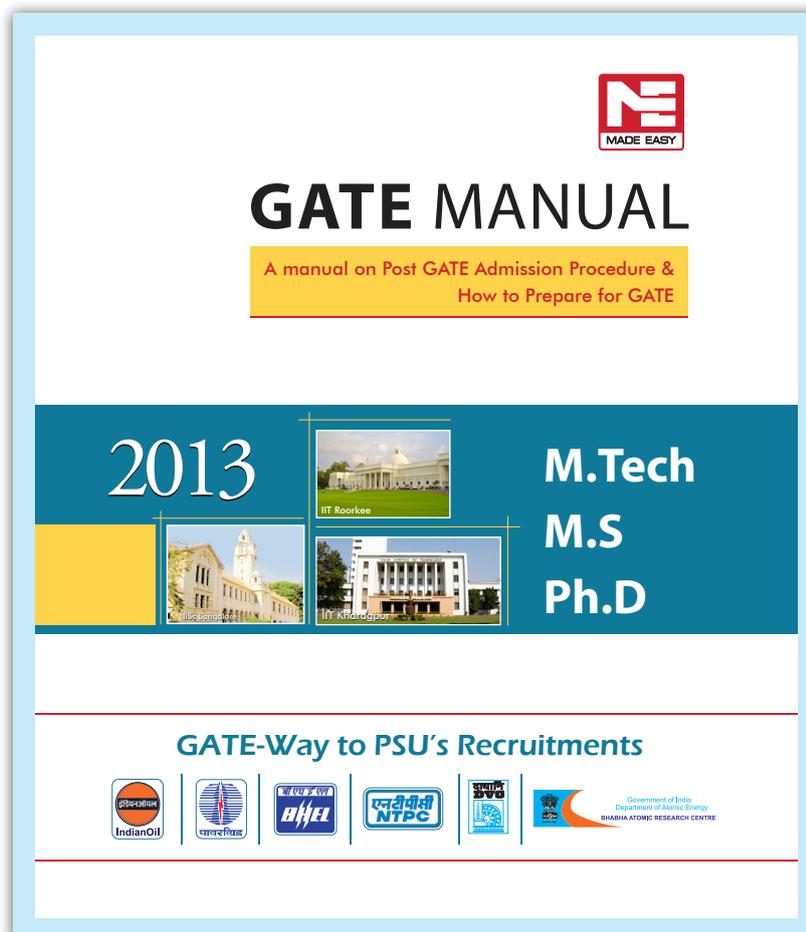




Presents

A Manual on Post GATE Admissions



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GATE MANUAL

A manual on Post GATE Admission Procedure &
How to Prepare for GATE

- ✓ Career Prospects after GATE
- ✓ Post GATE Admission Procedure
- ✓ Previous Cut-offs of M.Tech Admissions
- ✓ College Categories for M.Tech
 - ✓ Gateway to PSUs
- ✓ How to Prepare for GATE?



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ACKNOWLEDGEMENT

What after B.Tech ?

It is the most common question in the mind of all engineering students and the most common answer is GATE, but how to prepare for GATE & what will be benefits after GATE are not very well known to the students, because of lack of information. In my opinion this manual will provide necessary and useful information for all engineering graduates who are preparing for GATE & PSUs. It provides syllabus, reference books, subjectwise cutoff marks, strategy to prepare for GATE & how to score good rank in GATE. This manual will provide all the support in above mentioned areas to plan your future through GATE.

What after GATE ?

After the declaration of the GATE result, the real challenge begins to choose good college and good specialization which can provide good growth in career and good job opportunities in industries. The information given in this manual are to the point and very close to actual data, which are obtained through RTI and other reliable sources.

In my opinion this manual will prove to be an important tool for admission procedure in M.Tech and other courses. It will also help in opting good subject specialization and choosing good college.

This manual also provides essential and sufficient information about selection procedure of PSUs which are recruiting through GATE exam.

At the end, I would say that this manual will be definitely useful for engineering graduates to plan their career.

B.Singh (Ex. IES)

(CMD - MADE EASY Group)

4

Subject Specialization Priority Order

The subject specializations / Disciplines are categorized by experts based on several factors like future scope of the subjects, market trends, technology enhancement, job prospects, career growth etc.

4.1 Electronics & Telecommunication Engineering

1.	VLSI Design Tool Technology
2.	Integrated Electronics & Circuits
3.	Micro Electronics
4.	Microwave Engineering
5.	Communication Systems
6.	Telecommunication Technology & Management
7.	Nanotechnology
8.	Optoelectronics & Optical Communication
9.	Computer Technology
10.	Digital Signal Processing
11.	Control & Automation

4.2 Electrical Engineering

1.	VLSI Design*
2.	Integrated Electronics & Circuits*
3.	Power Electronics
4.	Machines & Drives
5.	Power Systems
6.	Telecommunication Technology & Management (Core branch of EC)
7.	Control & Automation
8.	Digital Signal Processing
9.	Instrumentation Technology
10.	Communication Engineering*
11.	Computer Technology
	Note: * means core branches of EC

4.3 Mechanical Engineering

1.	Design of Mechanical Equipment or Machine Design
2.	Thermal Engineering
3.	Manufacturing Science & Engineering
4.	Production Engineering
5.	Industrial Engineering
6.	Material Science & Management

4.4 Civil Engineering

1.	Structural Engineering
2.	Geotechnical Engineering
3.	Construction Planning & Management
4.	Transportation Engineering
5.	Environmental Engineering
6.	Earthquake Engineering
7.	Water Resource Engineering
8.	Rock Engineering & Underground Structure

4.5 Computer Science / Information Technology

Priority	Specialization
1	Computer Science & Engineering
2	VLSI Design*
3	Integrated Electronics & Circuits*
4	Computer Architecture
5	Operating System
6	Computer Security & Algorithm
7	Information System
8	Network & Mobile Communication
9	Software Technology
10	Information Technology
11	Computer Applications

Inter Disciplinary Courses : Aerospace, Computer Technology, Communication System, Machines & Drives, Energy & Environmental management, Energy Studies



5

College Categorisation for Post Graduate Courses

The most reputed colleges of the country can be categorized based on factors like placement prospects (quality & remuneration), infrastructure, departments availability, college profile, industry linkages, international accreditation and affiliation, contribution in research work, papers published, alumni network, number of Ph.Ds in faculty strength, faculty profile, projects undertaken, students to faculty ratio, quality of students and several other influencing factors.

Students should observe that these are mere recommendation by giving due consideration to above mentioned points. Students are advised not to blindly follow the order but should also keep in account their area of interest, inclination and proficiency while applying to the various courses in different colleges. Students should also look for placement prospects, future career avenues, academic value addition along with his interest. For eg. Industrial Engineering (IE) and Industrial Management (IM) in NITIE is an excellent course from point of view of industrial management.

So students are advised to a bit of research before opting for a particular college/course.

5.1 : Category 'A' Colleges

1.	IISC Bangalore
2.	IIT Mumbai
3.	IIT Delhi
4.	IIT Kanpur
5.	IIT Kharagpur
6.	IIT Chennai
7.	IIT Roorkee
8.	NITIE Mumbai* (For ME & PI, NITIE Mumbai may be preferred over other IITs also).

IISc: Indian Institute of Science - Bangalore

This institute offers following programmes (i) Research Programme [Ph.D / M.Sc (Engg)] (ii) Course Programme [ME /M.Tech /M.Des / M.Mgt] (iii) Integrated Ph.D Programme and (iv) External Registration Programme (Ph D only) .The Institute admits about 350 students every year for its various programmes.

Eligibility

The minimum requirement is degree with second class and valid GATE score for General and OBC candidates. Pass class with valid GATE score for SC/ST candidates.

Master of Technology (M.Tech)			
Department	Specialization	Streams Eligible	Admission Procedure
Electronics & Communication Engineering	Electronics system Engineering	BE / B.Tech/M.Sc or equivalent degree in Electronics related streams.	GATE score. Aptitude Test Interview
Computer Science	Computational Science	BE / B.Tech or equivalent degree in any discipline or MCA	
Civil Engineering	Climate Science	BE / B.Tech or equivalent degree in any discipline (with a GATE Paper in AE, CE, CH, EC, EE, ME, XE)	
	Transportation and Infrastructure Engineering	BE / B.Tech or equivalent degree or M.Sc or equivalent degree with a background in Physics, Mathematics, Statistics, Geology	
Instrumentation	Instrumentation	BE / B.Tech or equivalent degree in Instrumentation / Instrumentation & Control Engg. / Electronics & Instrumentation/ Electronics. or M.Sc or equivalent degree with specialization in Instrumentation/ Electronics	GATE score only

Note : The admission to all the programme given below are only on the basis of GATE score cards only

Master of Engineering (ME)

Departments	Specializations	Streams Eligible
Aerospace	Aerospace Engineering	BE / B.Tech in Aeronautical, Mechanical, Civil, Chemical, Electrical , Electronics or Comm.
Chemical	Chemical Engineering	BE / B.Tech or equivalent degree in Chemical Engineering .
Civil	Structural Engineering Geotechnical Engineering Water Resources & Environmental	BE / B.Tech or equivalent degree in Civil .
Mechanical	Mechanical Engineering	BE/ B.Tech or equivalent degree in Mechanical
Materials	Materials Engineering	BE / B.Tech or equivalent degree in Metallurgy, Mechanical Engineering, Chemical Engineering, Ceramic Engineering/Technology, Materials Engg .
Computer Science	Computer Science & Automation	BE / B.Tech or equivalent degree in Computer Science / Information Technology, Information Science
Electrical	Electrical Engineering	BE / B.Tech or equivalent degree in Electrical or Electrical and Electronics.
Electrical/ Computer Science	Systems Science & Automation	BE/ B.Tech or equivalent degree in Computer Science, Electrical, Electronics, Communication, Instrumentation, Mechanical, Chemical.
Electronics & Communication	Microelectronic Systems	BE/ B.Tech or equivalent degree in Electrical, Electronics and Communication, Computer Science, Electronics and Instrumentation.
	Signal Processing	BE / B.Tech or equivalent degree in Electrical, Electronics and Communication
	Telecommunication Engineering	BE / B.Tech or equivalent degree in Electronics & Communication, Telecommunication, Electronics, Electrical Engineering with specialization in Electronics & Communication .

Master of Design (M.Des)

Department	Eligibility	Admission Procedure
Product Design and Engineering.	BE / B.Tech/ B Des (CEED) / B.Arch (AR) in any discipline.	Short listing based on GATE/CEED score. Aptitude Test Personal Interview

Research Programmes

Courses	Specialization	Eligibility	Admission Procedure
Ph.D in Science	Astronomy & Astrophysics, Biochemistry, Ecological Sciences, High Energy Physics, Inorganic & Physical Chemistry, Materials Research, Mathematics, Mathematical Sciences (interdisciplinary), Microbiology & Cell Biology, Molecular Biophysics, Molecular Reproduction, Development & Genetics, Neuroscience, Organic Chemistry, Physics, and Solid State & Structural Chemistry.	Bachelor's or Master's degree in an appropriate field with minimum second class.	Qualifying in one of the following appropriate Tests such as CSIR - UGC, NET, UGC - NET, DBT JRF, ICMR JRF, JEST, NBHM, GATE, IISc Entrance Test.
M.Sc (Engg) and Ph D in Engineering	Aerospace Engineering, Atmospheric & Oceanic Sciences, Chemical Engineering, Civil Engineering, Computer Science & Automation, Earth Sciences, Electrical Communication Engineering, Electrical Engineering, Electronics Design & Technology, Instrumentation, Management Studies, Materials Engineering, Mechanical Engineering, Nanoscience and Engineering, Interdisciplinary in Nanoscience and Engineering, Product Design & Manufacturing, Sustainable Technologies, and Supercomputer Education & Research.	Bachelor's or Master's degree in an appropriate field with minimum second class.	Qualifying in one of the following appropriate Tests such as CSIR - UGC, NET, UGC - NET, DBT JRF, ICMR JRF, JEST, NBHM, GATE, IISc Entrance Test.

Integrated Ph D	Biological Sciences, Chemical Sciences, Physical Sciences and Mathematical Sciences	Bachelor's degree in an appropriate field with minimum second class.	IISc entrance Test Interview
External Registration Ph.D	Ph.D in Science Ph.D in Engineering (For working professionals in R&D organization or Faculties of recognized universities)	Bachelor's or Master's degree in an appropriate field with minimum second class.	Qualifying in one of the following appropriate Tests such as CSIR - UGC, NET, UGC - NET, DBT JRF, ICMR JRF, JEST, NBHM , GATE, IISc Entrance Test.

Master Of Management

Qualification	Eligibility	Admission Procedure
Bachelor's degree in Engineering / Technology or equivalent degree	First class	Short listing based on GATE/CAT score. Group Discussion Interview

Approximate Cut-off Marks (GATE Score) of Previous Session

Departments	Entrance Exam	Stream	GEN	OBC	SC	ST	PH
Electrical Communication Engineering	GATE	All Papers	650	650	400	400	400
		CS	650	650	250	250	600
Electrical Engineering	GATE	EC	600	600	250	250	550
		EE	500	500	250	250	450
		IN	650	650	250	250	600
		MH	600	600	250	250	600
		PH	600	600	250	250	600

Mechanical Engineering	GATE	AE	500	500	350	350	350
		BT	500	500	350	350	350
		CE	500	500	350	350	350
		CH	500	500	350	350	350
		CS	500	500	350	350	350
		EC	500	500	350	350	350
		EE	500	500	350	350	350
		ME	500	500	350	350	350
		MH	500	500	350	350	350
		PH	500	500	350	350	350
		PI	500	500	350	350	350
		XE	500	500	350	350	350
	IISC Entrance Test	All Papers	30	30	20	20	20

Civil Engineering	GATE	AE	315	315	198	198	198
		AG	386	386	259	259	259
		BT	319	319	165	165	165
		CE	332	332	216	216	216
		CS	323	323	221	221	221
		CY	389	389	235	235	235
		EE	321	321	193	193	193
		GG	328	328	190	190	190
		ME	319	319	209	209	209
		MH	321	321	182	182	182
		MN	323	323	192	192	192
		PH	320	320	208	208	208
		XL	319	319	190	190	190
	IISC Entrance Test	AS	22	22	17	17	17
		BC	22	22	17	17	17
		CY	22	22	17	17	17
		ES	22	22	17	17	17
		MA	22	22	17	17	17
		MG	22	22	17	17	17
MR		22	22	17	17	17	

Computer Science And Automation	GATE	AE	399	399	350	350	399
		CS	745	745	400	400	745
		EC	640	640	500	500	640
		EE	612	612	500	500	612
		ME	650	650	600	600	650
		MH	497	497	400	400	497
		PI	780	780	600	600	780
Instrumentation	GATE	AE	350	350	250	250	
		EC	450	450	218	218	250
		EE	450	450	193		
		IN	425	425	270	270	
		ME	450				
		PH	350	350	208	208	
		XE	325				
Biochemistry	GATE	All Papers	550	550	500	500	550
	IISC Entrance Test	BC	61	61	50	50	61

Centre For High Energy Physics	GATE	AE	590	590	400	400	400
		CS	590	590	400	400	400
		EC	590	590	400	400	400
		EE	590	590	400	400	400
		GG	590	590	400	400	400
		IN	590	590	400	400	400
		ME	590	590	400	400	400
		MH	590	590	400	400	400
		PH	590	590	400	400	400
	XL	590	590	400	400	400	
	IISC Entrance Test	AS	45	45	35	35	35
		BC	45	45	35	35	35
		CY	45	45	35	35	35
		MA	45	45	35	35	35
		MR	47	47	37	37	37

Centre For Earth Sciences	GATE	CE	350	350	0	0	0
		CY	500	500	200	200	0
		GG	100	100	0	0	0
		PH	340	340	0	0	0
	IISC Entrance Test	AS	25	25		30	
		CY	35	35	25	20	0
		ES	50	50	30	0	0
		MR	45	45	0	0	0
Centre For Electronics Design And Technology	GATE	CS	400	400	264	264	264
		EC	700	700	462	462	462
		EE	400	400	264	264	264
		IN	400	400	264	264	264
		CS	400	400	264	264	264
Aerospace Engineering	GATE	AE	495	495	345	345	445
		CE	595	595	415	415	535
		CH	595	595	415	415	535
		CS	595	595	415	415	535
		EC	595	595	415	415	535
		EE	595	595	415	415	535
		IN	595	595	415	415	535
		ME	595	595	415	415	535
		MH	595	595	415	415	535
		PH	595	595	415	415	535
		XE	495	495	345	345	445
	IISC Entrance Test	MA	40	40	28	28	36
		MR	40	40	28	28	36

Centre For Product Design And Manufacturing	GATE	All Papers	538	538	479	-	-
Super Computer Education & Research Centre	GATE	All Papers	550	550	300	300	
Centre for Nanoscience and Engineering	GATE	AE	450	450	400	400	
		BT	550	550	500	500	
		CH	450	450	400	400	
		CS	450	450	400	400	
		CY	550	550	500	500	
		EC	450	450	400	400	
		EE	450	450	400	400	
		IN	450	450	400	400	
		ME	450	450	400	400	
		MT	450	450	400	400	
		PH	550	550	500	500	
		PI	450	450	400	400	
		TF	450	450	400	400	
XE	450	450	400	400			

Interdisciplinary Program - Nanoscience And Engineering	GATE	AE	450	450	400	400	
		BT	550	550	500	500	
		CH	450	450	400	400	
		CS	450	450	400	400	
		CY	550	550	500	500	
		EC	450	450	400	400	
		EE	450	450	400	400	
		IN	450	450	400	400	
		ME	450	450	400	400	
		MT	450	450	400	400	
		PH	550	550	500	500	
		PI	450	450	400	400	
		XE	450	450	400	400	
	XL	550	550	500	500		
	IISC Entrance Test	AS	60	60	55	55	
		BC	65	65	60	60	
		CY	60	60	55	55	
		ES	60	60	55	55	
		MA	60	60	55	55	
MR		60	60	55	55		

Notification Dates	
Information Brochure and Application Forms by online	February
Information Brochure and Application Forms by person	March
Last date for submission of filled forms	March
IISC Entrance Test	April
Interviews	May - June
Reporting and commencement of course	July

NOTE 1 : Those students who are in the final year of their qualifying examination and awaiting results are also eligible to apply. However, they should have completed all the requirements for the award of their qualifying degree, including all examinations, dissertation projects, viva-voce, etc by July.

NOTE 2 : Candidates who join initially for the ME / M.Tech programmes may be permitted to transfer to the Ph.D programme, subject to academic assessments.

NOTE 3 : Candidates can choose to apply for a maximum of 5 disciplines from ME/ M.Tech and M.Des programmes.

NOTE 4 : Closing date to fill the online form is one week after the announcement of gate result though it is advisable to fill the form well in advance.

NOTE 5: While filling the online application you have to provide your preference for department as per your requirement.

NOTE 6 : Application form is available online only, information brochure is available on website www.iisc.ernet.in/admissions

NOTE 7 : All the candidates with BE/B.Tech in Engineering disciplines need to have a valid GATE score for any of the Research programmes except for Management Studies, Atmospheric & Oceanic Sciences in Engineering departments, and Ecological Sciences, Mathematics & Materials Science in Science departments. Candidates may become eligible for these departments by scoring good marks in IISc Entrance Test in respective areas (departments).

NOTE 8 : Diploma plus AMIE degree holders are not eligible to apply to any of the programmes at IISc.



IIT'S: Indian Institute of Technology

5.1.1 IIT Delhi

Courses	Specializations
Ph. D	Applied Mechanics., Biochemical & Biotechnical, Chemical, Chemistry, Civil, Computer Science, Mathematics, Mechanical, Physics, Textile Technology
M.Des	Industrial Design
M.S	Applied Mechanics, Chemical, Biochemical & Biotech, Computer Science, Electrical, Mechanical, Civil, Information Technology, Telecomm. Technology & Management
M.Tech	CE, ME, CS&IT, EE, AM

Department	M.Tech Specializations
Civil Engineering	Construction Engg. & Management
	Environmental Engg. & Management
	Rock Engineering & Underground Structure
	Geotechnical & Geoenvironmental Engg.
	Structural Engg.
	Water Resources Engg.
	Transportation Engg.
Mechanical Engineering	Design of Mechanical Equipment
	Thermal Engineering
	Production Engineering
	Industrial Engineering
Computer Science/IT	Computer Science & Engineering
	Computer Technology

Electrical Engineering	Communication Engineering
	Control and Automation
	Integrated Electronics and Circuits
	Power Electronics, Electrical Machines and Drives
	Power Systems
Applied Mechanics	Engineering Mechanics
	Design Engineering
Physics	Applied Optics
	Solid State Materials
Textile Technology	Fibre Science & technology
Care	Radio Frequency Design and Technology
Interdisciplinary Courses	Computer Application, Energy Studies, Industrial Tribology, Instrument Technology, Optoelectronics and Optical Communication, Polymer Science & Technology, VLSI Design Tools & Technology, Telecommunication Technology & Management.
Energy and Environmental Management.	This is Special part-time (evening) M. Tech course

Courses	Admission Type	Qualifying Degree	Eligibility	
			General & OBC	SC/ST/PH
M.Tech/ M.S	Direct Admission without Test/ Interview	B.E/B.Tech /M.Sc	GATE score above 300. 75% marks or 8.5 CGPA in qualifying degree	GATE score above 200. 70% marks or 7.5 CGPA in qualifying degree.
	Admission Through Interview/ Test	B.E/B.Tech/ M.Sc	GATE score above 300. 60% marks or 6.75 CGPA in qualifying degree	GATE score above 200. 55% marks or 6.25 CGPA in qualifying degree
M.Des	Direct Admission without Test/ Interview	B.E/B.Tech/ M.Sc	CEED percentile above 75. 75% marks or 8.5 CGPA in qualifying degree	CEED percentile above 50. 70% marks or 7.5 CGPA in qualifying degree.
	Admission Through Interview	B.E/B.Tech/ M.Sc	CEED percentile above 75. 60% marks or 6.75 CGPA in qualifying degree	CEED percentile above 50. 55% marks or 6.25 CGPA in qualifying degree

NOTE 1 : GATE score is waived off for B.Tech graduates from IITs with a CGPA of 8.0 or above.

NOTE 2 : The minimum duration of M.Tech., M.S. (Research) and M.Des. programmes is 4 semesters (24 months) for full time and 6 semesters (36 months) for part-time programmes.

NOTE 3: Reservation of Seats – General : 47.5%, OBC : 27%, SC : 15%, ST : 7.5%, PH : 3% and this reservation scheme is as per government rules and followed in IIT's, NIT's and other governments colleges.

Cut-off Marks						
Stream	Subject Specialization	GATE Score				
		GEN	OBC	SC	ST	PH
Civil Engg.	Structural	720	650	450	340	260
	Geotechnical & Geoenvironmental	680	630	400	340	260
	Transportation	550	495	409	307	260
	Construction Engg. & Management	450	350	301	329	260
	Rock Engineering & Underground Structure	420	348	268	252	260
	Environmental Engg. & Management	390	370	333	300	260
	Water Resources Engineering	330	308	248	248	260
Electrical Engg.	Power Electronics, EE Machines & Drives	750	700	480	450	465
	Power Systems	720	670	450	450	450
Electronics Engg.	Integrated Electronics & Circuits	825	760	480	480	480
	Communication Engg.	800	730	550	430	500
	Control & Automation	775	710	450	450	450
	Telecommunication Technology & Management	714	714	500	500	500
Instrumentation Engg	Instrument Technology	659	594	390	320	301
	Optoelectronics & Optical Comm.	710	675	500	360	350

Mechanical Engg.	Design of Mechanical Equipment	750	675	500	300	300
	Thermal Engineering	700	630	500	300	300
	Production Engineering	650	595	475	300	300
	Industrial Engineering	650	595	475	300	300
Computer Science /IT Engg.	Computer Technology	710	675	460	390	370
	Computer Applications	710	630	560	560	560
	Computer Science & Engineering	750	675	500	500	500

Note 1. IIT Delhi has its own procedure for the admissions in M. Tech Programme.

Note 2. It is very important to note that separate forms has to be filled if you are applying in different departments.

Note 3. Their are many inter-disciplinary courses that are offered by the IIT Delhi.

Note 4. It must be noted that in some particular departments for few specialization candidates of other disciplines are also eligible. eg, Industrial engineering course of mechanical engineering department is as well open for candidates having B.E. degree in computer science, electronics, electrical.

Note 5. If the candidate clears the cut-off given above in table then he/she is called for written examination in two specializations. The written Tests have the syllabus for the specific specializations, so it is advisable to prepare for the written test according to specialization for which the candidate is being called for.

Note 6. In the energy studies course, (inter-disciplinary) the students having B.E. degree in mechanical, instrumentation, electrical are also eligible.

Note 7. Students having B.E. degree in computer science/IT should take into consideration the following points:

- (i) M.Tech in computer application is a inter-disciplinary course in the Mathematics department and admits 20 students every year from a variety of disciplines.
- (ii) M. Tech in computer technology is under the electrical department and admits students every year from a variety of disciplines

Note 8. In IIT Delhi, some department take written test and some department conduct interview for the selections.

Note 9. If you have secured high GATE score but your CGPA or marks required by IIT Delhi is less than the minimum prescribed than you are not eligible to apply. (As per IIT Delhi norm, it is more than 60% or 6.75 on a 10 point scale)