAPS does not acknowledge any fee payment, the money will be credited back to your account.

However, this may take a week or more, after the closure of the application process. In such a situation, you may initiate a fresh payment on GOAPS without waiting for the money to be credited back to your account. This will ensure that your application submission will be on time (within the deadline). Finally, you will be charged only once. Any excess/unaccounted debits will be returned back to you.

Do I have to send the print-out of the application form?

NO. The print-out of the application form is **not** required to be sent to the Organizing Institute (IIT Madras) or any other GATE zonal offices.

When and how will I know the status of my application?

You can check the status of your application by logging into GOAPS website.

After completing the ONLINE application process and generating a PDF file, will I be able to change my application data?

NO. After completing all the steps upto PDF application form generation in the ONLINE application process, you can only download the application form and CANNOT modify the data. Hence, you need to be very careful while entering the data.

I have missed to take a print-out of my ONLINE application at the end of my application process. How will I get access to it?

You can login using GOAPS Enrollment ID and password and take a print-out for your own reference. The print-out must not be sent to GATE Organizing Institute.

If I have not uploaded photograph as per the specifications mentioned, will my application be rejected?

YES, the application will be rejected.

Which Identity Document (ID) will be accepted in the application form?

For Indian candidates, the following identification documents/cards will be accepted: **Passport, PAN Card, Voter ID, Aadhaar-UID, College ID, Employee ID and Driving License.** For International candidates, **ONLY valid Passport/Government issued ID/College ID/Employee ID will be accepted as the recognized identification.**

If I am in the final year of my qualifying degree program, what certificate do I upload?

If a candidate is in the final year of the qualifying degree program, a **Certificate from the Head of the Department/Institute** (in the format given in Appendix A), must be uploaded.

If I have completed the degree in 2018, but my institute has still not provided me with the degree certificate/provisional certificate, which document should I upload as eligibility certificate?

In case, the degree certificate/provisional certificate has not been issued at the time of application, final year marksheet (of any one semester) must be uploaded as eligibility document.

I have backlogs/arrears during the qualifying degree program, due to which I did not complete the program. I am currently not studying in the college and therefore cannot get duly signed Certificate from the Head of the Department/Institute. Which document should I upload while filling the application form?

If you cannot get a duly signed Certificate from the Head of the Department/Institute, you should submit final year marksheet (of any one semester), even if there are backlogs/arrears in some subjects.

Is the downloaded marksheet (from internet) acceptable as an eligibility document?

Yes, internet downloaded final year marksheet (of any one semester), which is **digitally signed** or duly signed with seal by competent authority (Registrar, Controller of Examination etc.) **ONLY**, is acceptable.

I am studying / have completed an eligible degree course in the University / Institute and not in any of the college. In such a case, how to fill the filed concerning the College name in the application form?.

Please type University / Institute name in case if your course is directly affiliated to the University / Institute and not to any of the college.

My University/ Institute name is not appearing in the pop-up list?

You may type the name of the University / Institute as it appears in your eligibility document.

My College / Institute name is not appearing in the pop-up list of College name?

You may type the name of your College/ Institute as it appear in your eligibility document.

My name is not correctly printed on the eligibility Document?

Along with your eligibility document, submit valid proof concerning your name.

8.2. Admit Card

When will I receive my Admit Card?

Admit Card can ONLY be downloaded from the GOAPS website from 4th January 2019. Admit Cards will NOT be sent by post or as an e-mail attachment.

Is the Admit Card alone sufficient to gain entry to the examination centre?

NO. Candidates must bring a print-out of the downloaded Admit Card to the Examination for the verification **along with** the original and valid photo Identity Document (NO photocopy/scanned copy/NOT an expired document), which was specified during the filling up of the online application. **For Indian candidates**, only following identification cards will be accepted: Passport, PAN card, Voter ID, Aadhaar-UID, College ID, Employee ID and Driving License. **For International candidates,** ONLY a valid Passport/Government issued ID/College ID/Employee ID will be accepted as the recognized identification.

The Admit Card is valid if and ONLY if the candidate's photograph and signature images are clear and legible. The photograph on the Admit Card and that in the valid photo identity document should match with the appearance of the candidate on the day of examination.

Can I bring soft copy of the Admit Card (in mobile phone/tablet/laptop) to gain entry to the examination centre?

NO. Hard copy (preferably printed in color) of the Admit Card must be brought to the examination centre along with at least one original (not photocopied/scanned copy) and valid (not expired) **Identity Document (ID)**, which was specified during the filling up of the online application.

8.3. GATE 2019 Examination

For how many GATE papers can I apply?

A candidate can apply for only ONE of the 24 papers listed in the GATE INFORMATION BROCHURE or GATE website. The choice of the appropriate paper is the responsibility of the candidate. Some guidelines in this respect are suggested below:

- The candidate is expected to appear in a paper appropriate to the discipline of his/her qualifying degree.

- The candidate is, however, free to choose any other paper according to his/her admission plan, keeping in mind the eligibility criteria of the institutions in which he/she wishes to seek admission.

After submission of application, am I permitted to change my GATE Examination Paper?

NO. Requests for the change of GATE Examination paper after the submission of Application Form WILL NOT be permitted.

After submission of application, am I permitted to change my GATE Examination City?

YES. ONLY after the last date for application submission, a request for the change of examination city will be entertained **against payment**. A specific time period for the same will be notified in the GATE 2019 website.

Will I be provided with any white paper for rough work and calculations during the examination?

A scribble pad will be provided to the candidate that can be used to do the rough work. The candidate has to return the scribble pad after the examination.

Am I allowed to leave the examination hall during the examination?

NO. Candidates will NOT be allowed to leave the examination hall for any reason during the examination. Candidates are allowed to leave the examination hall only after the scheduled end of examination.

What items are not permitted to be brought with me inside the examination venue?

Only Admit Card, Identification Card and a pen is permitted to be taken inside the examination hall. Mobile phones, physical calculators, wristwatches, or any other electronic items are NOT permitted inside the examination hall. If a candidate brings any of these items, they have to be kept outside the examination hall at the candidate's own risk. If the candidate is found to be in possession of these items (even if not using them), he/she will be disqualified and the result will not be declared for the candidate.

Can I use a physical calculator during the examination?

NO. During the online GATE 2019 examination, all candidates will be provided with a virtual scientific calculator which has to be used to answer the questions. Mobile phones, physical calculators, wristwatches, or any other electronic items are NOT permitted inside the examination hall.

Will there be any arrangement at the examination centre for the safe keeping of my personal items such as my mobile phone?

NO. Such arrangements will not be made at the examination centre. If a candidate brings personal belongings including mobile phones, they have to be kept outside the examination hall at the candidate's own risk. The GATE officials are not responsible for safe keeping of your personal items.

What happens if a physical calculator (even on an electronic watch) or a mobile phone (even in switched off mode) is found in my possession in the examination hall?

Such cases will naturally constitute violation of GATE 2019 code of conduct (as given in Appendix D) and will lead to disqualification of the candidature.

8.4. PwD and Dyslexic Candidates

What are the details of the guidelines that will be followed about PwD candidates writing GATE 2019 examination?

GATE 2019 will follow the guidelines as mentioned in the government regulations.

Please refer to:

1) http://www.ccdisabilities.nic.in/content/en/docs/omguide.pdf and

2) http://www.ccdisabilities.nic.in/content/en/docs/CCDLetters.pdf

3) Guidelines for conducting written examination for Persons with Disabilities issued vide O.M. NO.F.No. 16-110/2003-DD.III,Dated: 26th February, 2013

4) "Guidelines for persons with Benchmark Disabilities" issued vide O.M. No. 34-02/2015-DD-III dated 29.08.2018.

Will the facility of scribe and/or compensatory (extra) time be given to all PwD candidates?

Please refer to http://www.ccdisabilities.nic.in/content/en/docs/CCDLetters.pdf (in particular to the fifth page of the document) for the clarification issued by CCPD on 18.03.2013. "The facility of scribe is meant for only those PwD candidates who have physical limitation to visualize / write including that of speed. The scribe will be provided by the GATE authorities. The compensatory (extra) time would be applicable only to such candidates."

The assistance that the Scribe can render to the candidate consists of ONLY reading the instructions and test paper displayed on the computer screen verbatim and in mouse-clicks, if the candidate is not able to do so.

- The Scribe shall not translate/interpret/emphasize the Test Paper Contents to the Candidate.

- The Scribe can either be arranged by the candidate or provided by GATE.

- The Scribe should not be a candidate for a test paper in GATE 2019. According to the GoI (Government of India) guidelines, in case the candidate wants to bring his/her Scribe, then the qualification of the Scribe should be one step below the qualification of the candidate taking the examination. In case, the candidate requests for arranging a Scribe assistance from GATE, then the qualification of the Scribe will not be more than the minimum eligibility criteria of GATE. However, the qualification of the Scribe will be matriculation or above.

- Both the candidate and Scribe need to sign a declaration form.

- Candidates are permitted to visit the Exam Centre a day before the examination to see and get familiarized with the arrangements.

If I arrange my own Scribe to assist me during the GATE 2019 examination, then what should be the maximum qualification of the Scribe?

Based on the Clause VI of the guidelines (O.M. No. 34-02/2015-DD-III dated 29.08.2018), if the candidate is allowed to bring his own scribe, the qualification of the scribe should be one step below the qualification of the candidate taking the examination. The term 'qualification' even in its ordinary meaning denotes an official completion of some course and which confers some status. A person cannot be deemed to possess a qualification unless he/she completes it. In other words, being a student of a course, in whichever year that may be, does not confer any status on the student, unless the student qualifies, by completing the course.

By way of example, let us assume that the candidate A is a person who has completed 12th standard, then is pursuing B.Tech course and is in the the 4th/Final year. On the date of the examination, the candidate A's qualification is only 12th standard. So one step below qualification would be 10th Standard/ matriculation (highest qualification), as 11th standard does not create any legal status.

Candidate B, possesses a B.Sc Degree (completed) and is presently pursuing final year of B.Tech. or M.Sc. program, then one step below qualification would be 12th Standard and Candidate B can have a scribe who is 12th Standard qualified (highest qualification), which could then include B.Tech./B.Sc. students.

Will there be a "magnified question paper" for visually challenged PwD candidates?

YES. Once you reach the examination hall, please contact the GATE Institute Representative through the invigilator in your examination hall and he/she will do the needful.

Will the facility of scribe and/or compensatory (extra) time be given to dyslexic candidates?

Yes, dyslexic candidates can avail the services of scribe, provided such candidates submit a proper dyslexic certificate issued by the competent authorities. The compensatory (extra) time would be applicable only to such dyslexic candidates availing the scribe facility.

The assistance that the Scribe can render to the candidate consists of ONLY reading the instructions and test paper displayed on the computer screen verbatim and in mouse-clicks, if the candidate is not able to do so.

- The Scribe shall not translate/interpret/emphasize the Test Paper Contents to the Candidate.

- The Scribe can either be arranged by the candidate or provided by GATE.

- The Scribe should not be a candidate for a test paper in GATE 2019. According to the GoI guidelines, in case the candidate wants to bring his/her Scribe, then the qualification of the Scribe should be one step below the qualification of the candidate taking the examination. In case, the candidate requests for arranging a Scribe assistance from GATE, then the qualification of the Scribe will not be more than the minimum eligibility criteria of GATE. However, the qualification of the Scribe will be matriculation or above.

- Both the candidate and Scribe need to sign a declaration form.

- Candidates are permitted to visit the Exam Centre a day before the examination to see and get familiarized with the arrangements.

I have some other learning disabilities similar to Dyslexia, such as Dyspraxia / Dyscalculia / Dysgraphia. In such case, how shall I indicate in the application form?

Please select the button with "Candidate with Dyslexia / similar learning disabilities".

I have some other learning disabilities similar to Dyslexia, such as Dyspraxia / Dyscalculia / Dysgraphia. In such case, can I avail the services of a scribe?.

To avail the services of a scribe, the candidate with dyslexia / similar learning disabilities should attach a proper dyslexic certificate issued by any Dyslexia Association (refer to Appendix C, for Authorities Empowered to Issue certificate concerning Dyslexic / similar learning disabilities).

Whether GATE can provide any assistive devices for PwD candidates?

Assistive Devices: PwD candidates, if required can use assistive devices like Abacus, Braille slate, Wheel chair etc. PwD candidates desiring to make use of these devices have to arrange them, on their own and bring along with them, to the examination. GATE is not in a position to provide any of these assistive devices. However, since GATE 2019 is a Computer Based Test, candidate will be given an option to view the content on the computer screen in a magnified font.

Candidates are permitted to visit the Exam Centre a day before the examination to see and get familiarized with the arrangements.

9. Contact Information

GATE is jointly administered and conducted by the Indian Institute of Science and seven Indian Institutes of Technology. Table 9.1 gives the details of each Zonal Office. Each of the institutes administer a zone and caters to a list of examination cities that fall under that zone (Table 4.3). Candidates are assigned a zone at the time of application, based on the first choice of city. Candidates must note this zone number for future references. Any queries regarding the application, examination centre, Admit Card, and result are handled by the GATE 2019 Organizing Institute.

Candidates must first try to read FAQs. If a query is not resolved even after going through FAQs, then they should contact the zonal GATE offices, which will provide quicker and clearer information.

Table 9.1 Contact details for Zonal GATE Offices

Zone	Contact Address	Phone Number	Email ID
1	Chairman, GATE Indian Institute of Science, Bengaluru 560 012	080-22932392 080-23601227	gate@gate.iisc.ac.in
2	Chairman, GATE Indian Institute of Technology Bombay, Powai, Mumbai 400 076	022-25767068	gateoffice@iitb.ac.in
3	Chairman, GATE Indian Institute of Technology Delhi, Hauz Khas, New Delhi 110 016	011-26591749 011-26596137	chrgate@admin.iitd.ac.in
4	Chairman, GATE Indian Institute of Technology Guwahati, Guwahati 781 039	0361-2582751 0361-2582755	gate@iitg.ac.in
5	Chairman, GATE Indian Institute of Technology Kanpur, Kanpur 208 016	0512-2597412	gate@iitk.ac.in
6	Chairman, GATE Indian Institute of Technology Kharagpur, Kharagpur 721 302	03222-282091 03222-282095	gate@adm.iitkgp.ac.in
7	Chairman, GATE Indian Institute of Technology Madras, Chennai 600 036	044-22578200	gate@iitm.ac.in
8	Chairman, GATE Indian Institute of Technology Roorkee, Roorkee 247 667	01332-284531	gate@iitr.ac.in

Appendix A

Certificate from Head of the Department/Institute
(Eligibility Document for GATE 2019 Application)

This is to certify that Mr. / Ms. ………………………………….…………...

S/o or D/o …………………………….…………… is a student enrolled

in the Department of ……………………………………………. at the

Institute/ College ……………….….............………….... for the program

as per the details given below:

<div style="border:1px solid">

Paste Recent Photo of the Candidate

(Passport Size)

</div>

Do not attest Do not sign on photo

1. Roll No/ Registration No./ Student ID : ………………..….….…..

2. The student is in the final year of ………………........(☐ B.E./ ☐ B.Tech / ☐ B.S./ ☐ B.Sc Research / ☐ MSc / ☐ Integrated M.Sc / ☐ B.Arch / ☐ M.C.A).

<div align="center">OR</div>

The student is in the final / pre-final year of ………………..(☐ M.E./ ☐ M.Tech / ☐ Dual Degree/ ☐ Integrated M.E./ M.Tech) .

3. Duration of the program which the student is studying :…………. Years

4. The student is pursuing the undergraduate program on lateral entry: ☐ Yes / ☐ No (After completing B.Sc. / Diploma in Engineering or Technology)

Signature of the Candidate with date:

Signature of the Head of the Department / Institute with seal

Date:

Note: Without signature of the Head of the Department/Institute & seal, the certificate is not valid.

Appendix B

Qualifying Disciplines for Eligibility Degrees

Disciplines: Engineering/Technology		
Aeronautical Engg.	Electrical Instrumentation & Control Engg.	Manufacturing Engg.
Aerospace Engg	Electrical and Mechanical Engg.	Manufacturing Science & Engg.
Aircraft Maintenance Engg	Electrical and Power Engineering	Manufacturing Technology
Agricultural Engg.	Electro-Chemical Engg.	Marine Engg. / Technology
Agricultural Technology	Electronics Engg.	Material Science and Engg. / Technology
Architecture/ Architectural Engg.	Electronics & Biomedical Engg.	Mechanical Engg.
Architecture & Interior Design / Decoration	Electronics Communication & Instrumentation	Mechatronics
Automation & Robotics	Electronics & Computer Engg.	Mechatronics & Automation Engg.
Automobile Engg.	Electronics & Communication	Medical Electronics / Engg.
Automobile Maintenance Engg.	Electronics & Telecommunication	Medical Instrumentation
Biochemical Engg.	Electronics & Power	Metallurgical Engg.
Biomedical Engg.	Energy Engg.	Military Engg.
Biomedical Instrumentation	Energy & Environmental Engg.	Mineral Engg. / Mineral Dressing
Biotechnology	Environmental Engg.	Mining Engg. / Technology, Mining & Machinery
Cement & Ceramic Technology	Environmental Science & Technology	Nano Technology & Robotics
Ceramic Engg. & Technology	Environmental Planning	Naval Architecture /Marine Engg.
Ceramic & Glass Technology	Environment & Pollution Control	Oil Technology
Chemical Engg.	Fashion Technology / Fashion & Apparel Technology	Optics & Optoelectronics
Chemical Technology	Fibres & Textiles Processing Technology	Paint Technology
Civil Engg	Fire Engg. / Technology & Safety	Petro-Chemical Engg.
Civil & Environmental Engg	Food Engg. & Technology.	Petroleum Engg. / Technology
Civil & Structural Engg.	Food Processing Engg / Processing & Preservation Engg.	Petroleum Refinery Engg.
Civil & Construction Engg.	Industrial Technology	Planning (Environmental / Infrastructure / Urban & Regional/ Urban Regeneration)
Civil and Infrastructure Engineering	Industrial Engg.	Plastic Engg. / Technology
Civil & Water Resource Management	Industrial Management	Polymer Engg. / Science /Technology
Computer Engg.	Industrial Metallurgy	Polymer Science & Chemical Technology
Computer Science & Engg.	Information & Communication Technology	Power Electronics / Power Electronics Engg.
Computer Science & Technology	Information Engineering	Power Engg.
Computer Science & Information Technology	Information Technology	Printing & Packing Technology
Communication Engg.	Instrumentation & Process Control/ Engineering	Production & Industrial Engg.
Control & Instrumentation	Instrumentation Engg. / Technology	Renewable Energy
Construction Engg. & Management	Instrumentation & Process Control	Robotics & Automation
Dairy Engg. / Technology	Leather / Foot Wear Technology	Rubber Technology
Electrical Engg.	Machine Engg.	Telecommunication Engg.
Electrical and Electronics Engg.	Man-Made Fibre / Textile Technology	Textile Engg. / Technology
Electrical and Instrumentation Engg.		

Disciplines: Science		
Agricultural Science	Engineering Physics	Nano Science & Technology
Applied Electronics	Geology / Geophysics	Nuclear Science & Technology
Applied Mathematics	Geo Informatics	Nuclear Physics
Applied Mechanics	Industrial Chemistry	Operations Research
Applied Physics	Information Science	Pharmaceuticals Chemistry & Technology
Biochemistry	Life Sciences (Botany)	Pharmaceutical Sciences / Pharmacy
Bio-Sciences	Life Sciences (Zoology)	Physics
Chemistry	Life Science / Veterinary / Animal Science	Radio Physics
Computer Applications	Materials Science	Radio Physics & Electronics
Earth Sciences	Mathematics	Statistics
Electronics	Mathematics & Computing	Textile Chemistry
Electronics & Computer Science	Microbiology	Urban Transportation Planning & Management

Appendix C

Authorities Empowered to Issue SC/ST Certificates

- District Magistrate/Additional District Magistrate/Collector/Deputy Collector/Deputy Commissioner/Additional Deputy Commissioner/1st Class Stipendiary Magistrate/City Magistrate/Sub-Divisional Magistrate/Taluk Magistrate/Executive Magistrate/Extra Assistant Commissioner.

- Chief Presidency Magistrate/Additional Chief Presidency Magistrate/Presidency Magistrate

- Revenue Officer not below the rank of Tahsildar

- Sub-Divisional Officer of the area where the Candidate and/or her/his family normally resides

- Administrator/Secretary to Administrator/Development Officer (Lakshadweep Islands)

Certificate issued by any other official will NOT be accepted.

Person with Disability (PwD) Category

In order to avail application fee concession under the PwD category, the candidates should attach a recently obtained proper PwD certificate, which is required to be submitted to the admitting institution at the time of admission. The onus of verifying PwD certificate lies with the admitting institute. The GATE committee is not responsible for any incorrect declaration of the PwD status of candidates.

Authorities empowered to issue Dyslexic Certificate

A copy of the certificate of Dyslexic should be uploaded at the time of online registration to avail the services of scribe. Such dyslexic certificate will be obtained from any Dyslexia Association. Some of them are listed below:

1. Dyslexia Trust of Kolkatta, Divya Jalan, Aruna Bhaskar 3, Dover Park, Kolkata – 700019

2. Dyslexia Association Of Andhra Pradesh (DAAP), 3-4-494/1,1st Floor, Macherla Gastrology Hospital, Reddy College Road, Barkatpura, Hyderabad, Telangana, 500027

3. Madras Dyslexia Association, 94 Park View, 1st Floor, G.N. Chetty Road, T. Nagar, Chennai – 600017

4. Maharashtra Dyslexia Association, 003, Amit Park Bldg, L J Road, Deonar, Mumbai 400088

5. The Dyslexia Association of India, MZ-47, The Center Stage Mall, Plot No 01, Block L, Sector 18, Noida, 201303

Appendix D

CODE OF CONDUCT FOR GATE 2019 EXAMINATION

All the candidates appearing for GATE 2019 Examination must comply strictly with the following Rules and Regulations:

- Candidates appearing for GATE 2019 examination must carry Admit Card and original valid photo-identity proof inside the examination hall.

- Scribble pads will be provided to the candidates in the examination hall by the invigilators. The same should be used for all rough work. Candidates should write their name and registration number on the scribble pads. The scribble pads must be returned to the invigilators after the end of the examination.

- Carrying mobile phones (even in the switched-off mode), wristwatches and calculators inside the examination hall is strictly prohibited.

- Carrying of any other electronic devices that can be used for communication or for any other purpose, and printed or hand-written textual materials, inside the examination hall is strictly prohibited.

- All means of communication (verbal or otherwise) among the candidates inside the examination hall are strictly prohibited.

- Candidates should not tamper with the computer and the related hardware provided in the examination hall. Candidates found to have tampered with these willfully, will have their candidature cancelled summarily. In addition, appropriate legal action will be initiated against such candidates.

The GATE 2019 candidature of candidates found using unfair means and not in line with the code and ethics of the GATE examination may be cancelled. Their examination will not be evaluated, even if they may have been allowed to complete their examination. In addition, appropriate legal action may be initiated against all such candidates.