

GATE 2011

EXAMINATION SCHEDULE

Exam Type	Date	Time	Test Papers
ONLINE	January 30, 2011 (Sunday)	09.00 hrs - 12.00 hrs	GG and TF
		14.00 hrs - 17.00 hrs	AE and MN
OFFLINE	February 13, 2011 (Sunday)	09.00 hrs - 12.00 hrs	AR, BT, CE, CH, CS, ME, PH and PI
		14.00 hrs - 17.00 hrs	AG, CY, EC, EE, IN, MA, MT, XE and XL

OTHER IMPORTANT DATES

Commencement of sale of Information Brochure and Application Form/Online Application Form Registration	Tuesday	Sept. 21, 2010
Last date for issue of Information Brochure and Application Form		
at bank counters	Wednesday	Oct. 27, 2010
at GATE office counters	Friday	Oct. 29, 2010
Last date for		
ONLINE Application Form submission (website closure)	Wednesday	Oct. 27, 2010
Receipt of completed OFFLINE / ONLINE Application Forms at the respective zonal GATE Office	Tuesday	Nov. 02, 2010
Announcement of Results	Tuesday	Mar. 15, 2011

Websites of Zonal GATE Offices

IISc Bangalore	http://gate.iisc.ernet.in
IIT Bombay	http://www.iitb.ac.in/gate
IIT Delhi	http://www.iitd.ac.in/gate
IIT Guwahati	http://www.iitg.ernet.in/gate
IIT Kanpur	http://www.iitk.ac.in/gate
IIT Kharagpur	http://gate.iitkgp.ac.in
IIT Madras	http://gate.iitm.ac.in
IIT Roorkee	http://www.iitr.ac.in/gate

Information Brochure

GATE 2011

GRADUATE APTITUDE TEST IN ENGINEERING

- ❖ Please check that this brochure is received together with an Envelope containing Application Form
- ❖ The Application Number appearing on Application Form and Envelope should be IDENTICAL
- ❖ In case of discrepancy, contact the Zonal GATE Chairman



Organising Institute
Indian Institute of Technology Madras



Organising Institute
Indian Institute of Technology Madras

Zone	Examination cities for		Contact details
	ONLINE Exam	OFFLINE Exam	
Zone 1	Bangalore Hyderabad	Anantapur, Bagalkot, Bangalore, Belgaum, Davangere, Hassan, Hubli, Hyderabad, Kurnool, Mahabubnagar, Mysore, Secunderabad and Surathkal	Chairman, GATE Indian Institute of Science Bangalore 560 012 Phone: 080-2293 2392 Fax: 080-2360 1227 E-mail: gate@gate.iisc.ernet.in
Zone 2	Mumbai Pune	Ahmednagar, Akola, Amravati, Aurangabad, Goa, Gulbarga, Jalgaon, Jodhpur, Kolhapur, Latur, Loni, Mumbai, Nagpur, Nanded, Nashik, Navi Mumbai, Pandharpur, Pune, Rajkot, Sangli, Satara, Shegaon, Solapur, Surat, Thane, Vadodara and Wardha	Chairman, GATE IIT Bombay, Powai, Mumbai 400 076 Phone: 022-2576 7068 Fax: 022-2572 3706 E-mail: gateoffice@iitb.ac.in
Zone 3	Gurgaon New Delhi	Ahmedabad, Ajmer, Alwar, Bikaner, Dausa, Delhi Central, Delhi East, Delhi North, Delhi South, Delhi West, Faridabad, Gurgaon, Indore, Jaipur, Jammu, Mahesana, Sikar, Udaipur and Ujjain	Chairman, GATE IIT Delhi, Hauz Khas, New Delhi 110 016 Phone: 011-2659 1749 Fax: 011-2658 1579 E-mail: gate@admin.iitd.ernet.in
Zone 4	Guwahati Patna	Agartala, Asansol, Bhagalpur, Dhanbad, Durgapur, Gangtok, Guwahati, Imphal, Itanagar, Jorhat, Kalyani, Patna, Silchar, Siliguri and Tezpur	Chairman, GATE IIT Guwahati, Guwahati 781 039 Phone: 0361-258 2751 Fax: 0361-258 2755 E-mail: gate@iitg.ernet.in
Zone 5	Lucknow Kanpur	Agra, Aligarh, Allahabad, Bareilly, Bhopal, Gorakhpur, Jabalpur, Jhansi, Kanpur, Lucknow, Saugar (Sagar, MP), Sultanpur and Varanasi	Chairman, GATE IIT Kanpur, Kanpur 208 016 Phone: 0512-259 7412 Fax: 0512-259 0932 E-mail: gate@iitk.ac.in
Zone 6	Kolkata Visakhapatnam	Balasore, Berhampur (Orissa), Bhimavaram, Bhubaneswar, Bilaspur, Cuttack, Eluru, Jamshepur, Kakinada (AP), Kharagpur, Kolkata, Machilipatnam, Raipur, Rajahmundry, Ranchi, Rourkela, Sambalpur, Srikakulam, Tadepalligudem, Vijayawada and Visakhapatnam	Chairman, GATE IIT Kharagpur, Kharagpur 721 302 Phone: 03222-282091 Fax: 03222-278243 E-mail: gate@adm.iitkgp.ernet.in
Zone 7	Chennai Coimbatore	Bapatla, Chennai North, Chennai South, Chidambaram, Chittoor, Coimbatore, Dindigul, Ernakulam, Gudur, Guntur, Kadapa (Cuddapah), Kannur, Karimnagar, Khammam, Kollam, Kothagudem, Kottayam, Kozhikode, Madurai, Manchiryal, Nagercoil, Nalgonda, Nellore, Ongole, Palakkad, Puducherry (Pondicherry), Salem, Tenali, Thanjavur, Thiruvananthapuram, Thrissur, Tiruchirapalli, Tirunelveli, Tirupati and Warangal	Chairman, GATE IIT Madras, Chennai 600 036 Phone: 044-2257 8200 Fax: 044-2257 8204 E-mail: gate@iitm.ac.in
Zone 8	Chandigarh Roorkee	Amritsar, Bathinda, Bijnor, Chandigarh, Dehradun, Ghaziabad, Gwalior, Haldwani Hamirpur (HP), Haridwar, Hisar, Jalandhar Kota, Kurukshetra, Ludhiana, Mathura, Meerut, Muzaffarnagar, Noida, Patiala, Rohtak, Roorkee, Shimla and Yamunanagar	Chairman, GATE IIT Roorkee, Roorkee 247 667 Phone: 01332-284531 Fax: 01332-285707 E-mail: gate@iitr.ernet.in

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1. General Information

Graduate Aptitude Test in Engineering (GATE) is an all India examination administered and conducted jointly by the Indian Institute of Science and seven Indian Institutes of Technology on behalf of the National Coordination Board - GATE, Department of Higher Education, Ministry of Human Resource Development (MHRD), Government of India.

The GATE committee, which comprises of representatives from the administering institutes, is the sole authority for regulating the examination and declaring the results.

1.1. Zonal Administering Institutes

GATE is conducted through the constitution of eight zones. The zones and the corresponding administering institutes are:

- Zone 1 - Indian Institute of Science Bangalore
- Zone 2 - Indian Institute of Technology Bombay
- Zone 3 - Indian Institute of Technology Delhi
- Zone 4 - Indian Institute of Technology Guwahati
- Zone 5 - Indian Institute of Technology Kanpur
- Zone 6 - Indian Institute of Technology Kharagpur
- Zone 7 - Indian Institute of Technology Madras
- Zone 8 - Indian Institute of Technology Roorkee

The contact details of the zonal administering institutes are given in Table-1.

The overall coordination and responsibility of conducting GATE 2011 lies with **Indian Institute of Technology Madras**, designated as the **Organising Institute for GATE 2011**.

1.2. Eligibility for GATE

The following categories of candidates are eligible to appear for GATE:

- a) Bachelor's degree holders in Engineering/Technology/Architecture (4 years after 10+2) and those who are in the final or pre-final year of such programmes.
- b) Master's degree holders in any branch of Science/Mathematics/Statistics/Computer Applications or equivalent and those who are in the final or pre-final year of such programmes.
- c) Candidates in the second or higher year of the Four-year Integrated Master's degree programme (Post-B.Sc.) in Engineering/Technology or in the third or higher year of Five-year Integrated Master's degree programme and Dual Degree programme in Engineering/Technology.
- d) Candidates with qualifications obtained through examinations conducted by professional societies recognized by UPSC/AICTE (e.g. AMIE by IE(I), AMICE(I) by the Institute of Civil Engineers (India)-ICE(I)) as equivalent to B.E./B.Tech. Those who have completed section A or equivalent of such professional courses are also eligible.

1.3. GATE Qualification

Admission to postgraduate programmes with MHRD and some other Government scholarships/assistantships in engineering colleges/institutes is open to those who qualify in GATE examination. GATE qualified candidates with Bachelor's degree in Engineering/Technology/Architecture or Master's degree in any branch of Science/Mathematics/Statistics/Computer Applications are eligible for admission to Master's degree programmes in Engineering/Technology/Architecture as well as for Doctoral programmes in relevant branches of Science with MHRD or other Government scholarships/assistantships. To avail the scholarship, the candidate must secure admission to such a postgraduate programme, as per the prevailing procedure of the admitting institution. However, candidates with Master's degree in Engineering/Technology/Architecture may seek admission to relevant Doctoral programmes with scholarship/assistantship without appearing in the GATE examination.

GATE qualification is also a minimum requirement to apply for various fellowships awarded by many Government organizations.

Table-1: Examination cities and contact details of the zonal GATE offices

Zone	Examination cities for		Contact Details
	ONLINE Exam	OFFLINE Exam	
Zone 1	Bangalore Hyderabad	Anantapur, Bagalkot, Bangalore, Belgaum, Davangere, Hassan, Hubli, Hyderabad, Kurnool, Mahabubnagar, Mysore, Secunderabad and Surathkal	Chairman, GATE Indian Institute of Science Bangalore 560 012 Phone: 080-2293 2392 Fax: 080-2360 1227 E-mail: gate@gate.iisc.ernet.in
Zone 2	Mumbai Pune	Ahmednagar, Akola, Amravati, Aurangabad, Goa, Gulbarga, Jalgaon, Jodhpur, Kolhapur, Latur, Loni, Mumbai, Nagpur, Nanded, Nashik, Navi Mumbai, Pandharpur, Pune, Rajkot, Sangli, Satara, Shegaon, Solapur, Surat, Thane, Vadodara and Wardha	Chairman, GATE Indian Institute of Technology Bombay, Powai, Mumbai 400 076 Phone: 022-2576 7068 Fax: 022-2572 3706 E-mail: gateoffice@iitb.ac.in
Zone 3	Gurgaon New Delhi	Ahmedabad, Ajmer, Alwar, Bikaner, Dausa, Delhi Central, Delhi East, Delhi North, Delhi South, Delhi West, Faridabad, Gurgaon, Indore, Jaipur, Jammu, Mahesana, Sikar, Udaipur and Ujjain	Chairman, GATE Indian Institute of Technology Delhi, Hauz Khas, New Delhi 110 016 Phone: 011-2659 1749 Fax: 011-2658 1579 E-mail: gate@admin.iitd.ernet.in
Zone 4	Guwahati Patna	Agartala, Asansol, Bhagalpur, Dhanbad, Durgapur, Gangtok, Guwahati, Imphal, Itanagar, Jorhat, Kalyani, Patna, Silchar, Siliguri and Tezpur	Chairman, GATE Indian Institute of Technology Guwahati, Guwahati 781 039 Phone: 0361-258 2751 Fax: 0361-258 2755 E-mail: gate@iitg.ernet.in
Zone 5	Lucknow Kanpur	Agra, Aligarh, Allahabad, Bareilly, Bhopal, Gorakhpur, Jabalpur, Jhansi, Kanpur, Lucknow, Saugar (Sagar, MP), Sultanpur and Varanasi	Chairman, GATE Indian Institute of Technology Kanpur, Kanpur 208 016 Phone: 0512-259 7412 Fax: 0512-259 0932 E-mail: gate@iitk.ac.in
Zone 6	Kolkata Visakhapatnam	Balasore, Berhampur (Orissa), Bhimavaram, Bhubaneswar, Bilaspur, Cuttack, Eluru, Jamshedpur, Kakinada (AP), Kharagpur, Kolkata, Machilipatnam, Raipur, Rajahmundry, Ranchi, Rourkela, Sambalpur, Srikakulam, Tadepalligudem, Vijayawada and Visakhapatnam	Chairman, GATE Indian Institute of Technology Kharagpur, Kharagpur 721 302 Phone: 03222-282091 Fax: 03222-278243 E-mail: gate@adm.iitkgp.ernet.in
Zone 7	Chennai Coimbatore	Bapatla, Chennai North, Chennai South, Chidambaram, Chittoor, Coimbatore, Dindigul, Ernakulam, Gudur, Guntur, Kadapa (Cuddapah), Kannur, Karimnagar, Khammam, Kollam, Kothagudem, Kottayam, Kozhikode, Madurai, Manchiryal, Nagercoil, Nalgonda, Nellore, Ongole, Palakkad, Puducherry (Pondicherry), Salem, Tenali, Thanjavur, Thiruvananthapuram, Thrissur, Tiruchirapalli, Tirunelveli, Tirupati and Warangal	Chairman, GATE Indian Institute of Technology Madras, Chennai 600 036 Phone: 044-2257 8200 Fax: 044-2257 8204 E-mail: gate@iitm.ac.in
Zone 8	Chandigarh Roorkee	Amritsar, Bathinda, Bijnor, Chandigarh, Dehradun, Ghaziabad, Gwalior, Haldwani, Hamirpur (HP), Haridwar, Hisar, Jalandhar, Kota, Kurukshetra, Ludhiana, Mathura, Meerut, Muzaffarnagar, Noida, Patiala, Rohtak, Roorkee, Shimla and Yamunanagar	Chairman, GATE Indian Institute of Technology Roorkee, Roorkee 247 667 Phone : 01332-284531 Fax : 01332-285707 E-mail : gate@iitr.ernet.in

Note: GATE 2011 Committee may drop any place as examination city at its discretion

1.4. Postgraduate Admissions with MHRD Scholarship

As per the directives of the MHRD, the following procedure is to be adopted for admission to postgraduate programmes (Master and Doctoral) with MHRD scholarship/assistantship. The performance of the candidate in GATE will be considered for admission. If the candidate is to be selected through interview for postgraduate programmes, minimum 70% weightage is to be given to the performance in GATE. The remaining weightage (30% maximum) can be given to the candidate's academic record or performance in interview. Candidate opting for a general paper (XE or XL) may be further examined (by interview/written test) by the admitting institution. In such cases also the weightage for GATE performance should not be less than 70%. The admitting institution will prescribe minimum passing percentage of marks in the interview. Some colleges/institutes specify GATE qualification as the mandatory requirement even for admission without MHRD scholarship/assistantship.

Candidates are advised to seek details of admission procedures and availability of MHRD scholarship/assistantship from the concerned admitting institution. The criteria for postgraduate admission with scholarship/assistantship are different for different admitting institutions. GATE offices will not entertain any enquiry about admission and award of scholarship/assistantship.

It is the responsibility of the admitting institution to award the MHRD scholarship/assistantship to only those candidates who secured marks equal to or more than the "qualifying mark" in the concerned GATE paper and for the corresponding category of the candidate. The management of the postgraduate scholarship/assistantship is also the responsibility of the admitting institution. The GATE committee also has no role in the award or disbursement of scholarship/assistantship. Similarly, reservation of seats under different categories is as per the policies and norms prevailing at the admitting institution and Government of India rules.

A candidate declared "GATE qualified at the time of admission" is entitled for MHRD fellowship for 24 months unless he/she loses it due to poor performance in the registered programme.

The students of Integrated Master Degree and Dual Degree programmes in Engineering/Technology are eligible to appear in GATE 2011 in order to qualify for the postgraduate scholarships in their own institutions only. They are not eligible for admission to a fresh M.E./M.Tech. programme.

1.5. Application Submission Process

- a) There are two different ways by which a candidate can apply/register for GATE 2011, namely, '**Online**' and '**Offline**'. The preferred mode of application submission process is '**Online**'. Details for applying **Online** and **Offline** are available on the websites of zonal administering institutes given below. Details of the process for applying **Offline** are also given in Section 5 of this brochure.

<u>Zone</u>	<u>Website</u>
IISc Bangalore	gate.iisc.ernet.in
IIT Bombay	www.iitb.ac.in/gate
IIT Delhi	www.iitd.ac.in/gate
IIT Guwahati	www.iitg.ernet.in/gate
IIT Kanpur	www.iitk.ac.in/gate
IIT Kharagpur	gate.iitkgp.ac.in
IIT Madras	gate.iitm.ac.in
IIT Roorkee	www.iitr.ac.in/gate

- b) The **Online** application fee is Rs. 800 for General/OBC Category candidates and Rs. 400 for SC/ST/PD* Category candidates. The **Offline** application fee is Rs. 1000 for General/OBC Category candidates and Rs. 500 for SC/ST/PD* Category candidates. The application fee is non-refundable.

*Person with Disability

2. Structure of GATE 2011

2.1. Examination Papers

A candidate can apply for only ONE of the 21 papers listed in Table-2. The syllabi of all the papers are given in websites of GATE 2011.

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 paper according to his/her admission plan, keeping in mind the eligibility criteria of the institutions in which he/she wishes to seek admission.

Table-2: List of GATE papers and corresponding codes

PAPER	CODE	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	Physics	PH
Computer Science and Information Technology	CS	Production and Industrial Engineering	PI
Chemistry	CY	Textile Engineering and Fibre Science	TF
Electronics and Communication Engineering	EC	Engineering Sciences	XE*
Electrical Engineering	EE	Life Sciences	XL*
Geology and Geophysics	GG		

* XE (Engineering Sciences) and XL (Life Sciences) papers are of general nature and will comprise of the sections listed below. A candidate appearing in XE or XL paper will be required to answer three sections apart from the General Aptitude (GA) questions. Section A is compulsory in XE paper and Section H is compulsory in XL paper. The candidate can choose any two out of the remaining sections listed against the respective papers, at the time of examination.

XE Paper SECTIONS	CODE	XL Paper SECTIONS	CODE
Engineering Mathematics (Compulsory)	A	Chemistry (Compulsory)	H
Fluid Mechanics	B	Biochemistry	I
Materials Science	C	Botany	J
Solid Mechanics	D	Microbiology	K
Thermodynamics	E	Zoology	L
Polymer Science and Engineering	F	Food Technology	M
Food Technology	G		

2.2. Examination Schedule and Cities

GATE 2011 Examination will include both ONLINE and OFFLINE examinations as per the following schedule:

Examination Type	Examination Cities	Examination Date (Day)	Examination Time	GATE Paper Codes
ONLINE	Listed in Column 2 of Table-1	January 30, 2011 (Sunday)	09.00 hrs – 12.00 hrs	GG and TF
			14.00 hrs – 17.00 hrs	AE and MN
OFFLINE	Listed in Column 3 of Table-1	February 13, 2011 (Sunday)	09.00 hrs – 12.00 hrs	AR, BT, CE, CH, CS, ME, PH and PI
			14.00 hrs – 17.00 hrs	AG, CY, EC, EE, IN, MA, MT, XE and XL

ONLINE Examination: Examination using computers where the candidate will choose the correct answer out of four options or fill in the correct numerical answer using mouse/keyboard.

OFFLINE Examination: Examination where the candidate will mark the correct answer out of four options in an Optical Response Sheet (ORS) by darkening the appropriate bubble.

Other important dates related to the GATE 2011 examination are listed in Table-3 given below.

Table-3: Other important dates

Commencement of sale of Information Brochure and Application Form Commencement of Online Application Form submission	Tuesday	September 21, 2010
Last date for issue of Information Brochure and Application Form: a) At bank counters b) At zonal GATE office counters	Wednesday Friday	October 27, 2010 October 29, 2010
Last date for: a) Submission of Online Application Form (website closure) b) Receipt of completed Offline/Online Application Form at respective zonal GATE Office	Wednesday Tuesday	October 27, 2010 (18:00 hrs) November 02, 2010
Announcement of results	Tuesday	March 15, 2011

2.3. Examination Type

The GATE examination consists of a single paper of 3 hours duration which contains 65 questions carrying a maximum of 100 marks. The question paper will consist of only objective questions. In all papers other than AE and TF, all the questions are of multiple choice type. In AE and TF papers, the question paper will consist of 60 questions of multiple choice type and 5 questions of numerical answer type. For multiple choice type questions, each question will have four choices for the answer. For numerical answer type questions, each question will have a number as the answer. The pattern of question papers is given in Section 4. The examination for the papers with codes AE, GG, MN and TF will be carried out ONLINE using computers where the candidates will be required to enter the answer for each question using keyboard/mouse. For all other papers, the candidates will have to mark the correct choice on an Optical Response Sheet (ORS) by darkening the appropriate bubble against each question. There will be negative marking for each wrong answer, except for the numerical answer type questions, as explained in Section 4.

Each GATE paper shall have a General Aptitude (GA) component carrying 15 marks.

2.4. GATE Results and Scorecard

2.4.1. GATE Results

- a. GATE 2011 results will be announced at **10:00 hrs.** on **March 15, 2011**, at GATE offices of IISc and seven IITs. GATE 2011 results will also be available on the websites of GATE offices.
- b. GATE 2011 score is valid for TWO YEARS from the date of announcement of the GATE 2011 results.**
- c. GATE 2011 results may be made available on payment basis to interested organizations (educational institutions, R&D laboratories, industries, etc.) in India and abroad based on a Memorandum of Understanding between IIT Madras and the requesting organization. Details in this regard can be obtained from the Chairman, GATE, IIT Madras.
- d. The machine-gradable Optical Response Sheets (ORS) are graded and scrutinized with extreme care. There is no provision for regrading and retotalling. No photocopies of the ORS will be made available. No correspondence in this regard will be entertained.

2.4.2. GATE Scorecard

Details about the contents of GATE Scorecard will be made available in the GATE websites at an appropriate time.

There is no provision for issue of additional GATE scorecards.

The GATE 2011 Committee has the authority to decide the qualifying mark for each GATE paper. In case any claim or dispute arises in respect of GATE 2011, it is hereby made absolutely clear that the Courts and Tribunals in Chennai and Chennai alone shall have the exclusive jurisdiction to entertain and settle any such dispute or claim.

3. What is New in GATE 2011?

3.1. ONLINE Examination in Two Additional Papers

In GATE 2010, the papers with codes MN and TF had ONLINE examination. In GATE 2011, two additional papers AE and GG will also have ONLINE examination. The ONLINE examination will be conducted in two sessions on Sunday, January 30, 2011. The ONLINE examination in GG and TF will be held in the forenoon session from 09.00 hrs to 12.00 hrs. The ONLINE examination in AE and MN will be held in the afternoon session from 14.00 hrs to 17.00 hrs.

3.2. Numerical Answer Type Questions in AE and TF Papers

In AE and TF papers, the question paper will consist of 60 questions of multiple choice type and 5 questions of numerical answer type. For multiple choice type questions, each question will have four choices for the answer. For numerical answer type questions, each question will have a number as the answer and choices will not be given.

3.3. OFFLINE Examination in Two Sessions

In GATE 2011, the OFFLINE examination will be conducted in two sessions on Sunday, February 13, 2011. The OFFLINE examination in AR, BT, CE, CH, CS, ME, PH and PI papers will be held in the forenoon session from 09.00 hrs to 12.00 hrs. The OFFLINE examination in AG, CY, EC, EE, IN, MA, MT, XE and XL will be held in the afternoon session from 14.00 hrs to 17.00 hrs.

3.4. Food Technology Section in both XE and XL Papers

In GATE 2011, Food Technology will be introduced as an optional section in XL paper also. The structure for Food Technology section in XL paper will be the same as the structure of the other optional sections in XL paper. The structure for Food Technology section in XE paper will be the same as the structure of the other optional sections in XE paper. The syllabus for the Food Technology section in XE and XL papers is the same.

4. Pattern of Question Papers

The pattern of examination papers is described below. This is followed by a description of objective questions.

4.1. All Papers other than AE, TF, GG, XE and XL Papers

There will be a total of 65 questions carrying 100 marks. Q.1 to Q.25 (25 questions) carry one mark each (sub-total 25 marks). Q.26 to Q.55 (30 questions) carry two marks each (sub-total 60 marks). Questions Q.56 – Q.65 belong to General Aptitude (GA). Questions Q.56 – Q.60 (5 questions) carry 1 mark each (sub-total 5 marks) and questions Q.61 – Q.65 (5 questions) carry 2-marks each (sub-total 10 marks).

Questions Q.48 – Q.51 (2 pairs) are common data questions. Question pairs (Q.52, Q.53) and (Q.54, Q.55) are linked answer questions. The answer to the second question of the linked answer questions depends on the answer to the first question of the pair. If the first question in the linked pair is wrongly answered or is unattempted, then the answer to the second question in the pair will not be evaluated.

NEGATIVE MARKING: For Q.1 – Q.25 and Q.56 – Q.60, 1/3 mark will be deducted for each wrong answer. For Q.26 – Q.51 and Q.61 – Q.65, 2/3 mark will be deducted for each wrong answer. The question pairs (Q.52, Q.53), and (Q.54, Q.55) are questions with linked answers. There will be negative marks only for wrong answer to the first question of the linked answer question pair i.e. for Q.52 and Q.54, 2/3 mark will be deducted for each wrong answer. There is no negative marking for Q.53 and Q.55.

Questions on Engineering Mathematics will carry about 15% of the total marks (excluding General Aptitude section) in all the papers bearing the codes AG, BT, CE, CH, CS, EC, EE, IN, ME, MN, MT and PI.

4.2. AE and TF Papers

There will be a total of 65 questions carrying 100 marks. Q.1 to Q.25 (25 questions) carry one mark each (sub-total 25 marks). Q.26 to Q.55 (30 questions) carry two marks each (sub-total 60 marks). Questions Q.56 – Q.65 belong to General Aptitude (GA). Questions Q.56 – Q.60 (5 questions) carry 1 mark each (sub-total 5 marks) and questions Q.61 – Q.65 (5 questions) carry 2-marks each (sub-total 10 marks).

Questions Q.1-Q.25 and Q.31-Q.65 are of multiple choice type. Questions Q.26-Q.30 are of numerical answer type.

Questions Q.48 – Q.51 (2 pairs) are common data questions. Question pairs (Q.52, Q.53) and (Q.54, Q.55) are linked answer questions. The answer to the second question of the linked answer questions depends on the answer to the first question of the pair. If the first question in the linked pair is wrongly answered or is unattempted, then the answer to the second question in the pair will not be evaluated.

NEGATIVE MARKING: There is negative marking for multiple choice type questions. For Q.1 – Q.25 and Q.56 – Q.60, 1/3 mark will be deducted for each wrong answer. For Q.31 – Q.51 and Q.61 – Q.65, 2/3 mark will be deducted for each wrong answer. The question pairs (Q.52, Q.53), and (Q.54, Q.55) are questions with linked answers. There will be negative marks only for wrong answer to the first question of the linked answer question pair i.e. for Q.52 and Q.54, 2/3 mark will be deducted for each wrong answer. There is no negative marking for Q.53 and Q.55.

There is no negative marking for numerical answer type questions Q.26-Q.30.

Questions on Engineering Mathematics will carry about 15% of the total marks (excluding General Aptitude section) in the papers bearing the codes AE and TF

4.3. GG (Geology and Geophysics) Paper

There are a total of 65 questions carrying 100 marks. Apart from General Aptitude (GA), the question paper consists of two parts: Part A and Part B. Part A is common for all candidates. Part B contains two sections: Section 1 (Geology) and Section 2 (Geophysics). Candidates will have to attempt questions in Part A and either Section 1 or Section 2 in Part B.

Part A consists of 25 questions Q.1-Q.25 with each question carrying 1-mark (sub-total 25 marks). Each of the sections (Section 1 and Section 2) in Part B consists of 30 questions Q.26-Q.55 with each question carrying 2-marks (sub-total 60 marks). Questions Q.48 – Q.51 (2 pairs) are common data questions. Question pairs (Q.52, Q.53) and (Q.54, Q.55) are linked answer questions. The answer to the second question of the linked answer questions depends on the answer to the first question of the pair. If the first question in the pair is wrongly answered or is unattempted, then the answer to the second question in the pair will not be evaluated. Questions Q.56 – Q.65 belong to General Aptitude (GA). Questions Q.56 – Q.60 (5 questions) carry 1-mark each (sub-total 5 marks) and questions Q.61 – Q.65 (5 questions) carry 2-marks each (sub-total 10 marks).

NEGATIVE MARKING: For Q.1 – Q.25 and Q.56 – Q.60, 1/3 mark will be deducted for each wrong answer. For Q.26 – Q.51 and Q.61 – Q.65, 2/3 mark will be deducted for each wrong answer. The

question pairs (Q.52, Q.53), and (Q.54, Q.55) are questions with linked answers. There will be negative marks only for wrong answer to the first question of the linked answer question pair i.e. for Q.52 and Q.54, 2/3 mark will be deducted for each wrong answer. There is no negative marking for Q.53 and Q.55.

4.4. XE Paper (Engineering Sciences)

There are a total of 65 questions carrying 100 marks.

There are 11 questions carrying 15 marks in XE Engineering Mathematics section paper (Section A), which is compulsory. Questions Q.1 – Q.7 (7 questions) carry 1-mark each (sub-total 7 marks), and questions Q.8 – Q.11 (4 questions) carry 2-marks each (sub-total 8 marks).

Each of the other XE section papers (Sections B through G) contains 22 questions carrying 35 marks. Questions Q.1 – Q.9 (9 questions) carry 1-mark each (sub-total 9 marks). Questions Q.10 – Q.22 (13 questions) carry 2-marks each (sub-total 26 marks). Questions Q.17 – Q.20 (2 pairs) are common data questions with 2-marks each. Questions Q.21 and Q.22 (1 pair) are linked answer questions with 2-marks each. The answer to the second question of the pair of linked answer questions depends on the answer to the first question of the pair. If the first question in the pair is wrongly answered or is unattempted, then the answer to the second question in the pair will not be evaluated.

There are 10 questions carrying 15 marks in General Aptitude (GA), which is compulsory. Questions Q.1 – Q.5 (5 questions) carry 1-mark each (sub-total 5 marks), and questions Q.6 – Q.10 (5 questions) carry 2-marks each (sub-total 10 marks).

NEGATIVE MARKING: In XE Section A, for Q.1 – Q.7, 1/3 mark will be deducted for each wrong answer and for Q.8 – Q.11, 2/3 mark will be deducted for each wrong answer. In all other XE section papers (Sections B through G), for Q.1 – Q.9, 1/3 mark will be deducted for each wrong answer and for Q.10 – Q.20, 2/3 mark will be deducted for each wrong answer. The question pair (Q.21, Q.22) is a linked answer question. There will be negative marks only for wrong answer to the first question of the linked answer question pair. For Q.21, 2/3 mark will be deducted for wrong answer. There is no negative marking for Q.22. In GA section, for Q.1 – Q.5, 1/3 mark will be deducted for each wrong answer and for Q.6 – Q.10, 2/3 mark will be deducted for each wrong answer.

4.5. XL Paper (Life Sciences)

There are a total of 65 questions carrying 100 marks.

There are 15 questions carrying 25 marks in XL Chemistry section paper (Section H), which is compulsory. Questions Q.1 – Q.5 (5 questions) carry 1-mark each (sub-total 5 marks). Questions Q.6 – Q.15 (10 questions) carry 2-marks each (sub-total 20 marks). Questions Q.12 and Q.13 (1 pair) are common data questions with 2-marks each. Questions Q.14 and Q.15 (1 pair) are linked answer questions with 2-marks each. The answer to the second question of the pair of linked answer questions depends on the answer to the first question of the pair. If the first question in the pair is wrongly answered or is unattempted, then the answer to the second question in the pair will not be evaluated.

Each of the other XL section papers (Sections I through M) contains 20 questions carrying 30 marks. Questions Q.1 – Q.10 (10 questions) carry 1-mark each (sub-total 10 marks) and questions Q.11 – Q.20 (10 questions) carry 2-marks each (sub-total 20 marks).

There are 10 questions carrying 15 marks in General Aptitude (GA), which is compulsory. Questions Q.1 – Q.5 (5 questions) carry 1-mark each (sub-total 5 marks), and questions Q.6 – Q.10 (5 questions) carry 2-marks each (sub-total 10 marks).

NEGATIVE MARKING: In XL Section H, for Q.1 – Q.5, 1/3 mark will be deducted for each wrong answer and for Q.6 – Q.13, 2/3 mark will be deducted for each wrong answer. The question pair (Q.14, Q.15) is a linked answer question. There will be negative marks only for wrong answer to the first question of the linked answer question pair. For Q.14, 2/3 mark will be deducted for wrong answer. There is no negative marking for Q.15. In all other XL section papers (Sections I through M), for Q.1 – Q.10, 1/3 mark will be deducted for each wrong answer and for Q.11 – Q.20, 2/3 mark will be deducted for each wrong answer. In GA section, for Q.1 – Q.5, 1/3 mark will be deducted for each wrong answer and for Q.6 – Q.10, 2/3 mark will be deducted for each wrong answer.

4.6. Types of Multiple Choice Objective Questions

Each of the multiple choice objective questions in all papers and sections will contain four answers, of which the correct answer is to be marked. The types of questions in a paper may be based on the following logic:

(i) *Recall*: These are based on facts, principles, formulae or laws of 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

(iv) *Analysis and Synthesis*: These can be linked answer questions, where the answer to the first question of the pair is required in order to answer its successor. Or these can be common data questions, in which two questions share the same data but can be solved independently of each other.

Common data based questions: Two questions are linked to a common data problem, passage and the like. Each question is independent and its solution is obtainable from the above problem data or passage directly. (Answer of the previous question is not required to solve the next question). Each question under this group will carry two marks.

Example

Statement for Common Data Questions, for instance, for Questions 48 and 49 in Main Paper:

Let X and Y be jointly distributed random variables such that the conditional distribution of Y, given $X=x$, is uniform on the interval $(x-1, x+1)$. Suppose $E(X)=1$ and $\text{Var}(X)=5/3$.

First question using common data:

Q.48 The mean of the random variable Y is

- (A) 1/2 (B) 1 (C) 3/2 (D) 2

Second question using common data:

Q.49 The variance of the random variable Y is

- (A) 1/2 (B) 2/3 (C) 1 (D) 2

Linked answer questions: These questions are of problem solving type. A problem statement is followed by two questions based on the problem statement. The two questions are designed such that the solution to the second question depends upon the answer to the first one. In other words, the first answer is an intermediate step in working out the second answer. Each question in such 'linked answer questions' will carry two marks.

Example

Statement for Linked Answer Questions, for instance, for Questions 52 and 53 in Main Paper:

The open loop transfer function of a unity feedback control system is given by

$$G(s)H(s) = \frac{K}{s(s+1)(2s+1)(3s+1)}$$

First question of the pair:

Q.52 The value of K which will cause sustained oscillations in the closed loop system is

- (A) $\frac{60}{121}$ (B) $\frac{70}{121}$ (C) $\frac{80}{121}$ (D) $\frac{90}{121}$

Second question of the pair:

Q.53 The frequency of sustained oscillations is

- (A) $\frac{1}{12}$ rad/sec (B) $\frac{1}{11}$ rad/sec (C) $\frac{1}{\sqrt{12}}$ rad/sec (D) $\frac{1}{\sqrt{11}}$ rad/sec

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

5. Instructions for Filling and Submission of Application Form**5.1. Important Information**

- Before you start filling the Application Form, please check that the Application Number printed on (i) Application Form and (ii) Envelope are the same. Any discrepancy should be brought to the notice of the GATE Chairman of the zone from which the Application Form was purchased. The contact details of all the zonal GATE Chairmen are given in Table-1.
- It is essential to quote the Application Number in all future correspondence with the respective zonal GATE office. The candidates are advised to keep a copy of the filled Application Form.
- The Application Form must be folded only along the original fold line. Nothing should be stapled or pinned to it. The Barcode on the Application Form should not be tampered. The Application Form will be declared defective if these instructions are not followed.

Note: Incomplete or defective applications will be rejected outright.

5.2. Instructions for filling Application Form**5.2.1. General**

The instructions given below for filling the Application Form must be followed meticulously. Refer to the specimen Application Form at the end of this section.

For *Items 1, 2, 8, 14, 15, 16, 18 and 19*, the candidate must write the required information in ink with black ball point pen in the boxes provided and then darken the appropriate bubble(s), using dark HB pencil only. In case of any discrepancy in the marked bubble(s) and the corresponding boxes, the information provided through the bubble(s) will be taken as final. The text boxes are provided only for guidance.

For *Items 1 to 9 and Items 14 to 19*, the candidate must provide information by filling the appropriate bubble(s) using dark HB pencil only.

Darken the appropriate bubble by filling it completely. For correcting any entry, completely erase the previous mark using a *soft eraser* and remove all smudges before re-filling.

Only BLACK BALL POINT PEN must be used for filling *Items 10, 11, 13 and Items 20 to 22*.

5.2.2. Itemwise Instructions for filling Application Form**Item 1: Name of the Candidate as in 10th Class Certificate**

Fill in your name in CAPITAL LETTERS as recorded in the High School (Class 10th) certificate issued by your Board/Institute and darken the appropriate bubbles. Your name in the GATE scorecard will appear exactly as filled in the Application Form. *Any change in the name/surname at any stage has to be duly supported by a proof of publication of name change in official gazette or a proper affidavit in case of change of name on account of marriage.*

Note: In case, your name has more than 30 characters (including blanks), abbreviate it suitably to accommodate within the space provided. For example, the name RAMAKRISNA VELLURAO VENKATESH KUMAR AYYAR can be abbreviated as,

R	A	M	A	K	R	I	S	N	A		V		V	E	N	K	A	T	E	S	H		K		A	Y	Y	A	R
---	---	---	---	---	---	---	---	---	---	--	---	--	---	---	---	---	---	---	---	---	---	--	---	--	---	---	---	---	---

Item 2: Date of Birth

Fill in your date of birth as given in your High School (Class 10th) certificate in the space provided and darken the appropriate bubbles.

Example: If the date of birth is 16th September 1987, fill in as,

Date		Month		Year	
1	6	0	9	8	7

Item 3: Gender

Darken the appropriate bubble, MALE or FEMALE.

Item 4: Nationality

Darken the appropriate bubble, INDIAN or FOREIGNER

Item 5: Category

Darken the appropriate bubble:

SC : Scheduled Caste, ST: Scheduled Tribe, OBC: Other Backward Class (non-creamy layer), GN: All others

Note: Candidate claiming concession for buying Application Form under SC and ST categories must attach a duly attested copy of valid Category Certificate, issued by a competent authority (see section 5.3). If the Category Certificate is found improper, the application will be rejected.

Item 6: Person with Disability (PD)

Darken the appropriate bubble, YES or NO

Note: PD candidate claiming concession for buying Application Form must attach a duly attested copy of Disability Certificate issued by appropriate medical authority. Applications with improper Disability Certificate will be rejected.

If any PD candidate requires the services of a scribe, darken the bubble YES. Otherwise, darken the bubble NO. Requests for scribe received at a later date may **not** be considered. The role of the scribe will be to read the question paper for the candidate and darken the bubbles as per the instructions of the candidate.

Item 7: Qualifying Degree

Darken the bubble corresponding to appropriate Degree Code. The degree code corresponds to the qualifying degree of the programme which the candidate has either completed or is presently studying in its final or pre-final year. The Degree Codes are given below:

<u>Degree</u>	<u>Code</u>
B.E./B.Tech./ B.Sc. (Engg.)/B.Sc.(Tech.)/B.Arch.	E
Integrated M.E./M.Tech./Dual Degree	M
M.Sc./M.C.A./M.A.	S
Professional (AMIE by IE(I) , AMICE(I) by ICE(I) etc.)	P

Item 8: Choice of Examination Cities

Fill in your choice of two Examination Cities in order of preference as 1st choice and 2nd choice, and darken the appropriate bubbles.

Candidates whose choice of the GATE paper is one of the OFFLINE examination papers (AG, AR, BT, CE, CH, CS, CY, EC, EE, IN, MA, ME, MT, PH, PI, XE and XL): Refer to Annexure I-A or I-B, which lists the cities where GATE 2011 OFFLINE examination will be conducted and the corresponding three digit CODES.

Candidates whose choice of the GATE paper is one of the ONLINE examination papers (AE, GG, MN and TF): Refer to Annexure I-C, which lists the cities where GATE 2011 ONLINE examination will be conducted and the corresponding three digit CODES.

Normally, a candidate is allotted the centre of examination according to his/her choices of examination city. However, in special circumstances, the zonal GATE Chairman may allot a centre in some other examination city.

The choices of examination city of each candidate as per GATE records will be made available on the websites of GATE 2011 by December 10, 2010. The candidate should verify the same and if there is any discrepancy he/she should inform the corresponding zonal GATE Chairman by sending a signed letter or FAX so as to reach the zonal GATE office on or before December 31, 2010 so that it may be corrected. There is no need to pay any additional fee for correction of discrepancy.

Requests for change of examination city will be accepted till December 31, 2010 with a fee of Rs.400/- to be paid in the form of demand draft to the corresponding zonal GATE Chairman (Details are available on the website).

Item 9: Choice of GATE Paper

Darken the appropriate bubble to indicate the correct choice of GATE Paper. **Requests for change of paper after submission of Application Form will not be considered.**

The choice of paper of each candidate as per GATE records will be made available on the website by December 10, 2010. The candidate should verify the same and if there is any discrepancy he/she should inform the corresponding zonal GATE Chairman by sending a signed letter or FAX so as to reach the zonal GATE office on or before December 31, 2010 so that it may be corrected. There is no need to pay any additional fee for this purpose.

Item 10: E-mail Address

Write your E-mail address using only black ball point pen. The E-mail address should be legible. This address will be used for all E-mail correspondences.

Item 11: Address for Correspondence

Write your postal address in CAPITAL LETTERS within the box using only black ball point pen. The address should be legible and should include the NAME of the candidate, and PINCODE.

Note: Scanned copy of this address will be used directly in all correspondence including mailing of ADMIT CARD and SCORECARD.

Item 12: Photograph

Paste your *recent* passport size clear front facial high contrast colour photograph (Size: 3 cm width x 4 cm height) in the box provided. Ensure that the application number is written at the back side of the photograph before it is pasted within the box. Please use good quality adhesive/glue, so that it does not get detached from the Application Form. *The photograph should not be stapled.* The photograph will be scanned and the scanned image will appear on the admit card as well as the scorecard. *The photograph should NOT be attested or signed by anyone.*

Item 13: Full Signature of the Candidate

Sign in full within the box provided, using only black ball point pen. The form must be signed only by the candidate and not by any other person. Signature in the form of initials is not permitted. This signature will be scanned and put on the admit card as well as the scorecard.

Note: If the candidate's signature on the attendance sheet, taken at the time of the examination, does not match with the signature on the admit card, the candidate will be disqualified.

Item 14: Year of Degree

Fill in the year of passing/appearing in the qualifying degree examination and darken the appropriate bubbles.

Item 15: Discipline Code

Fill in the Discipline Code and darken the appropriate bubbles.

Refer to Annexure I-D, which lists the two digit CODES corresponding to various disciplines of the qualifying degree/programme.

Item 16: Name of Parent

Fill in the name of your mother or father in CAPITAL LETTERS in the space provided and darken the appropriate bubbles.

Item 17: State/Union Territory of Permanent Residence

Darken the appropriate bubbles corresponding to the Indian State/Union Territory of your permanent residence. Refer to Annexure I-E, which gives the CODES for all Indian States and Union Territories.

Item 18: Mobile/Landline Phone with STD Code

Fill in mobile phone number/landline number with the STD code including the leading 0, at which you can be contacted. Darken the appropriate bubbles.

Item 19: PINCODE of Address for Correspondence

Write the PINCODE of your address of correspondence and darken the appropriate bubbles.

Item 20: Declaration by the Candidate

Read and sign the declaration using only black ball point pen, and write the Place and Date. *The signature must be identical to that in Item 13.*

Item 21: Check List

Fill up items in the Check List by ticking ✓ in the appropriate boxes.

Item 22: List of Attachments

Tick YES for the attachments enclosed with the Application Form, otherwise, tick NO or N/A.

5.3. Authorities Empowered to Issue SC/ST Category Certificates

- a) 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
- b) Chief Presidency Magistrate/ Additional Chief Presidency Magistrate/ Presidency Magistrate
- c) Revenue Officer not below the rank of Tashildar
- d) Sub-Divisional Officer of the area where the Candidate and/or her/his family normally resides
- e) Administrator/ Secretary to Administrator/ Development Officer (Lakshadweep Islands)

Certificate issued by any other official will not be accepted.

5.4. Filling and Submission of Application Envelope

On the application envelope, fill in the CODE of the examination city corresponding to your first choice (Item No. 8 of Application Form) and your chosen GATE Paper Code (Item No. 9 of Application Form).

Write your postal address in the designated space. The envelope should be addressed to the Chairman, GATE, of the Zone corresponding to the 1st Choice of Examination City of the candidate. See Table-1 for addresses of zonal GATE offices.

Completed Application Form must reach the Chairman, GATE of the Zone, where the candidate prefers (corresponding to the 1st Choice of Examination City) to appear for the examination, on or before Tuesday, November 02, 2010, by Registered/Speed Post only. It may also be submitted in person at the GATE office counter of the concerned Zone.

6. Other Information

Candidates can appear in the GATE examination only against valid admit cards. Candidates should contact the GATE Chairman of the zone concerned if they do not receive the admit card by **January 20, 2011** for ONLINE examination papers (AE, GG, MN and TF), and by **January 31, 2011** for OFFLINE examination papers (All papers other than AE, GG, MN and TF).

For additional information, announcements and results, visit any one of websites of zonal GATE offices.

APPLICATION FORM - GATE 2011

(SIDE-1)

Before filling up this form, read instructions in the Information Brochure

• USE HB PENCIL ONLY TO DARKEN THE BUBBLES
• DO NOT MAKE ANY STRAY MARKS ON THIS SHEET
• DARKEN THE BUBBLES FULLY
• ERASE COMPLETELY BEFORE MAKING CORRECTIONS
APPLICATION FORM INCOMPLETE IN ANY RESPECT WILL BE REJECTED.

1. Name of the Candidate as in 10th Class Certificate (in capital letters)

K TAMIL SELVAN

2. Date of Birth

Date: 03 / 04 / 88

3. Gender

MALE FEMALE

4. Nationality

INDIAN FOREIGNER

5. Category

SC ST OBC (not creamy layer) GN

6. Person with Disability

YES NO

8. Choice of Examination Cities

1st Choice: 7 2 4
2nd Choice: 7 3 4

7. Qualifying Degree

E M S P

9. Choice of GATE Paper (Select only one)

AE <input type="radio"/> Aerospace Engineering	CY <input type="radio"/> Chemistry	MN <input type="radio"/> Mining Engineering
AG <input type="radio"/> Agricultural Engineering	EC <input type="radio"/> Electronics & Communication Engg	MT <input type="radio"/> Metallurgical Engg
AR <input type="radio"/> Architecture & Planning	EE <input checked="" type="radio"/> Electrical Engineering	PH <input type="radio"/> Physics
BT <input type="radio"/> Biotechnology	GG <input type="radio"/> Geology & Geophysics	PI <input type="radio"/> Production & Ind. Engg.
CE <input type="radio"/> Civil Engineering	IN <input type="radio"/> Instrumentation Engineering	TF <input type="radio"/> Textile Engg. & Fibre Sc.
CH <input type="radio"/> Chemical Engineering	MA <input type="radio"/> Mathematics	XE <input type="radio"/> Engineering Sciences
CS <input type="radio"/> Computer Science & IT	ME <input type="radio"/> Mechanical Engineering	XL <input type="radio"/> Life Sciences

10. E-mail Address: tamil_selvan03@yahoo.com

11. Address for Correspondence (Write with BLACK BALL POINT PEN in Capital Letters)

NAME: K. TAMIL SELVAN
 ADDRESS: NO. E1/2/4, 11TH CROSS,
 GANDHI NAGAR,
 AVADI,
 CHENNAI PIN CODE: 600054

12. Photograph



13. Signature of the Candidate (WITH BLACK BALL POINT PEN ONLY)

K. Tamil Selvan

PLEASE TURN OVER

ANNEXURE – I: Codes for filling GATE Application Form**A. Zone-wise List of OFFLINE Examination Cities and Corresponding Codes (For candidates whose choice of GATE paper is one of the following: AG, AR, BT, CE, CH, CS, CY, EC, EE, IN, MA, ME, MT, PH, PI, XE and XL)**

Zone 1: IISc Bangalore	
Anantapur	101
Bagalkot	102
Bangalore	103
Belgaum	104
Davangere	105
Hassan	106
Hubli	107
Hyderabad	108
Kurnool	109
Mahabubnagar	110
Mysore	111
Secunderabad	112
Surathkal	113

Zone 2: IIT Bombay	
Ahmednagar	201
Akola	202
Amravati	203
Aurangabad	204
Goa	205
Gulbarga	206
Jalgaon	207
Jodhpur	208
Kolhapur	209
Latur	210
Loni	211
Mumbai	212
Nagpur	213
Nanded	214
Nashik	215
Navi Mumbai	216
Pandharpur	217
Pune	218
Rajkot	219
Sangli	220
Satara	221
Shegaon	222
Solapur	223
Surat	224
Thane	225
Vadodara	226
Wardha	227

Zone 3: IIT Delhi	
Ahmedabad	301
Ajmer	302
Alwar	303
Bikaner	304
Dausa	305
Delhi Central	306
Delhi East	307
Delhi North	308
Delhi South	309
Delhi West	310
Faridabad	311
Gurgaon	312
Indore	313
Jaipur	314
Jammu	315
Mahesana	316
Sikar	317
Udaipur	318
Ujjain	319

Zone 4: IIT Guwahati	
Agartala	401
Asansol	402
Bhagalpur	403
Dhanbad	404
Durgapur	405
Gangtok	406
Guwahati	407
Imphal	408
Itanagar	409
Jorhat	410
Kalyani	411
Patna	412
Silchar	413
Siliguri	414
Tezpur	415

Zone 5: IIT Kanpur	
Agra	501
Aligarh	502
Allahabad	503
Bareilly	504
Bhopal	505
Gorakhpur	506
Jabalpur	507
Jhansi	508
Kanpur	509
Lucknow	510
Saugar (Sagar, MP)	511
Sultanpur	512
Varanasi	513

Zone 6: IIT Kharagpur	
Balasore	601
Berhampur (Orissa)	602
Bhimavaram	603
Bhubaneswar	604
Bilaspur	605
Cuttack	606
Eluru	607
Jamshedpur	608
Kakinada (AP)	609
Kharagpur	610
Kolkata	611
Machilipatnam	612
Raipur	613
Rajahmundry	614
Ranchi	615
Rourkela	616
Sambalpur	617
Srikakulam	618
Tadepalligudem	619
Vijayawada	620
Visakhapatnam	621

Zone 7: IIT Madras	
Bapatla	701
Chennai North	702
Chennai South	703
Chidambaram	704
Chittoor	705
Coimbatore	706
Dindigul	707
Ernakulam	708
Gudur	709
Guntur	710
Kadapa (Cuddapah)	711
Kannur	712
Karimnagar	713
Khammam	714
Kollam	715
Kothagudem	716
Kottayam	717
Kozhikode	718
Madurai	719
Manchiryal	720
Nagercoil	721
Nalgonda	722
Nellore	723
Ongole	724
Palakkad	725
Puducherry(Pondicherry)	726
Salem	727
Tenali	728
Thanjavur	729
Thiruvananthapuram	730
Thrissur	731
Tiruchirapalli	732
Tirunelveli	733
Tirupati	734
Warangal	735

Zone 8: IIT Roorkee	
Amritsar	801
Bathinda	802
Bijnor	803
Chandigarh	804
Dehradun	805
Ghaziabad	806
Gwalior	807
Haldwani	808
Hamirpur (HP)	809
Haridwar	810
Hisar	811
Jalandhar	812
Kota	813
Kurukshetra	814
Ludhiana	815
Mathura	816
Meerut	817
Muzaffarnagar	818
Noida	819
Patiala	820
Rohtak	821
Roorkee	822
Shimla	823
Yamunanagar	824

B. Alphabetical Order of OFFLINE Examination Cities and Corresponding Codes (For candidates whose choice of GATE paper is one of the following: AG, AR, BT, CE, CH, CS, CY, EC, EE, IN, MA, ME, MT, PH, PI, XE and XL)

Agartala	401	Guwahati	407	Nellore	723
Agra	501	Gwalior	807	Noida	819
Ahmedabad	301	Haldwani	808	Ongole	724
Ahmednagar	201	Hamirpur (HP)	809	Palakkad	725
Ajmer	302	Haridwar	810	Pandharpur	217
Akola	202	Hassan	106	Patiala	820
Aligarh	502	Hisar	811	Patna	412
Allahabad	503	Hubli	107	Puducherry(Pondicherry)	726
Alwar	303	Hyderabad	108	Pune	218
Amravati	203	Imphal	408	Raipur	613
Amritsar	801	Indore	313	Rajahmundry	614
Anantapur	101	Itanagar	409	Rajkot	219
Asansol	402	Jabalpur	507	Ranchi	615
Aurangabad	204	Jaipur	314	Rohtak	821
Bagalkot	102	Jalandhar	812	Roorkee	822
Balasore	601	Jalgaon	207	Rourkela	616
Bangalore	103	Jammu	315	Salem	727
Bapatla	701	Jamshedpur	608	Sambalpur	617
Bareilly	504	Jhansi	508	Sangli	220
Bathinda	802	Jodhpur	208	Satara	221
Belgaum	104	Jorhat	410	Saugar (Sagar, MP)	511
Berhampur (Orissa)	602	Kadapa (Cuddapah)	711	Secunderabad	112
Bhagalpur	403	Kakinada (AP)	609	Shegaon	222
Bhimavaram	603	Kalyani	411	Shimla	823
Bhopal	505	Kannur	712	Sikar	317
Bhubaneswar	604	Kanpur	509	Silchar	413
Bijnor	803	Karimnagar	713	Siliguri	414
Bikaner	304	Khammam	714	Solapur	223
Bilaspur	605	Kharagpur	610	Srikakulam	618
Chandigarh	804	Kolhapur	209	Sultanpur	512
Chennai North	702	Kolkata	611	Surat	224
Chennai South	703	Kollam	715	Surathkal	113
Chidambaram	704	Kota	813	Tadepalligudem	619
Chittoor	705	Kothagudem	716	Tenali	728
Coimbatore	706	Kottayam	717	Tezpur	415
Cuttack	606	Kozhikode	718	Thane	225
Dausa	305	Kurnool	109	Thanjavur	729
Davangere	105	Kurukshetra	814	Thiruvananthapuram	730
Dehradun	805	Latur	210	Thrissur	731
Delhi Central	306	Loni	211	Tiruchirapalli	732
Delhi East	307	Lucknow	510	Tirunelveli	733
Delhi North	308	Ludhiana	815	Tirupati	734
Delhi South	309	Machilipatnam	612	Udaipur	318
Delhi West	310	Madurai	719	Ujjain	319
Dhanbad	404	Mahabubnagar	110	Vadodara	226
Dindigul	707	Mahesana	316	Varanasi	513
Durgapur	405	Manchiryal	720	Vijayawada	620
Eluru	607	Mathura	816	Visakhapatnam	621
Ernakulam	708	Meerut	817	Warangal	735
Faridabad	311	Mumbai	212	Wardha	227
Gangtok	406	Muzaffarnagar	818	Yamunanagar	824
Ghaziabad	806	Mysore	111		
Goa	205	Nagercoil	721		
Gorakhpur	506	Nagpur	213		
Gudur	709	Nalgonda	722		
Gulbarga	206	Nanded	214		
Guntur	710	Nashik	215		
Gurgaon	312	Navi Mumbai	216		

Note: The first digit of the number code of an examination city indicates the corresponding zone. For example, the number code for Agartala is 401. The zone for Agartala is Zone 4. Refer to Table-1 for contact details of zonal GATE offices.

C. Codes for ONLINE Examination Cities

(For candidates whose choice of GATE paper is one of the following: AE, GG, MN and TF)

Zone	Examination city	Code
IISc Bangalore	Bangalore	114
	Hyderabad	115
IIT Bombay	Mumbai	228
	Pune	229
IIT Delhi	Gurgaon	320
	New Delhi	321
IIT Guwahati	Guwahati	416
	Patna	417
IIT Kanpur	Lucknow	514
	Kanpur	515
IIT Kharagpur	Kolkata	622
	Visakhapatnam	623
IIT Madras	Chennai	736
	Coimbatore	737
IIT Roorkee	Chandigarh	825
	Roorkee	826

D. Codes for Qualifying Disciplines

Discipline	Code
Engineering/Technology:	
Aerospace Engg.	01
Aeronautical Engg.	02
Agricultural Engg.	03
Applied Mechanics	04
Architecture	05
Automobile Engg.	06
Biochemical Engg.	07
Biomedical Engg.	08
Biotechnology	09
Ceramic & Glass Technology	10
Chemical Engg.	11
Chemical Technology	12
Civil/Civil & Environmental/Structural Engg./ Consturction Engg.	13
Computer Science & Engg./Technology	14
Control and Instrumentation	15
Electrical Engg.	16
Electro-Chemical Engg.	17
Electronics & Comm./Electronics Engg./ Comm. Engg./Telecommunication Engg.	18
Energy Engg.	19
Environmental Engg.	20
Food Technology/Food Processing Engg.	21
Industrial Engg.	22
Industrial Management	23
Information Technology	24
Instrumentation/ Electronics/Control	25
Instrumentation & Process Control	26
Manufacturing Engg.	27
Material Scinece and Engineering	28
Mechanical Engg.	29
Mechatronics	30
Medical Instrumentation	31
Metallurgical Engg./ Industrial Metallurgy	32
Mineral Engg./Mineral Dressing	33
Mining Engg./Technology, Mining & Machinery	34
Naval Architecture/Marine Engg.	35
Oil Technology	36
Paint Technology	37
Petro-Chemical Engg.	38
Petroleum Engg./Technology	39

Discipline	Code
Engineering/Technology:	
Planning	40
Plastic Technology	41
Polymer Technology/Science	42
Production Engg./Production & Management	43
Production & Industrial Engg.	44
Rubber Technology	45
Renewable Energy	46
Textile Engineering & Fibre Science	47
All other disciplines in Engg./Technology	48

Discipline	Code
Sciences:	
Applied Electronics	61
Applied Physics	62
Agricultural Science	63
Biochemistry	64
Bio-Sciences	65
Computer Applications	66
Chemistry	67
Industrial Chemistry	68
Electronics	69
Engineering Physics	70
Earth Sciences	71
Geology/ Geophysics	72
Life Sciences	73
Life Science/Veterinary/Animal Science	74
Life Sciences (Botany)	75
Life Sciences (Zoology)	76
Materials Science	77
Mathematics/Applied Mathematics	78
Microbiology	79
Nano Science & Technology	80
Nuclear Physics	81
Operations Research	82
Physics	83
Pharmaceutical Sciences/Pharmacy	84
Radio Physics	85
Radio Physics & Electronics	86
Statistics	87
Textile Chemistry	88
All other disciplines in Sciences	89

E. Codes for States/Union Territories of Permanent Residence

State/Union Territory	Code	State/Union Territory	Code	State/Union Territory	Code	State/Union Territory	Code
Andaman & Nicobar	AN	Dadra and Nagar Haveli	DH	Karnataka	KA	Punjab	PB
Andhra Pradesh	AP	Delhi	DL	Kerala	KL	Puducherry (Pondicherry)	PY
Arunachal Pradesh	AR	Goa	GA	Lakshadweep	LD	Rajasthan	RJ
Assam	AS	Gujarat	GJ	Meghalaya	MA	Sikkim	SM
Bihar	BR	Himachal Pradesh	HP	Maharashtra	MH	Tripura	TA
Chattisgarh	CG	Haryana	HR	Manipur	MN	Tamil Nadu	TN
Chandigarh	CH	Jharkhand	JD	Madhya Pradesh	MP	Uttarakhand	UK
Daman & Diu	DD	Jammu & Kashmir	JK	Mizoram	MZ	Uttar Pradesh	UP
				Nagaland	NL	West Bengal	WB
				Orissa	OR	Others	OT