

ACKNOWLEDGEMENT

Conducting an examination of this importance and magnitude involves the support and cooperation of many individuals and institutions.

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The success of IIT-JEE 2012 was in no small measure due to the hard work put in by every member of the Joint Implementation Committee (JIC-2012). The JIC-2012 was different in many respects. The team was willing to think innovatively and take path-breaking decisions which resulted in many new initiatives.

We thank the Directors of other participating institutions for their cooperation and contribution.

Several faculty members, technical and administrative staff members of all the IITs took part in many activities ranging from confidential work to serving as institute representatives. We thank all the faculty and staff who have contributed in any way to the conduct of IIT-JEE 2012.

Our thanks are also due to an important cog in the wheel of the JEE machinery, the staff working in the JEE offices of all the participating institutes. Their contribution in the success of every JEE, including JEE-2012, is immense. We especially would like to highlight the contribution of Mr. Dinesh, Mr. Lekhraj Sharma, Mr. Ashok Kumar, and Mr. Kishori Lal of the JEE office, IIT Delhi to ensure that all the tasks were carried out in time, including among other things, a number of sleepless nights.

IIT Delhi JEE Team 2012

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Introduction:

The Joint Entrance Examination, popularly known as JEE, is jointly conducted by IIT Bombay, IIT Delhi, IIT Guwahati, IIT Kanpur, IIT Kharagpur, IIT Madras and IIT Roorkee. This is a 50-year old examination; more than 500 thousand applicants compete for approximately 9600 seats in 16 Indian Institutes of Technology located in different parts of the country and Indian School of Mines, Dhanbad.

Joint Admission Board is the body which is responsible for framing all the policies covering: eligibility for writing the examination, minimum marks one has to score in aggregate or at subject level, eligibility criterion, number of attempts one can make, mode of counseling and number of rounds of seat allocation. The members of the JAB-2012 are listed below:

1.1 JOINT ADMISSIONS BOARD (JAB-2012)

No.	Name	Position
1.	Prof. Devang V Khakhar Prof. Avinash Mahajan Prof. Tom Mathew	Director, IIT Bombay Chairman, JEE Vice Chairman, JEE
2.	Prof. M Chakraborty	Director, IIT Bhubaneswar
3.	Prof. Surendra Prasad Prof. R.K.Shevgaonkar Prof. G.B. Reddy Prof. Rajesh Khanna Prof. Narayanan Kurur	Chairman, JAB-2012 & Director, IIT Delhi upto October Chairman, JAB-2012 & Director, IIT Delhi from October Organizing Chairman JEE Org. Vice Chairman, JEE Org. Vice Chairman, JEE
4.	Prof. Sudhir Jain	Director, IIT Gandhinagar
5.	Prof. Gautam Barua Prof. Bishnupada Mondal Prof. S. Senthilvelan	Director, IIT Guwahati Chairman, JEE Vice Chairman, JEE
6.	Prof. U B Desai	Director, IIT Hyderabad
7.	Prof. P Mathur	Director, IIT Indore
8.	Prof. S G Dhande Prof. S.K. Choudhury Prof. Rajesh Srivastava	Director, IIT Kanpur Chairman, JEE Vice Chairman, JEE
9.	Prof. D Acharya Prof. A. R. Mohanty Prof. K. U. M. Rao	Director, IIT Kharagpur Chairman, JEE Vice Chairman, JEE
10.	Prof. B. Ramamurthi Prof. Arindama Singh Prof. R. Sarathi	Director, IIT Madras Chairman, JEE Vice Chairman, JEE
11.	Prof. T A Gonsalves	Director, IIT Mandi
12.	Prof. Anil Bhowmick	Director, IIT Patna
13.	Prof. P K Kalra	Director, IIT Rajasthan
14.	Prof. S C Saxena Prof. P. Banerji Prof. U P Singh Prof. M.L. Sharma	Director, IIT Roorkee Director Chairman, JEE Vice Chairman, JEE
15.	Prof. M K Surappa	Director, IIT Ropar
16.	Prof. T. Kumar Prof. D.C. Panigrahi Prof. M. Jawed Prof. G. Udayabhanu	Director, ISM Dhanbad Director, ISM Dhanbad Chairman, JEE Vice Chairman, JEE

No.	Name	Position
17.	Prof. K P Singh	Director, IT BHU
	Prof. J.N.Sinha	Director
	Prof. Dhananjai Pandey	Director
	Prof. P.K.Jain	Chairman, JEE
	Prof. Prof. S. H. Hasan	Vice Chairman, JEE

1.2 Scheduled meeting of JAB and major policy changes approved

The Joint Admissions Board (JAB-2012) met five times including the first meeting, which was the combined meeting of JAB-2011 and JAB-2012.

- a. First JAB meeting: August 26, 2011 at IIT Delhi
Prof. S.G. Dhande, Director IIT Kanpur and Chairman JAB 2011 initially chaired the meeting while Prof. S.K. Choudhury, Organizing Chairman, JEE-2011 presented statistical report and analysis based on facts and figures related JEE-2011 to JAB. After the presentation by Prof. Choudhury was over, Prof. Dhande handed over the charge of the Joint Admissions Board to Prof. Surendra Prasad Director, IIT Delhi, who became the Chairman of JAB 2012. Prof. Surendra Prasad introduced Prof. G. B. Reddy as the Organizing Chairman of IIT-JEE 2010 and requested him to present the agenda items related policy issues for conducting IIT-JEE 2012. Prof, G.B.Reddy then presented the agenda items and also the timeline for the conducting IIT-JEE 2012.
- b. Second JAB meeting: October 18, 2011 at IIT Delhi
- c. Third JAB meeting: February 23, 2012 at IIT Delhi
- d. Fourth JAB meeting: June 23, 2012 at IIT Delhi
- e. Fifth JAB meeting: August 5, 2012 at IIT Delhi

In the first meeting the Board made the following policy decisions:

1. **Change of Name:** JAB decided to change the name of the Joint Entrance Examination (JEE) as Indian Institutes Technology-Joint Entrance Examination and refer it as IIT-JEE followed by the year in which it is held.
2. **Date of Examination:** JAB decided to conduct IIT-JEE 2012 on 8th April 2012. The examination will consist of two paper of three hours duration each.
3. **Conversion of Vacant PD seats into non-PD seats of respective categories**

It was observed that during the past few years several seats meant for PD category candidates remain unfilled (after preparatory course allotment). It was resolved that such unfilled PD seats after preparatory

4. **Pencil/Pen bubble shading of ORS**
The JIC-2011 decision to recommend pen filling of the ORS was considered and approved. It was also decided to design the ORS in such way that candidates can take away.
5. **Display of ORS images**
It was decided that the practice started in 2011 of candidates being shown the image of their ORS would be continued. Resolved that this facility would start a few days after result declaration and last till a few days before the first round of seat allotment

6. JAB meetings numbering scheme

Decided to adopt assign a unique the numbering system to refer every JAB meeting. For example, the second meeting of JAB-2011 would be JAB.1.2

- 7. Special provisions to blind candidates:** The provision for amanuensis was recommended. Wherever possible, detailed explanation of the figures accompanying questions will be provided. If it cannot be supplied, relief from attempting such questions, as identified by the paper setters, will be provided and the scores will be

In the 2nd meeting the Board made public the following qualifying criteria for IIT-JEE.

8. Qualifying criterion

JAB decided the following criteria for declaring a candidate qualified JEE. "Candidates obtaining at least 10% in each subject and 35% in aggregate will be in a common rank list. OBC(NCL) candidates with at least 9% in each subject and 31.5% in aggregate will be in the OBC rank list, while SC/ST/PD candidates with at least 5% in each subject and 17.5% in aggregate will be in the respective rank lists. The SC/ST/PD preparatory rank lists will be prepared if the number of candidates in the respective list is less than 1.4 times the number of seats in that category. Candidates must secure at least 2.5% in each subject and 8.25% in aggregate to be in the preparatory rank list. The cut-offs in each category would be determined by the number of seats in that category".

In the 3rd meeting the Board made following policy for IIT-JEE of qualifying criteria public.

9. Length of the Merit Lists for Counselling

It was decided that candidates corresponding to two times the number of seats will be called for counselling in GE and OBC categories while it would be 3 times the number of seats for SC, ST, and PD categories. In case the length of the Rank List of any category is less than that of the corresponding merit list then counselling will be restricted to the candidates in Rank list only.

10. Approved EXIT policy

"Allow the person to withdraw his/her acceptance before the 3rd round allotment (counselling). As an incentive it is proposed to refund the fee (Rs. 40000 or Rs 20000 after deducting Rs. 1000 as processing fee) provided the information reaches JEE office in time so that the resultant seat is allotted to another aspirant in the third round of counselling".

11. Identity checking after Registration

JAB approved JIC proposal to supply all details of security features to establish the identity of the person at the time of registration in the Institute and also, thumb prints of candidates collected on the day of the examination for confirming that the person who wrote examination and who finally took the admission are the same or not.

12. Counselling fee reduction

Admitting Institutes will be given all details of security features to establish the identity of the person at the time of registration in the Institute. Also, thumb prints of candidates collected on the day of the examination will be made available to the Institutes

13. Implementation of Minority quota out of OBC quote

Decided to implement the minority reservation on rostering basis from the present academic year

In the 4th meeting the Board recommended the following resolution to the IIT Council for its consideration.

14. Nature and modalities of JEE-Advanced Examination 2013

- ❖ JEE-Advanced examination shall be conducted exclusively by IITs.
- ❖ There shall be a suitable time gap between the JEE-Main and JEE-Advanced so that the results of JEE-Main are available before the JEE-advanced.
- ❖ Only the top 1,50,000 candidates (including all categories) in JEE-Main will be qualified to appear in the JEE-Advanced Examination.
- ❖ Admission to IITs will be based only on category wise All India Rank (AIR) in JEE-Advanced subject to condition that such candidates are in the top 20 percentile of successful candidates of their Boards in respective categories.
- ❖ There will be separate JAB and JIC for JEE-Advanced with the present composition
- ❖ The JAB and JIC will also coordinate with organizing body responsible for conducting JEE-Main. JAB resolved these recommendations may be placed before the IIT Council and Senates of each IIT may be taken into confidence.”

In the 5th meeting the Board recommended to the IIT Council that the structure of the JEE-Advanced 2013 and syllabi be the same as that of IIT-JEE 2012.

1.3 Joint Implementation committee (JIC)

This committee, which consists of the JEE Chairman and the Vice-chairman of the seven IITs, had the constitution given below.

Prof. A. Mahajan	Chairman JEE 2012	IIT Bombay
Prof. Tom Mathew	Vice Chairman	IIT Bombay
Prof. G. B. Reddy	Org. Chairman JEE 2012	IIT Delhi
Prof. N. D. Kurur	Vice Chairman JEE 2012	IIT Delhi
Rof, Rajesh Khanna	Vice Chairman JEE 2012	IIT Delhi
Prof. B. P. Mandal	Chairman JEE 2012	IIT Guwahati
Prof. S. Senthilvelan	Vice Chairman JEE 2012	IIT Guwahati
Prof. S. K. Choudhury	Chairman JEE 2012	IIT Kanpur
Prof. R. Srivastava	Vice Chairman JEE 2012	IIT Kanpur
Prof. A. R. Mohanty	Chairman JEE 2012	IIT Kharagpur
Prof. K. U. M. Rao	Vice Chairman JEE 2012	IIT Kharagpur
Prof. A. Singh	Chairman JEE 2012	IIT Madras
Prof. R. Sarathi	Vice Chairman JEE 2012	IIT Madras
Prof. U. P. Singh	Chairman JEE 2012	IIT Roorkee
Prof. M. L. Sharma	Vice Chairman JEE 2012	IIT Roorkee

The committee had 11 meetings times to plan and execute the events according to the time schedule detailed below.

SNo.	Operation	Deadline /Duration	Action by or Venue
1.	Joint Admission Board-2012 : First Meeting	26 August 2011, Friday	IITD
2.	1st JIC-2012 Meeting at IIT Delhi	26-28 August 2011, Friday-Sunday	IITD
3.	Release of Short Advertisement (English and Hindi) for JEE-2012 in leading newspaper and on website	30 September 2011, Friday	IITD
4.	2nd JIC meeting at IIT Delhi (Instructions to setters, on ORS and preparations for CONOPS)	16-18 October 2011, Saturday-Sunday	IIT Delhi
5.	Release of Long advertisement of IIT-JEE 2012 in Employment News, Rojgar Samachar and National Dailies	22 October 2011, Saturday	IITD
6.	Upload full Advertisement and IB (PDF) file on the Website	22 October 2011, Saturday	IITD

SNo.	Operation	Deadline /Duration	Action by or Venue
7.	Online application website opens for candidates	31 October 2011, Monday	IITD
8.	Start date for Sale of offline OMR and IBs at Bank counters	11 November 2011, Friday	Zonal
9.	Last date for online application registration at 5 PM	10 Dec. 2011, Saturday	IITD
10.	Last date for issue of application forms from Banks	5 December 2011, Monday	Zonal
11.	CONOPS	7-20 December 16-29 December	ALL
12.	Last date for Receipt of filled (OMR) at respective IITs	5 PM, 15 December 2011, Thursday	Zonal
13.	3rd JIC Meeting at IIT Guwahati (JIPS, Guide lines finalization, exchanging inter zonal applications etc)	20-23 January 2012, Friday-Saturday	IITG
14.	4th JIC Meeting (to be synchronized with 2nd JAB-2012)	17-18 February 2012,	IITD
15.	5th JIC Meeting at IIT Bombay (keys handing over)	24 March 2012, Saturday	IITB
16.	Examination IIT-JEE 2012	08 April 2012, Sunday	Zonal
17.	Coding Operations (10 days operation)	11-20 April 2012, Thursday – Monday	Zonal
18.	Starting date for machine reading of ORS	20 -2 May 2012, Monday	Zonal
19.	6th JIC Meeting at IIT Madras (freeze solution)	29th April 2012	IITM
20.	Answer-Keys Published in website	07 May 2012, Monday	IITD
21.	7th JIC Meeting at IIT Delhi (for processing and preparation of JEE – 2012 Result)	14-16 May, 2012 Monday – Wednesday	IITD
22.	Declaration of IIT-JEE 2012 Results (including Preparatory) through website and IVRS and dates for counseling.	18 May 2012, Friday, 8:00AM	Zonal
23.	Online choice filling for all categories (18 days)	19 May-10 June, 2012 Saturday – Sunday	IITD
24.	Web display of ORS of all candidates (19 days)	21 May -8 June 2012 Monday-Friday	Zonal
25.	Posting of call letters for counselling	21-22 May 2012, Monday-Tuesday	Zonal
26.	Online registration Venue booking for ADAPT	25 May 2012, Friday	Zonal
27.	Architecture and Design Aptitude Test	03 June 2012, Sunday	All IITs
28.	Medical Examination for Qualified PD candidates	03 -06 June, Monday - Tuesday	All IITs
29.	Declaration of Aptitude Test Results	08 June 2012, Friday	IITD
30.	Closure of JCOP portal for choice registration	10 June 2012, Sunday	Zonal
31.	8th JIC Meeting at IIT Delhi (for First round course allocation)	11-16 June 2012,	IITD
32.	Website release of first round course allocation results	9 AM, 14 June 2012, Thursday	IITD
33.	9th Eight JIC Meeting at IIT Delhi (for 3rd round allocation & exchanging the original applications)	23 July 2012,	IITD

SNo.	Operation	Deadline /Duration	Action by or Venue
34.	Website release of second round course allocation results	9 AM, 25 June 2012, Monday	IITD
35.	10th Eight JIC Meeting at IIT Delhi (for 3rd round allocation & exchanging the original applications)	10-12 July 2012,	IITD
36.	Website release of third round course allocation results	9 AM, 6 July 2012, Friday	IITD
37.	11th JIC Meeting (Review meeting)	30 July 2012, Monday	IITR
38.	Finalization of account statement	06 August 2012, Monday	IITD
39.	Finalization of Report	20 August 2012, Monday	IITD
40.	Pre JAB combined Meeting of JIC- 2012 & JIC-2013	26-27 August 2012,	IITD
41.	JAB Meeting for 2012	27 August 2012,	IITD

The committee took the following major initiatives:

- Implemented carbon copy paper based Optical response sheet for the first time in JEE system.
- Declared the category wise absolute cut-off marks (for each subject and aggregate) for ranking the candidates well in advance. This step in fact allowed the candidates to maximize the aggregate marks after ensuring the minimum marks in individual subject. It definitely reduced the anxiety of the kids preparing for IIT-JEE.
- Well before announcing the IIT-JEE 2012 results, we displayed the images of the answer sheets of both papers of 479651 candidates along with the machine read answers and invited the candidates to submit their review request in can they perceive any error in reading their responses. This decision of was well received by the public. We have set a standard for such examinations.
- Strengthened the security of post-examination operation by not printing any identifying marks such as scan numbers on ORS.
- Provided "Exit" option for candidates who accepted the first/second allotted seat in anticipation of improvement. This decision also resulted in reducing the post-registration date vacancies. This year the number has come down to 340, which is less than 50% of the vacant seats in preceding years.
- Converted the unfilled PD seats back to respective categories. This step was thought to be not permissible in earlier years.
- Conducted four rounds of seat allocation, payment of registration fee as mark of seat acceptance without any technical snag.
- Used open quotations policy for bringing transparency in material procurement process.

1.4 Legal Matters

A summary of the cases relating to JEE 2012 is as follows:

S.No.	Writ No.	Filed by	Status
1.	W. P. (C) 3648/12 In the High Court of Jharkhand, Ranchi	Kamal Kumar Vs. UOI & Ors.	Petition filed on the ground that he was eligible for admission in IIT JEE 2012 as an OBC candidate. His admission had been refused as he had submitted his OBC certificate after the due date. Petition is finally

S.No.	Writ No.	Filed by	Status
2.	W. P. No.24886/12 In the High Court of AP at Hyderabad	R. Nikhil Sidharth Vs. UOI & Ors.	Petition regarding marks not being awarded in Q. No. 6 of Paper II.
3.	W. P. (C) No. /12 In the High Court of Jharkhand, Ranchi	Tausif Raza Vs. UOI & Ors.	Petition to quash the letter dt. 6/7/12 rejecting the English version of submitted OBC Certificate in which the caste is not mentioned
4.	W. P. (C) 2275/2010 In the High Court of Delhi	Dr. Rajeev Kumar Vs.UOI & Ors.	Regarding formation of a transparent and accountable mechanism, to minimize irregularities in JEEs and formulation of a single examination to engineering institutions. Ongoing.
5.	W. P. (C) 7752/11 in the High Court of Delhi	Nitul Datt Vs. UOI & Ors.	Regarding Vacant Seat for the last five years. Ongoing.
6.	W. P. No. 8900/12 In the High Court Madras	A. Nandhini Vs.UOI & Ors.	Prayer to issue admit card despite not filling the online application form. Disposed off in favor of IIT-JEE.
7.	CWP No. 9119/12 in the High Court of Rajasthan(Jaipur)	Syed Afshan Ali Vs. Chairman, JEE IIT Delhi	Reservation provided for and not declaring result of the petitioner in OBC(NCL)-Minority category despite submitting the category certificate. Petition withdrawn by the petitioner.
8.	W. P. No. 15593/12 In the High Court of Andhara Pradesh	S. Wazeed Baba Vs. UOI & Ors.	Petition to fill up the seats as per the 4.5 % reservation under OBC(NCL) minorities
9.	SLP (C) 607/2011 in the High Court of Allahabad	Sujeet Chaudhary vs. U of I and Ors.	Appeal questioning the decision to not allow those who have taken admission or accepted the admission by paying the registration fee at any of the IITs to write JEE again. Appeal rejected but considering the circumstances a seat might be offered in JEE-2012, if conditions permit and without any obligation.
10.	W. P. (C) No. 2012 in the High Court of Delhi	Adil Irfan Vs. UOI & ors.	Petition seeking consideration in the OBC (NCL)-Minority category despite not providing the declaration in time. Petition rejected.
11.	LPA(Civil) No. of 2012	Prateek Rohilla Vs. IIT Delhi & Ors.	Appeal by the petitioner to appear in JEE 2012 although he rejected the seat after paying the registration fees to accept the seat offered to him in JEE-2011. Appeal rejected.
12.	WP(PIL)NO.112&143 of 2011 in Gujarat High Court	Shree Sayaji Vaibhav S.P. Vs. UOI & ors.	PIL filed regarding induction of Gujarati language in JEE question paper.
13.	WP (C) 3777/2012 in the Delhi High Court	Amit Kumar Vs. IIT Delhi	Petition challenging the Medical Board assessment that he did not meet the minimum physical disability requirements for consideration in the PD category.
14.	Complaint to the PD Commissioner	Nauman Ansari Vs. IIT Delhi	Regarding deprivation of PD entitlement despite having 82% disability. Petition granted.
15.	WP No.15784/2012 In the High Court of Madras	V. Sathis Kumar Vs. Dist. Collector & IIT Delhi	Direction to respondent #1 to issue a caste certificate.

S.No.	Writ No.	Filed by	Status
16.	CWP No.11964/12 In the High Court of Punjab & Haryana, Chandigarh	Abhinav Vs. IIT Roorkee, IIT Delhi, and SDM (Chandigarh)	Regarding rejection of OBC certificate issued before 1 Jan 2012.
17.	CWP No.6714/2012 In the High Court of Raj at Jodhpur	Shikha Nagal Vs. UOI & Ors.	Regarding not considering the petitioner as OBC for admission.
18.	WP(MD)No.7078/12 In the High Court of Madras - Madurai Bench	V. Harshan Vs. Chairman JEE IIT Madras & IITD	Seeking a change from General Category to OBC after result declaration.
19.	SBCWP No.9334/12 in the High Court of Rajasthan	Arun Singh Shekhawat Vs. UOI & Ors.	Filed petition for inclusion in the counselling process.
20.	W. P. 3802/2012 in the High Court of Madhya Pradesh – Gwalior Bench	Rajnandhini Sharma vs. U of I and Ors.	Redress for problems ensuing from the wrong questions in paper 2.

SECTION II

1. IIT-JEE 2012 Results

❖ The Joint Entrance Examination for the year 2012 (IIT-JEE 2012) was conducted on Sunday, April 8, 2012 at **1067** examination centres in 133 cities all over India and also in Dubai city. Of the 506484 candidates registered for IIT JEE, 479651 appeared in both papers. The results of IIT-JEE 2012 were announced as per schedule on May 18, 2012. The results were processed as per the decisions made in the Joint Admissions Board (JAB) meeting held on 16 October 2011 at IIT Delhi. The results were displayed on the JEE websites (of the seven zones) and on notice boards of seven IITs.

❖ The Table below provides a brief category-wise summary of the number of candidates who appeared and qualified in the examination.

Candidates	GE	OBC	SC	ST	Total
Appeared	277931	136570	46610	18540	479651
Qualified	14682	4853	3465	1112	24112

❖ A common merit list (CML) of **18868** candidates was prepared keeping 35% marks of aggregate as cut-off and 10% marks in each subject. This list contains **14591** General (GE), **3449** OBC, **340** SC and **88** ST. This list also includes **32** candidates who declared themselves as foreign nationals.

❖ Separate merit lists were prepared for OBC, SC, ST and PD candidates with relaxations of 10%, 50%, 50% and 50% of marks in subject level and aggregate marks respectively. These lists contained **4853** OBC, **3465** SC, **1112** ST and **167** PD candidates.

❖ A total of **2425** PD candidates (self declared) appeared in IIT-JEE 2012 and **167** of them qualified based on the relaxed norms. Out of these **101** were GEPD, **60** were OBCPD and **6** were SCPD candidates.

❖ In all **24112** candidates qualified in IIT-JEE 2012.

- ❖ IIT-JEE2012 was conducted for admissions to 15 IITs, ITBHU and ISM Dhanbad. The fifteen IITs are at Bhubaneswar, Bombay, Delhi, Gandhinagar, Guwahati, Hyderabad, Indore, Kanpur, Kharagpur, Madras, Mandi, Patna, Rajasthan, Roorkee and Ropar. The total number of seats available in these 17 institutions across all categories was **9647**.
- ❖ As per the directives of the Chief Commissioner for Person with disabilities and decision of the JAB, 3% of the seats available in each vertical category were reserved for PD candidates. A roster system to reserve the PD seats across various institutes and courses was followed in 2012 continuing on the 2010 roster.

The breakup of seats for different categories across all the 17 institutes is as follows:

	GE	OBC	SC	ST	Total
Total Seats available	4722	2536	1403	708	9369
For PD candidates	138	77	43	20	278

2. Counselling

Of the 24112 qualified candidates, 17465 candidates were shortlisted for seat allocation. Amongst these 16325 candidates registered online for the counselling and paid the fee. Only 15893 candidates filled the course choices. Zone-wise data is shown in the table.

Institute (zone)	Candidates Qualified	Called for Counselling	Candidates who paid counselling fees
IIT Bombay	5562	4240	4013
IIT Delhi	4108	2906	2727
IIT Guwahati	1280	971	919
IIT Kanpur	2938	2102	1980
IIT Kharagpur	2616	1863	1714
IIT Madras	5004	3666	3265
IIT Roorkee	2604	1717	1617
Total	24112	17465	16235

3. Medical Board Examination

This year medical boards for verifying the PD status of the candidates qualified under PD category and PD preparatory candidates were conducted on 4th, 5th and 6th June 2012 in Bombay, Delhi, Guwahati, Kanpur, Kharagpur and Madras. All PD candidates had to register online for a medical examination at one of the Medical board venues. Of the 167 PD candidates, 129 candidates were found to eligible for PD seats in IITs.

4. Candidates not filled choices

Out of the 8030 GE candidates in the CML, 514 did not fill the course choices. Amongst the 4853 OBC candidates, 573 did not fill the choice sheets. In the SC category, 333 candidates of the 3466 did not exercise their choice whilst in the ST case it was 59 out of 1112. All except one of the 129 PD candidates filled the choices.

5. AAT-2012 Test

The AAT-2012 test was administered at all the seven IITs on 3rd June between 9:00 am and 12 Noon. A total of 726 candidates wrote the test. The zone-wise numbers of candidates registered is given in Table X1. The aptitude test for Architecture was conducted.

The cutoff mark for qualifying the aptitude test was fixed at 35% (105 marks) of the maximum in consultation with the evaluating faculty members.

6. Counselling statistics

Out of the 16325 candidates who were eligible to fill the choice sheets, 432 did not fill the choices. The following tables summarize the allocations zone wise.

Table x1: Zone wise number of candidates registered for Architecture Aptitude Test -2012		
Institute (zone)	Candidates attended	Candidates Qualified
IIT Bombay	88	72
IIT Delhi	291	230
IIT Guwahati	23	19
IIT Kanpur	111	74
IIT Kharagpur	84	66
IIT Madras	80	59
IIT Roorkee	49	30
Total	726	550

No.	Zone	Allotted	Not allotted	Total
1	Bombay	2506	1734	4240
2	Delhi	1597	1309	2906
3	Guwahati	516	455	971
4	Kanpur	1121	981	2102
5	Kharagpur	995	868	1863
6	Madras	1970	1696	3666
7	Roorkee	871	846	1717
	Total	9576	7889	17465

7. First Round seat Allocation

A total number of 9500 candidates were allotted seats in the first round of seat allotment of which 9073 candidates paid the fees to accept the offer of admission. These 9073 candidates were also eligible for the subsequent rounds of seat allocation and an

upgrade of their choice, if permissible. The 427 who did not pay the registration fee were eliminated from further rounds of the counselling. In the second round, 434 candidates were allotted seats afresh, while in the third round this number was 641. The number of candidates whose seat underwent a change between the first and second round was 2051 while this number was 2549 between the second and third rounds.

	GE	GEPD	OBC	OBCPD	SC	SCPD	ST	SPD	Total
Seats available	4722	138	2536	77	1403	43	708	20	9647
Candidates who filled choice sheets	7428		4280		3132		1053		15893
Seats allotted	4761		2648		1442		725		9576

As is evident from the table below, the number of boys allotted seats in the 17 institutes outnumbered the girls significantly.

Male and female number of candidates who got seat offers in all 17 Institutes.			
	Male	Female	Total
IIT Bhubaneswar	108	10	118
IIT Bombay	793	88	881
IIT Mandi	107	12	119
IIT Delhi	757	91	848
IIT Indore	97	22	119
IIT Kharagpur	1189	143	1332
IIT Hyderabad	176	23	199
IIT Rajasthan	142	16	158
IIT Kanpur	753	72	825
IIT Madras	729	104	833
IIT Gandhinagar	109	9	118
IIT Patna	110	9	119
IIT Roorkee	1025	124	1149
ISM Dhanbad	878	67	945
IIT Ropar	112	8	120
IT-BHU Varanasi	959	83	1042
IIT Guwahati	595	56	651
Total	8639	937	9576

The following table shows the candidates from various zones who paid the registration fee after the first, second, third and fourth round of seat allotments:

No.	Place	Number
1	IIT Bombay	2506
2	IIT Delhi	1597
3	IIT Guwahati	516
4	IIT Kanpur	1121
5	IIT Kharagpur	995
6	IIT Madras	1970
7	IIT Roorkee	871
	Total	9576

The institute wise and gender and category wise seat allotment data is given below:

	General	OBC	SC	ST	Total
Seats available	4722(138)	2536(77)	1403(43)	708(20)	9647
Candidates who filled choice sheets	7428	4280	3132	1053	15893
Seats allotted	4761	2648	1442	725	9576

In the table above, the number in paranthesis is the number of seats reserved for persons with disability.

8. Supernumerary seats

Ten (10) supernumerary seats were created due mainly to issues related to the category certificates. In addition, the following ten foreign national candidates were allotted supernumerary seats:

1041085 (B4125), 1041377 (B4117), 2054584 (J4125), 5077255 (U4111), 6019501 (G5504), 6089352 (M5217), 6094389 (K4201), 6095274 (G4101), 6095362 (D4117), 6126114 (M4107).

9. Preparatory Course Counselling and seat allocation

No SC or ST preparatory list was made since the number of qualified candidates exceeded 1.4 times the number of seats in the respective categories. A total 158 seats were transferred to PD preparatory course after making allotment to regular PD candidates. The zone-wise number of qualified preparatory PD candidates is given in the table below:

	Bombay	Delhi	Guwahati	Kanpur	Kharagpur	Madras	Roorkee	Total
Prep. PD qualified	38	22	46	30	33	40	24	233
Prep. PD attended	22	14	28	15	21	22	4	126

Medical examinations of the preparatory PD candidates were carried out along with the PD candidates as stated earlier. The zone wise distribution of candidates and the numbers who attended the medical examination are also given above. Amongst these 59 GEPD, 50 OBCPD and 6 SCPD candidates were allowed to fill the choices online for the preparatory course. Of the 158 seats earmarked for the preparatory courses in the 17 institutions, only 82 candidates were allotted seats. The vacant preparatory seats were transferred to their respective categories.

STATISTICAL ANALYSIS OF JEE 2012 APPLICATIONS

Section A: Registration data and trends

The zone wise distribution of the total number of appeared and qualified candidates along with their category are given in **Tables A1 and A2**. Out of a total of 506484 (in JEE-2011 – 485136) candidates who registered in all zones, 479651 (in JEE-2011 468280, 96.5%) candidates (94.7%) appeared for the examination. This represents an increase in the number of candidates relative to 2011, which however is offset by an increase in the absentees by almost two percentage points. A total of 24112 (5.02%) candidates

qualified for counselling. This cannot be compared with the data in 2011 as the qualification criteria adopted in the two years were different.

The zone wise distribution of qualified candidates is: Bombay 5562 (23.06%) (in JEE-2011 –3248, 24.6%), Delhi 4108 (17.03%) (in JEE-2011 –2106, 15.9%), Guwahati 1280 (5.31%) (in JEE-2011 –534, 4.04%), Kanpur 2938 (12.38%) (in JEE-2011 –1523, 11.54%), Kharagpur 2616 (10.84%) (in JEE-2011 –1511, 11.4%), Madras 5004 (20.75%) (in JEE-2011 –3049, 23.1%) and Roorkee 2604 (10.80%) (in JEE-2011 –1225, 9.28%). The percentages are comparable with the data of JEE 2010.

Category-wise distribution

The Category wise distribution of appeared candidates is shown in **Table A1**. 57.95% of the candidates who appeared in JEE 2012 are GE candidates, 28.47% are OBC candidates, 9.72% are SC candidates and 3.87% are ST candidates.

The Category wise distribution of qualified candidates is shown in **Table A2**. 60.47% of the qualified candidates were GE candidates, 19.87% were OBC candidates, 14.34% were SC candidates, 4.61% were ST candidates, and 0.692% were PD candidates.

Despite the different qualification criteria adopted in 2011 and 2012, the category-wise distribution does not show a marked change.

City of origin of applicants

It was observed that 15 cities accounted for 50% of the registered candidates (see **Table A3**). Patna led the way with more than 38000, followed by Delhi and Jaipur with 36,000 and 34,000 respectively. The fourth biggest city, Hyderabad, had almost 10000 less than Jaipur.

Gender wise distribution

Table A10 shows the zone wise distribution of registered, qualified, counseled, and admitted candidates according to gender. The number of female candidates registered in JEE-2012 is 168568, which is 33.28% of the total registered candidates. Out of the 24112 candidates who qualified, 2886 are female candidates (11.97%). In JEE 2011, 1086533 female candidates appeared (23.2%) and 1443 qualified (11.2%). Presumably as a result of the drastic reduction of the application fees for girls, a ten percentage point increase in the female registration observed. Disconcertingly, this increase has only a marginal increase in the percentage of qualified female candidates.

Number of attempts

The data shown in **Table A15** reveals that close to 60% of the qualified candidates did so in their first attempt. Candidates attempting JEE for the second have a higher success rate. Eleven percent (11%) of such registered candidates qualified in the examination while this number reduced to three percent for those appearing in the JEE for the first time.

TREND ANALYSIS

Trend analysis has been carried out using historical data. Table B1 captures the trend in the number of registered candidates for the last 15 years. The number of candidates registered shows a more than 5-fold increase in the last 15 years, reaching an all time high of 506484 total registered candidates in the year 2012. The increase in the number of total registered candidates in 2012 as compared to the same in 2011 is however only about 4.4 %, as compared to about 2 % increase from 2010 to 2011, which is, in all likelihood the result of decreasing the application fee for females.

Interpreting the zone-wise data of registered candidate of 2012 and especially the comparison with 2011 requires caution as there was a reorganization of centers between Bombay, Delhi, and Roorkee so as to control the increasingly unmanageable numbers in the Bombay zone. The opening of centers in Alwar and Sikar along with the transfer of Udaipur to Delhi has eased the situation in Jaipur as evidenced by the reduction in Bombay by almost 10%. Madras has shown a tremendous jump, close to 15% increase, between 2011 and 2012.

Table B2 captures the trend in terms of the candidates belonging to various categories. The number of GE candidates has increased approximately **two** times in the last ten years, whereas, over the same period, the number of SC and ST candidates has increased **four** and **six** times, respectively. This may be attributed to the increase in the number of seats available in the various reserved categories and due to the importance given to JEE by the eligible students in the various categories. The number of OBC, SC, and ST category candidates has relatively remained unchanged between 2011 and 2012.

Table B3 captures the trend in terms of the language of question paper used. Approximately 85 % of the candidates used English question paper and about 15% used the Hindi question paper in the JEE- 2012 as was the case in 2011 and 2010. Till about the mid 2000s this ratio was close to 90 % for English and 10 % for Hindi and has increased to the present ratio.

Table B4 captures the trend in terms of number of attempts. In JEE-2012, about 80 % of the candidates have attempted JEE for the first time and about 20 % have attempted JEE for the second time. As can be seen in Table B4, since 2007, except for minor differences this ratio has remained constant and may be attributed to the introduction of a ceiling on the number of attempts allowed in JEE.

Table B5 captures the gender-wise trend in the number of registered candidates. Expectedly, the reduction in the application fee for females has led to an increase in the fraction of girls registering for JEE. In the 1990s the ratio was close to 10 to 1 in favor of boys, which decreased to 7 to 1 in the early 2000s, to 4 to 1 in the mid and late 2000s, to 2 to 1 in 2012. In 2011 it was observed that this ratio “is approaching close to 1 female candidate for every three male candidates”.

JEE-2012 Result Analysis

JEE-2012 Question paper

JEE-2012 had two papers; each had three parts - Physics, Chemistry, and Mathematics. In both the papers, parts 1, 2, and 3 contained 20 questions each in Physics, Chemistry, and Mathematics, respectively. The questions were numbered consecutively in both the papers.

In Paper-1, each part had three sections. Section-1 had 10 multiple choice questions each having one correct answer with maximum of 3 marks; Section-2 had 5 multiple choice questions each having one or more correct answer(s) with maximum of 4 marks; Section-3 had 5 integer answer type questions each having maximum of 4 marks. There were negative markings for wrong answers in Section-1, but no negative markings in Sections-2 and 3.

In Paper-2, each part had three sections. Section-1 had 8 multiple choice questions each having one correct answer with maximum of 3 marks; Section-2 had 6 multiple choice questions relating to three questions with 2 questions on each paragraph and having only one correct answer with maximum of 3 marks; Section-3 had 8 multiple choice questions each having one correct answer with maximum of 4 marks. There were negative markings for wrong answers in Section-1 and Section-2, but not in Section 3.

A candidate could have scored anything between –30 to 210 in Paper-1, and between –42 to 198 in Paper-2. That is, marks of a candidate might have taken any value between –72 to 408, with the minimum and maximum possible marks in each subject being –24 and 136, respectively. In two questions, one each in Chemistry and Mathematics of Paper 2 worth 3 and 4 marks respectively, all candidates were awarded zero

marks. Therefore, the minimum and maximum possible marks in the Chemistry part would be -23 and 133 while that of Mathematics would be -24 and 132 respectively.

Relaxations of 10% and of 50% were given on the average marks in each subject for considering the OBC and SC/ST/PD category candidates for ranking.

The minimum mark scored was -64 (minus sixty four) and the maximum mark was 385. The rounded off average marks secured in Physics, Chemistry, and Mathematics by the candidates were 16, 17, and 13, respectively. The following are a few observations regarding the performance of candidates in JEE-2012.

1. The highest aggregate marks scored by a candidate in JEE-2012 were 385, that is, 96.0% of 401 marks.
2. Only 27 candidates scored above 350 marks. 275 candidates scored above 300 marks.
3. The mark scored by the last ranked candidate in the Common Merit List (CML) was 141. This was the aggregate cut-off for CML.
4. The maximum marks scored out of 136 in Chemistry, Physics, and Mathematics were 133, 132, and 132 marks.
5. The number of candidates who scored more than 120 in Chemistry, Physics, and Mathematics were respectively 31, 17, and 38, respectively.
6. The minimum marks scored in Chemistry, Physics, and Mathematics by candidates in CML were 14, 14, and 14, respectively. In fact, there were many candidates with relatively poor performance in a particular subject despite having high aggregate marks.

It is observed that there had been very low cut-off marks in individual subjects in JEE for the past few years. Since time management skill has more effect in a competitive examination like JEE, the low marks scored in a particular subject along with high aggregate score does not necessarily establish the candidate's low proficiency in that subject. Therefore, minimum level of proficiency in each of the three subjects, even though with low individual cut-off scores, as demanded in JEE is reasonable.

A frequency distribution of candidates according to their marks in the three subjects and the aggregate marks are presented in the figures on pages 20-23. It may be noted that each of the graphs in the figures is skewed to the left. Though the range of scores of a candidate in Physics was -24 to 136 and Chemistry was -23 to 133, and that in Mathematics is from -24 to 132, the rounded off means (17, 16 and 13) of these distributions are much lower than the mid points of the modes. The distributions of the subject marks are almost identical with that of the aggregate marks.

Since the aim of the JEE is to single out about 10000 best candidates out of about 5 lakh candidates, the questions are framed with a high level of difficulty. The highest score in JEE-2012 is 385 out of 401, i.e, 96.0%. This was 91.7% in JEE-2011, 85.5% in JEE-2010, 88.3% in JEE-2009 and 88.5% in JEE-2008. Looking at the competitiveness of the examination, the highest score is up to the mark. It is also evident that the difficulty level of the question papers in JEE-2012 has decreased substantially. The question paper setters were given guidelines to frame questions in such a way that at least 30% of the questions can be attempted by any candidate with good preparation for the board examinant.

A detailed analysis of the number of candidates attempting each question in the three parts of both the papers, number who got the question right who left the question blank is provided in the following tables:

PAPER 1: PHYSICS						
SECTION I						
Correct answer		Correct answer 3 Marks		Wrong Answer (-1) arks		
Number of questions in this section: 10						
Number of attempts			Percentage of attempts			
Q.No.	Correct response	Wrong response	Blank	% of Correct Response	% of wrong Response	Blank pecentage
1	80227	223035	176389	16.73	46.50	36.77
2	77930	111637	290084	16.25	23.27	60.48
3	148953	193538	137160	31.05	40.35	28.60
4	52567	183531	243553	10.96	38.26	50.78
5	77740	136325	265586	16.21	28.42	55.37
6	220841	187819	70991	46.04	39.16	14.80
7	82717	230283	166651	17.25	48.01	34.74
8	103358	184143	192150	21.55	38.39	40.06
9	68505	123522	287624	14.28	25.75	59.97
10	77822	193386	208443	16.22	40.32	43.46
SECTION II						
Correct answer		Correct answer 3 Marks		Wrong Answer No negative marks		
Number of questions in this section: 6						
11	106542	336771	36338	22.21	70.21	7.58
12	62725	380494	36432	13.08	79.33	7.60
13	109485	349224	20942	22.83	72.81	4.37
14	46236	391823	41592	9.64	81.69	8.67
15	182339	264040	33272	38.01	55.05	6.94
SECTION III						
Correct answer		Correct answer 3 Marks		Wrong Answer No negative marks		
Number of questions in this section: 6						
16	35260	363979	80412	7.35	75.88	16.76
17	49192	355049	75410	10.26	74.02	15.72
18	60651	359958	59042	12.64	75.05	12.31
19	22502	377243	79906	4.69	78.65	16.66
20	54900	339482	85269	11.45	70.78	17.78
PAPER 2: PHYSICS						
Correct answer		Correct answer 3 Marks		Wrong Answer (-1) mark		
Number of questions in this section: 8						
	Correct response	Wrong response	Blank	% of Correct Response	% of wrong Response	Blank pecentage
Number of attempts			Percentage of attempts			
1	132048	157746	189857	27.53	32.89	39.58
2	74716	263092	141843	15.58	54.85	29.57
3	75927	195171	208553	15.83	40.69	43.48
4	167538	172988	139125	34.93	36.07	29.01
5	53952	179038	246661	11.25	37.33	51.43
6	102345	153592	223714	21.34	32.02	46.64
7	57054	136950	285647	11.89	28.55	59.55
8	140691	187575	151385	29.33	39.11	31.56
SECTION III						
Correct answer		Correct answer 3 Marks		Wrong Answer (-1) mark		
Number of questions in this section: 6						
9	188394	219750	71507	39.28	45.81	14.91
10	238246	152536	88869	49.67	31.80	18.53
11	91557	282372	105722	19.09	58.87	22.04
12	59668	260525	159458	12.44	54.32	33.24
13	47082	231977	200592	9.82	48.36	41.82
14	110845	174467	194339	23.11	36.37	40.52
SECTION III						
Correct answer		Correct answer 3 Marks		Wrong Answer No negative marks		
Number of questions in this section: 6						
15	61747	372302	45602	12.87	77.62	9.51
16	66519	396683	16449	13.87	82.70	3.43
17	47937	418504	13210	9.99	87.25	2.75
18	28067	427054	24530	5.85	89.03	5.11
19	115481	335569	28601	24.08	69.96	5.96
20	53722	366471	59458	11.20	76.40	12.40

PAPER 1: CHEMISTRY						
SECTION I						
Correct answer		Correct answer 3 Marks		Wrong Answer (-1) arks		
Number of questions in this section: 10						
Number of attempts				Percentage of attempts		
Q.No.	Correct response	Wrong response	Blank	% of Correct Response	% of wrong Response	Blank percentage
21	161367	248824	69460	33.64	51.88	14.48
22	120848	97144	261659	25.19	20.25	54.55
23	112836	201808	165007	23.52	42.07	34.40
24	196448	188237	94966	40.96	39.24	19.80
25	103312	207070	169269	21.54	43.17	35.29
26	88873	287968	102810	18.53	60.04	21.43
27	150790	206883	121978	31.44	43.13	25.43
28	74924	237221	167506	15.62	49.46	34.92
29	231720	182975	64956	48.31	38.15	13.54
30	145570	295687	38394	30.35	61.65	8.00
SECTION II						
Correct answer		Correct answer 3 Marks		Wrong Answer No negative marks		
Number of questions in this section: 6						
31	46796	378928	53927	9.76	79.00	11.24
32	46770	390944	41937	9.75	81.51	8.74
33	42581	412660	24410	8.88	86.03	5.09
34	99280	357336	23035	20.70	74.50	4.80
35	94866	353781	31004	19.78	73.76	6.46
SECTION III						
Correct answer		Correct answer 3 Marks		Wrong Answer No negative marks		
Number of questions in this section: 6						
36	80689	335585	63377	16.82	69.96	13.21
37	110818	332962	35871	23.10	69.42	7.48
38	54613	381003	44035	11.39	79.43	9.18
39	74513	324577	80561	15.53	67.67	16.80
40	101336	322310	56005	21.13	67.20	11.68
PAPER 2: CHEMISTRY						
Correct answer		Correct answer 3 Marks		Wrong Answer (-1) mark		
Number of questions in this section: 8						
	Correct response	Wrong response	Blank	% of Correct Response	% of wrong Response	Blank percentage
Number of attempts				Percentage of attempts		
21	170793	141994	166864	35.61	29.60	34.79
22	105181	234408	140062	21.93	48.87	29.20
23	0	0	0	0.00	0.00	0.00
24	154854	274468	50329	32.28	57.22	10.49
25	53453	136512	289686	11.14	28.46	60.40
26	84039	242692	152920	17.52	50.60	31.88
27	90595	198617	190439	18.89	41.41	39.70
28	77926	267362	134363	16.25	55.74	28.01
SECTION III						
Correct answer		Correct answer 3 Marks		Wrong Answer (-1) mark		
Number of questions in this section: 6						
29	107414	240246	131991	22.39	50.09	27.52
30	66804	146173	266674	13.93	30.47	55.60
31	71605	154927	253119	14.93	32.30	52.77
32	143974	165182	170495	30.02	34.44	35.55
33	85266	204591	189794	17.78	42.65	39.57
34	89177	186721	203753	18.59	38.93	42.48
SECTION III						
Correct answer		Correct answer 3 Marks		Wrong Answer No negative marks		
Number of questions in this section: 6						
35	101581	364234	13836	21.18	75.94	2.88
36	111410	341991	26250	23.23	71.30	5.47
37	34212	415369	30070	7.13	86.60	6.27
38	61039	413193	5419	12.73	86.14	1.13
39	31917	410164	37570	6.65	85.51	7.83
40	48769	417086	13796	10.17	86.96	2.88

PAPER 1: MATHEMATICS						
SECTION I						
Correct answer		Correct answer 3 Marks		Wrong Answer (-1) arks		
Number of questions in in this section: 10						
Number of attempts				Percentage of attempts		
Q.No.	Correct response	Wrong response	Blank	% of Correct Response	% of wrong Response	Blank pecentage
41	84720	203591	191340	17.66	42.45	39.89
42	84948	251092	143611	17.71	52.35	29.94
43	71333	261580	146738	14.87	54.54	30.59
44	192929	137346	149376	40.22	28.63	31.14
45	67593	219264	192794	14.09	45.71	40.19
46	69710	172660	237281	14.53	36.00	49.47
47	87468	210324	181859	18.24	43.85	37.91
48	81725	152557	245369	17.04	31.81	51.16
49	50855	141640	287156	10.60	29.53	59.87
50	68627	123080	287944	14.31	25.66	60.03
SECTION II						
Correct answer		Correct answer 3 Marks		Wrong Answer No negative marks		
Number of questions in this section: 6						
51	11546	389303	78802	2.41	81.16	16.43
52	14467	398550	66634	3.02	83.09	13.89
53	41255	366548	71848	8.60	76.42	14.98
54	143301	295919	40431	29.88	61.69	8.43
55	95084	319249	65318	19.82	66.56	13.62
SECTION III						
Correct answer		Correct answer 3 Marks		Wrong Answer No negative marks		
Number of questions in this section: 6						
56	29728	398674	51249	6.20	83.12	10.68
57	45353	369908	64390	9.46	77.12	13.42
58	23940	394718	60993	4.99	82.29	12.72
59	83930	330702	65019	17.50	68.95	13.56
60	104903	298661	76087	21.87	62.27	15.86
PAPER 2: MATHEMATICS						
Correct answer		Correct answer 3 Marks		Wrong Answer (-1) mark		
Number of questions in this section: 8						
	Correct response	Wrong response	Blank	% of Correct Response	% of wrong Response	Blank pecentage
Number of attempts				Percentage of attempts		
41	85980	171840	221831	17.93	35.83	46.25
42	96501	126659	256491	20.12	26.41	53.47
43	96541	176892	206218	20.13	36.88	42.99
44	82103	212740	184808	17.12	44.35	38.53
45	78377	92004	309270	16.34	19.18	64.48
46	49108	222311	208232	10.24	46.35	43.41
47	98822	216683	164146	20.60	45.18	34.22
48	99602	162252	217797	20.77	33.83	45.41
SECTION III						
Correct answer		Correct answer 3 Marks		Wrong Answer (-1) mark		
Number of questions in this section: 6						
49	58275	247171	174205	12.15	51.53	36.32
50	61462	171452	246737	12.81	35.75	51.44
51	48745	212030	218876	10.16	44.21	45.63
52	56398	199213	224040	11.76	41.53	46.71
53	134209	188888	156554	27.98	39.38	32.64
54	87236	243074	149341	18.19	50.68	31.14
SECTION III						
Correct answer		Correct answer 3 Marks		Wrong Answer No negative marks		
Number of questions in this section: 6						
55	46238	385994	47419	9.64	80.47	9.89
56	80223	368811	30617	16.73	76.89	6.38
57	90764	351139	37748	18.92	73.21	7.87
58	142926	321028	15697	29.80	66.93	3.27
59	132930	323455	23266	27.71	67.44	4.85
60	0	0	0	0.00	0.00	0.00

Section B: Parameters influencing the candidates' performance in IIT-JEE

The performance is gauged by considering the ratio of the candidates who obtained rank in IIT-JEE and the corresponding number of candidates who attempted the IIT-JEE 2012. It is observed that the following parameter do influence the chances of a person clearing the IIT-JEE or not.

- (a) Preparation methods the candidates adopts
- (b) Place of schooling viz. Village, town or city
- (c) Board from where the candidate passed the qualifying his/her Examination
- (d) Year of passing Qualifying Examination
- (e) Candidates Mother Tongue

a. **Preparation by the candidates for attempting IIT-JEE:**

On average, only one in five registered students took extra help (*most probably some sort of coaching*) but they make up about half of the successful candidates. More than two fold increase in their success rate over other students (*who only did self study*) is a clear indication of the effect of extra help (probably professional coaching). Further analysis also supports this assertion. While self-study students can hold their own in zones like Bombay and Madras and to a slightly lesser extent in Delhi, they could not perform well in Guwahati, Kanpur, Roorkee and Kharagpur zones. It is worth noticing that students in Guwahati zone had performed much better if they had some extra help. It also hints at availability of better conditions of self-study in Bombay, Madras and Delhi zones. The data based on which the above conclusion is drawn is given **Table A6**

b. **Place of schooling and category:**

About 45% of the registered candidates came from Bombay and Madras Zones as opposed to 5% of the from Guwahati. Increased opportunity for students in the Bombay and Madras zones as compared to Guwahati zone is probably the main reason for this difference. The share of OBC candidates increased in registrations from towns and villages. In fact, more OBC candidates than general candidates registered from villages. Of all the candidates who were offered admission, 61%, 27% and 12% candidates were from the cities, towns and villages, respectively. A slightly different distribution is seen in the registered candidates as corresponding numbers change to roughly 51%, 30% and 19%. Overall city candidates did better as against 51% registration they could get 61% of the total admission offers. SC and ST candidates did relatively better in the cities as they got 8% and 4% of admission offers compared to about 5% and 1.5% of registrations. It can be seen as sign of more effective use of the reservation policy in cities. General candidates, on the other hand performed better in the cities. The supporting data are given **Table A7**

c. **Board from where the candidate passed the qualifying Examination:**

CBSE board students performed better than the state board students as they constituted 38% of the qualified candidates which is higher than the 30% registered in GE category. State board students made up about 40% of the qualified candidates against 51% of registrations. More than 90% of the registered candidates came from state boards and CBSE with ICSE contributing another 4%. Interestingly, 1% (about 5000 in number) students studied outside these three.

General candidates seem to prefer CBSE as they constitute about two-third of all registrations and three-fourth of qualified candidates from CBSE. Their share in registration and qualification from other boards drop to less than 50% and 60%, respectively. OBC on the other hand, seem to prefer the state boards as they make up more than one-third of registered as well as qualified candidates from the state boards. The respective numbers for them in CBSE drop to about one-fifth. SC and ST do not show any major change in shares in both the Boards.

d. **The Role of gender**

It is absolutely clear that boys have performed better than girls. While only about twice as many boys registered than girls, eight times more boys qualified, nine times more boys were counseled and got admission offer. The same trend is seen across various categories with minor variations. Ratios for OBC are even worse and those of SC and ST show marginal improvement. To add to this, girls have got lesser ranks also. This can be seen by worsening ratios as we move from data for qualified to data for

counseled and final admission. The increase of girls share in registration as compared to earlier years may be attributed to Registration fee exemption for girls and general increase in girl's participation. It is felt that the fact that 33% of registered candidates are girls, which is a remarkable increase, compared to the previous year numbers. Exemption of fee has definitely has a positive impact on the mindset of the girl. Numbers of girls getting qualified in IIT-JEE is likely to go up in future as more and girls write the examination.

e. Educational qualifications of parents

It is clear that the level of parent's education has a marked effect on the candidate's performance (see **Table A11**). Candidates with both parents graduate (BG) have performed much better (almost twenty percentage points higher) than those with only one parent graduate (OG) who, in turn (by ten percentage points), have performed better than candidates with none of the parents graduate (NG).

f. Language of question paper used for writing IIT-JEE

English remains the overwhelmingly favored language of question paper. More than 85% of registered candidates chose English (see **Table A12**). These candidates have performed better than those who chose Hindi with 94.4% of the qualified opting for English. No candidate from Madras who opted for Hindi qualified. The same was true in Guwahati. Bombay qualified more than two times the next closest contender, Delhi, amongst those opting for Hindi as the QP language. Candidates opting for Hindi have not performed well in the Kanpur Zone where a share of 4.5% in registration declines to 0.45% in counseled students. They have performed well in Bombay zone where they are counseled in about the same ratio as they have registered.

g. Place of residence viz. village, town or city

The Registered as well as qualified candidates were concentrated in a few big cities. More than half the candidates qualified from just eleven cities. In fact, more than 90% qualified from just about 75 cities. Similar number of students appeared from Patna, Delhi and Jaipur with Patna slightly ahead of the other two. More than 2500 candidates qualified from Jaipur. Hyderabad and Delhi take the second and third spot, respectively. With slightly more than 1000 qualified candidates, Vijaywada comes a distant fourth in this list but has the best success rate as only 10000 candidates registered from there. Supporting data is in **Table A13**.

h. Occupation of parents

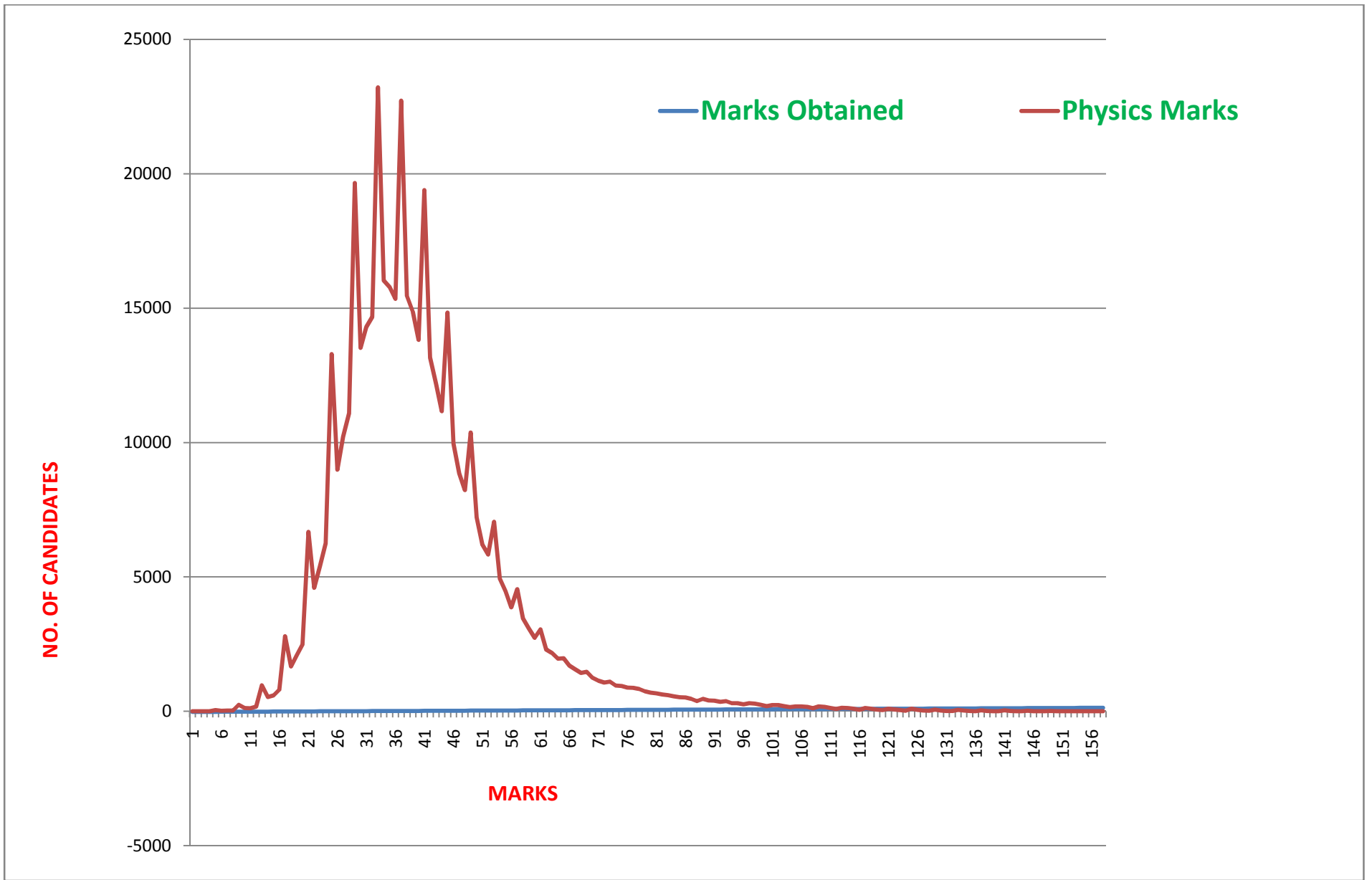
Parents' Occupation has a slight but definite effect on candidate's performance. Candidates whose parents are in medical and engineering professions have performed slightly better than other candidates. Candidates whose parents are in agriculture or in defense services have not been able to perform as well as others. Supporting data is in **Table A14**.

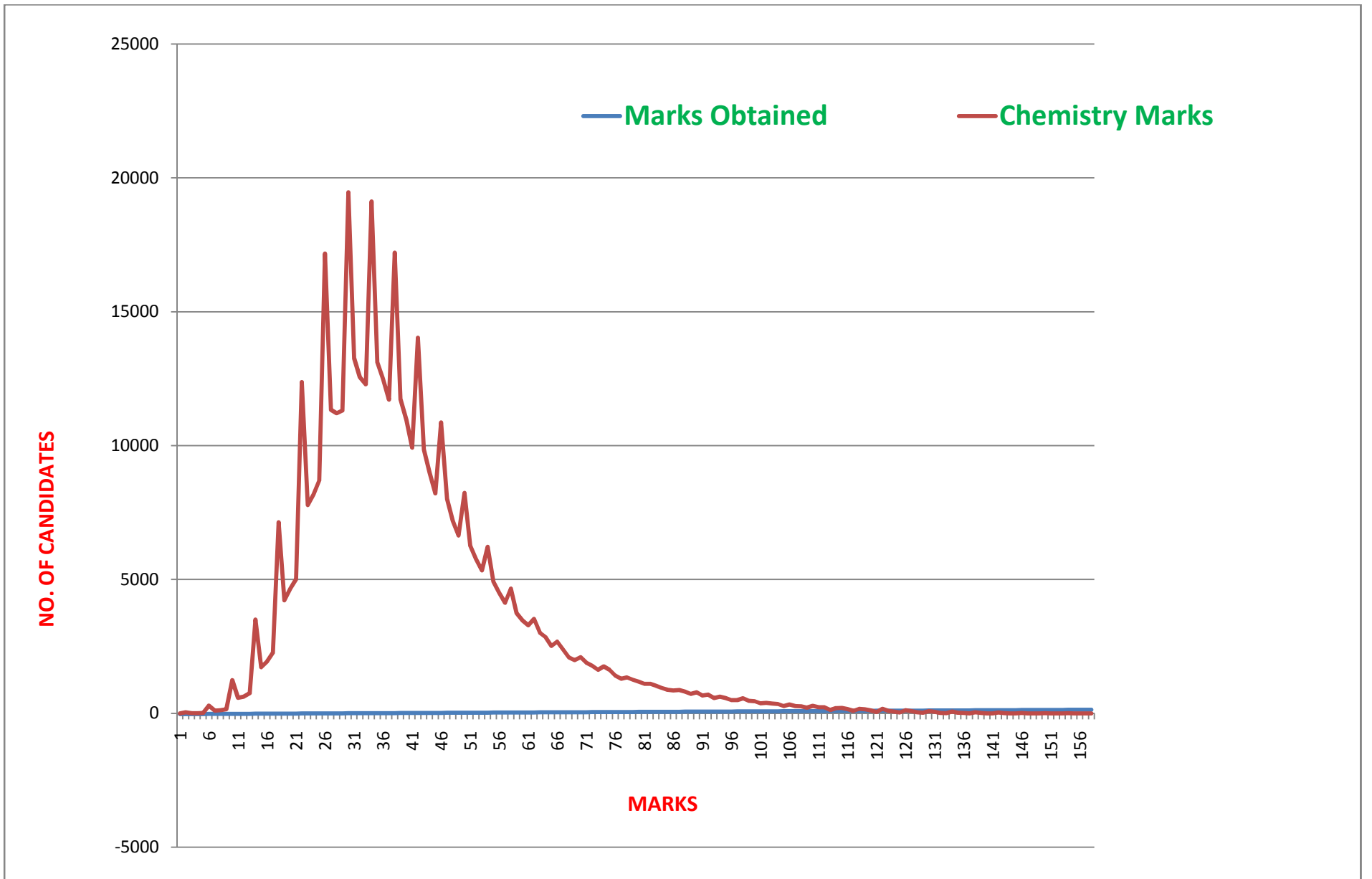
i. Candidates Mother Tongue

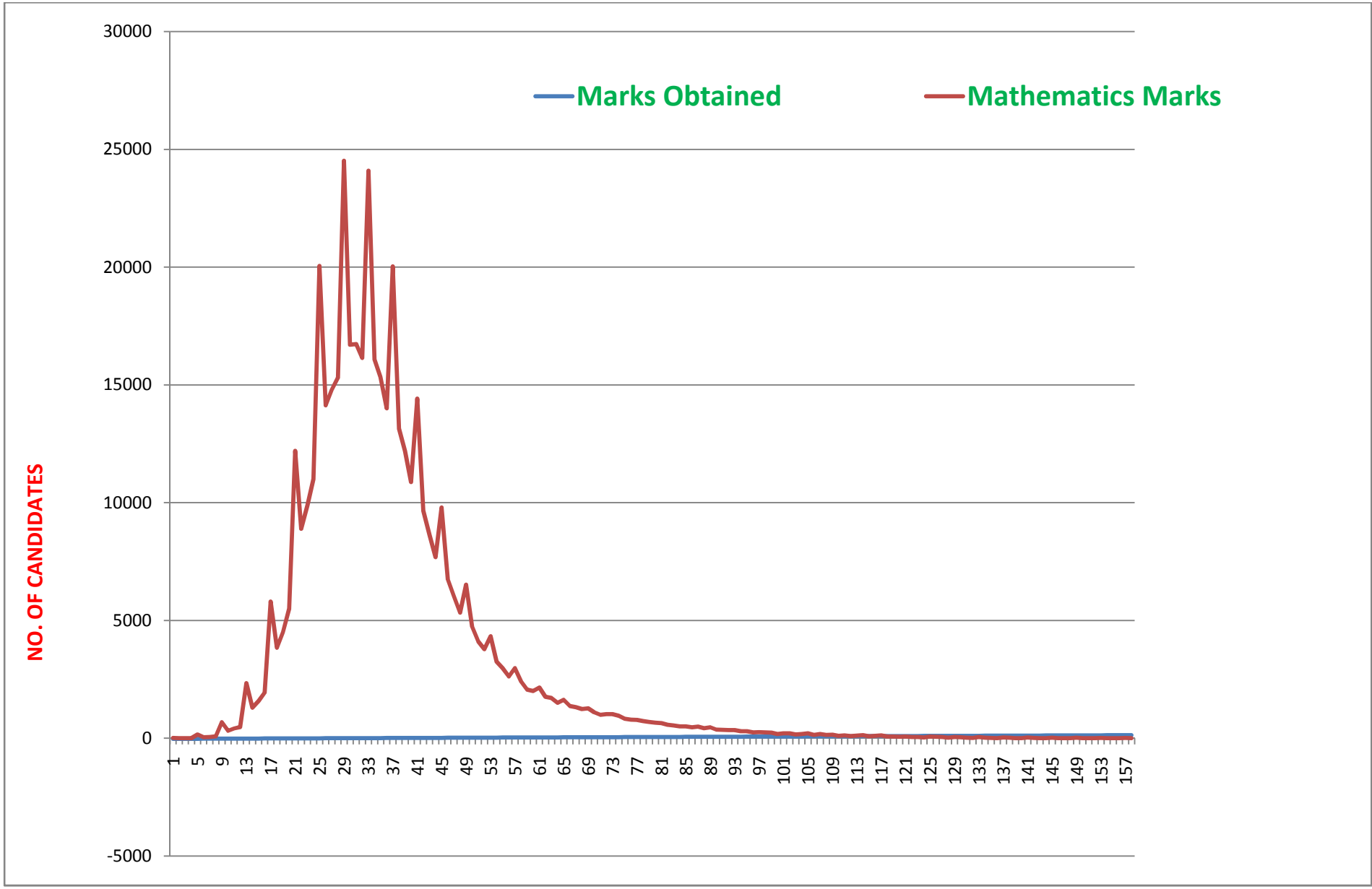
Hindi has the highest representation for registered, qualified and counseled. The next closest is Telugu which is smaller by more than a factor of 4. The number of candidates registered in Marathi is not very high but the numbers qualified is disproportionately high.

j. Parents Income

The proportion of OBC(NCL) candidates whose parental income is below 1 lakh relative to those with income between 1 and 4.5 lakhs is disproportionately high compare to all the other categories. Supporting data is in **Table A17**.







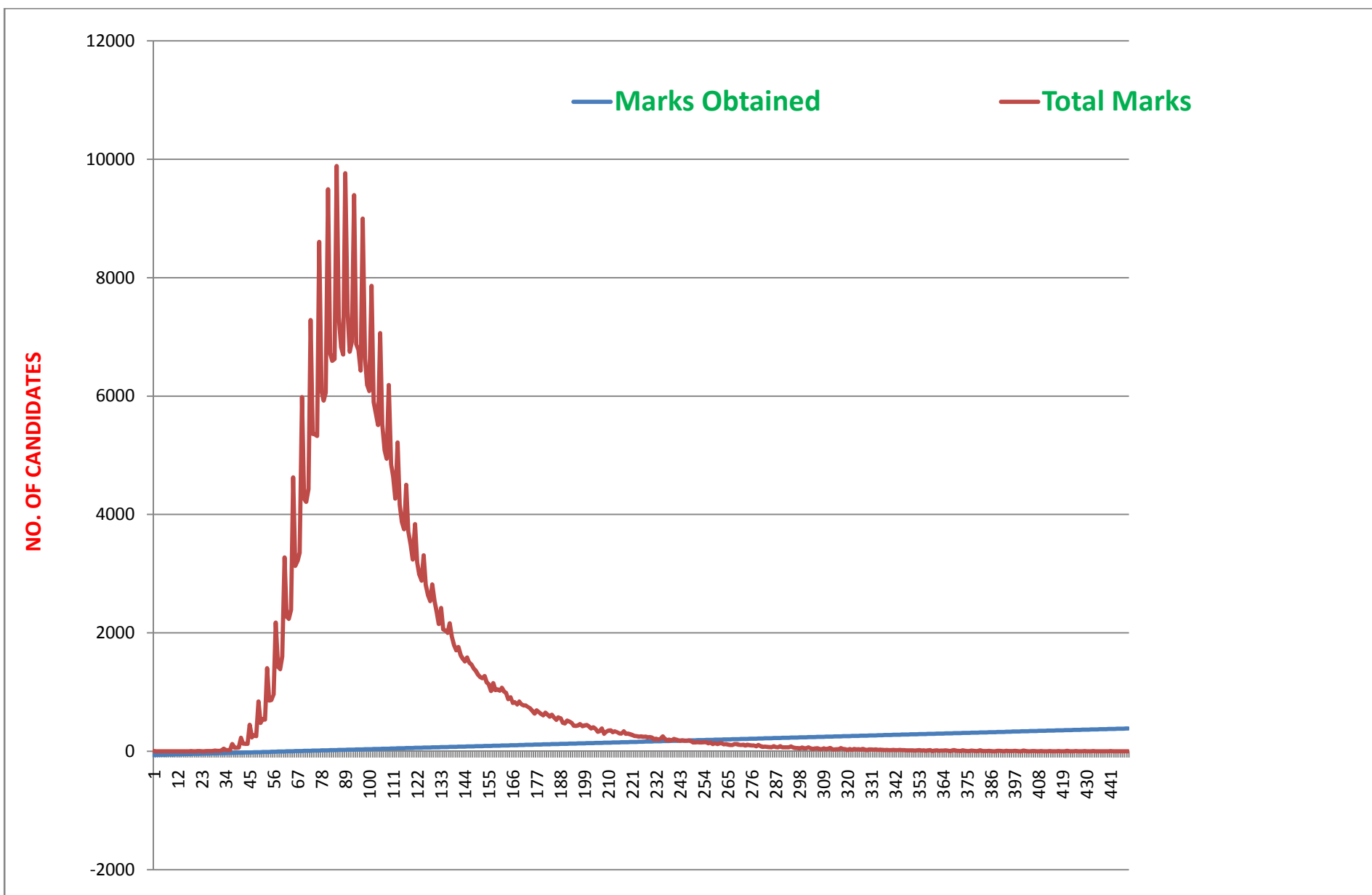


Table A12 : Zone wise distribution of Registered , qualified and Counselling candidates according to language of question paper

Zone	Registered				Qualified				Counselling			
	QP in English	QP in Hindi	In Percentage out of total appeared 47651		QP in English	QP in Hindi	In Percentage out of total qualified 24112		QP in English	QP in Hindi	In Percentage out of total qualified 17465	
IIT Bombay	50125	23239	10.45	4.84	4728	834	19.61	3.46	3479	761	19.92	4.36
IIT Delhi	59151	11520	12.33	2.40	3745	363	15.53	1.51	2577	329	14.76	1.88
IIT Guwahati	56903	2475	11.86	0.52	1280	0	5.31	0.00	971	0	5.56	0.00
IIT Kanpur	57181	21811	11.92	4.55	2826	112	11.72	0.46	2007	95	11.49	0.54
IIT Kharagpur	58121	3711	12.12	0.77	2609	7	10.82	0.03	1856	7	10.63	0.04
IIT Madras	71973	8	15.01	0.00	5004	0	20.75	0.00	3666	0	20.99	0.00
IIT Roorkee	56339	7094	11.75	1.48	2570	34	10.66	0.14	1686	31	9.65	0.18
Total	409793	69858	85.44	14.56	22762	1350	94.40	5.60	16242	1223	93.00	7.00

Table A11 Zone wise distribution of Registered , qualified and Counselled candidates according to Parents educational qualifications

	Appeared						Qualified						Counselled					
	Numbers			In Percentage out of total appeared 47651			Numbers			In Percentage out of total qualified 24112			Numbers			In Percentage out of total qualified 17465		
	BG	OG	NG	BG	OG	NG	BG	OG	NG	BG	OG	NG	BG	OG	NG	BG	OG	NG
IIT Bombay	25128	25178	23058	5.24	5.25	4.81	2749	1766	1047	10.95	7.03	4.17	1883	1453	904	10.78	8.32	5.18
IIT Delhi	27906	22931	19834	5.82	4.78	4.14	2213	1209	686	8.81	4.81	2.73	1374	950	582	7.87	5.44	3.33
IIT Guwahati	13961	22453	22964	2.91	4.68	4.79	434	495	351	1.73	1.97	1.40	284	392	295	1.63	2.24	1.69
IIT Kanpur	29001	29213	20778	6.05	6.09	4.33	1553	923	462	6.18	3.68	1.84	1000	720	382	5.73	4.12	2.19
IIT Kharagpur	22391	21689	17752	4.67	4.52	3.70	1287	819	510	5.13	3.26	2.03	829	607	427	4.75	3.48	2.44
IIT Madras	26448	22295	23238	5.51	4.65	4.84	2530	1421	1053	10.07	5.66	4.19	1721	1093	852	9.85	6.26	4.88
IIT Roorkee	24256	19557	19620	5.06	4.08	4.09	1486	651	467	5.92	2.59	1.86	888	466	363	5.08	2.67	2.08
Total	169091	163316	147244	35.25	34.05	30.70	12252	7284	4576	48.79	29.01	18.22	7979	5681	3805	45.69	32.53	21.79

Table A6 Zone wise distribution of Registered , qualified and Counselled candidates according to the preparation method

	Appeared				Qualified				Counselled			
	Numbers		In Percentage out of total appeared 47651		Numbers		In Percentage out of total qualified 24112		Numbers		In Percentage out of total qualified 17465	
Zone	Self Study (SS)	Others (OM)	SS	OM	SS	OM	SS	OM	SS	OM	SS	OM
IIT Bombay	56655	16709	11.81	3.48	2913	2649	12.08	10.99	2253	1987	12.90	11.38
IIT Delhi	54495	16176	11.36	3.37	2031	2077	8.42	8.61	1427	1479	8.17	8.47
IIT Guwahati	49056	10322	10.23	2.15	731	549	3.03	2.28	551	420	3.15	2.40
IIT Kanpur	64737	14255	13.50	2.97	1534	1404	6.36	5.82	1101	1001	6.30	5.73
IIT Kharagpur	51442	10390	10.72	2.17	1624	992	6.74	4.11	1147	716	6.57	4.10
IIT Madras	51524	20457	10.74	4.26	2516	2488	10.43	10.32	1852	1814	10.60	10.39
IIT Roorkee	52870	10563	11.02	2.20	1518	1086	6.30	4.50	969	748	5.55	4.28
Total	380779	98872	79.39	20.61	12867	11245	53.36	46.64	9300	8165	53.25	46.75

Table A1 Candidates appeared in both papers

	Numbers					In percentage			
	GE	OBC	SC	ST	Total	GE	OBC	SC	ST
IIT Bombay	39931	19944	7613	5876	73364	14.37	14.60	16.33	31.69
IIT Delhi	45356	16388	6691	2236	70671	16.32	12.00	14.36	12.06
IIT Guwahati	27007	25892	4497	1982	59378	9.72	18.96	9.65	10.69
IIT Kanpur	44799	24071	9203	919	78992	16.12	17.63	19.74	4.96
IIT Kharagpur	37404	14766	5471	4191	61832	13.46	10.81	11.74	22.61
IIT Madras	39654	23353	6417	2557	71981	14.27	17.10	13.77	13.79
IIT Roorkee	43780	12156	6718	779	63433	15.75	8.90	14.41	4.20
Total	277931	136570	46610	18540	479651				

Table A2 Candidates Qualified : Zone Wise

	Numbers						In Percentage				
	GE	OBC	SC	ST	PD	Total	GE	OBC	SC	ST	PD
IIT Bombay	3249	1055	770	465	23	5562	22.28	22.01	22.26	41.82	13.77
IIT Delhi	2683	718	517	161	29	4108	18.40	14.98	14.95	14.48	17.37
IIT Guwahati	528	500	198	36	18	1280	3.62	10.43	5.72	3.24	10.78
IIT Kanpur	1789	567	522	43	17	2938	12.27	11.83	15.09	3.87	10.18
IIT Kharagpur	1541	490	429	132	24	2616	10.57	10.22	12.40	11.87	14.37
IIT Madras	2996	1129	614	231	34	5004	20.55	23.56	17.75	20.77	20.36
IIT Roorkee	1795	334	409	44	22	2604	12.31	6.97	11.82	3.96	13.17
Total	14581	4793	3459	1112	167						

Table A14 Parents Occupation : Qualified : Male : Female

Occupation	Male				Female			
	Registered	Qualified	%	%	Registered	Qualified	%	%
Agriculture	63688	2131	3.35	0.63	20024	126	0.63	0.63
Business	62274	3971	6.38	1.34	37484	501	1.34	1.34
Medical	4732	567	11.98	5.74	2335	134	5.74	5.74
Engineering	7933	868	10.94	3.88	4739	184	3.88	3.88
Law Practice	3706	223	6.02	1.39	1948	27	1.39	1.39
Teaching/Research	22416	1524	6.80	1.72	10233	176	1.72	1.72
Public/Govt. Service	106821	8100	7.58	2.31	54576	1261	2.31	2.31
Private Service	34878	2107	6.04	1.55	20131	312	1.55	1.55
Defence Services	10716	513	4.79	0.71	5456	39	0.71	0.71
Others	20752	1222	5.89	1.08	11642	126	1.08	1.08
Total	337916	21226	6.28	1.71	168568	2886	1.71	0.06

Table A10 Qualified Candidates: Category & Male Female Distribution

Registered candidates : Male Female Distribution						
	Numbers			In Percentage out of total registered 506484		
Category	Male	Female	Total	Female	Male	Total
GE	188178	106155	294333	20.96	37.15	58.11
OBC	99938	43346	143284	8.56	19.73	28.29
SC	35515	13572	49087	2.68	7.01	9.69
ST	14285	5495	19780	1.08	2.82	3.91
	337916	168568	506484			
Qualified candidates : Male Female Distribution						
	Numbers			In Percentage out of total qualified 24112		
Category	Male	Female	Total	Female	Male	Total
GE	12831	1851	14682	7.68	53.21	60.89
OBC	4415	438	4853	1.82	18.31	20.13
SC	3010	455	3465	1.89	12.48	14.37
ST	970	142	1112	0.59	4.02	4.61
	21226	2886	24112	11.97	88.03	100
Counselled Candidates : Category & Male Female Distribution						
	Numbers			In Percentage out of total counselled 17465		
Counselled candidates : Male Female Distribution						
Category	Male	Female	Total	Female	Male	Total
GE	7161	874	8035	5.00	41.00	46.01
OBC	4415	438	4853	2.51	25.28	27.79
SC	3010	455	3465	2.61	17.23	19.84
ST	970	142	1112	0.81	5.55	6.37
	15556	1909	17465			
	Numbers			In Percentage out of total Admitted 9576		
Admitted candidates : Male Female Distribution						
Category	Male	Female	Total	Female	Male	Total
GE	4315	449	4764	4.69	45.06	49.75
OBC	2416	229	2645	2.39	25.23	27.62
SC	1279	163	1442	1.70	13.36	15.06
ST	629	96	725	1.00	6.57	7.57
	8639	937	9576			

Table A8 Board of qualifying examination : Registered candidates

Board	Numbers					In Percentage out of total Admitted 506484				
	GE	OBC	SC	ST	Total	GE	OBC	SC	ST	Total
CBSE	154380	46220	17839	5689	224128	30.48	9.13	3.52	1.12	44.25
STATE	121987	92778	29581	13468	257814	24.09	18.32	5.84	2.66	50.90
ICSE	15250	2789	1176	491	19706	3.01	0.55	0.23	0.10	3.89
OTHERS	2716	1497	491	132	4836	0.54	0.30	0.10	0.03	0.95
Total	294333	143284	49087	19780	506484	58.11	28.29	9.69	3.91	100.00

Table A9 Examination Board : Candidates offered admission

Board	Numbers					In Percentage out of total qualified 24112				
	Qualified									
	GE	OBC	SC	ST	Total	GE	OBC	SC	ST	
CBSE	9214	2367	1752	429	13762	38.21	9.82	7.27	1.78	
STATE	4711	2360	1587	663	9321	19.54	9.79	6.58	2.75	
ICSE	700	105	114	15	934	2.9	0.44	0.47	0.06	
OTHERS	57	21	12	5	95	0.24	0.09	0.05	0.02	
Total	14682	4853	3465	1112	24112	60.89	20.13	14.37	4.61	
Registered										
	GE	OBC	SC	ST	Total	GE	OBC	SC	ST	
CBSE	154380	46220	17839	5689	224128	30.48	9.13	3.52	1.12	
STATE	121987	92778	29581	13468	257814	24.09	18.32	5.84	2.66	
ICSE	15250	2789	1176	491	19706	3.01	0.55	0.23	0.1	
OTHERS	2716	1497	491	132	4836	0.54	0.3	0.1	0.03	
Total	294333	143284	49087	19780	506484	58.11	28.29	9.69	3.91	

Table A7 Counsellor Candidates' category and living place

	Village	Town	City	Village	Town	City	Total
GE	39633	80990	173710	7.83	15.99	34.30	58.11
OBC	41655	47913	53716	8.22	9.46	10.61	28.29
SC	11544	13772	23771	2.28	2.72	4.69	9.69
ST	5518	6884	7378	1.09	1.36	1.46	3.91
Total	98350	149559	258575	19.42	29.53	51.05	100.00
	Numbers			In Percentage out of total appeared 47651			
	Village	Town	City	Village	Town	City	Total
GE	499	1819	5717	12.73	27.43	59.84	100.00
OBC	927	1678	2248	2.86	10.42	32.73	46.01
SC	587	949	1929	5.31	9.61	12.87	27.79
ST	210	345	557	3.36	5.43	11.04	19.84
	2223	4791	10451	1.20	1.98	3.19	6.37
	Admitted Candidates' category and living place						
	Numbers			In Percentage out of total appeared 47651			
	Village	Town	City	Village	Town	City	Total
GE	294	1095	3375	11.94	27.44	60.62	100.00
OBC	479	925	1241	3.07	11.43	35.24	49.75
SC	248	387	807	5.00	9.66	12.96	27.62
ST	122	221	382	2.59	4.04	8.43	15.06
Total	1143	2628	5805	1.27	2.31	3.99	7.57

Table A13 Living Place & Zone

	Numbers				In percentage out of total registered 506484			
	Village	Town	City	Total	Village	Town	City	Total
IIT Bombay	13264	17779	46279	77322	2.62	3.51	9.14	15.27
IIT Delhi	9862	14327	50310	74499	1.95	2.83	9.93	14.71
IIT Guwahati	20565	27590	14005	62160	4.06	5.45	2.77	12.27
IIT Kanpur	14633	18001	50045	82679	2.89	3.55	9.88	16.32
IIT Kharagpur	10438	27183	27741	65362	2.06	5.37	5.48	12.91
IIT Madras	17188	29235	31547	77970	3.39	5.77	6.23	15.39
IIT Roorkee	12400	15444	38648	66492	2.45	3.05	7.63	13.13
Total	98350	149559	258575	506484	19.42	29.53	51.05	100.00
	Numbers				In percentage out of total qualified of 24112			
	Village	Town	City	Total	Village	Town	City	Total
IIT Bombay	556	1188	3818	5562	2.31	4.93	15.83	23.07
IIT Delhi	376	853	2879	4108	1.56	3.54	11.94	17.04
IIT Guwahati	234	584	462	1280	0.97	2.42	1.92	5.31
IIT Kanpur	232	535	2171	2938	0.96	2.22	9.00	12.18
IIT Kharagpur	216	979	1421	2616	0.90	4.06	5.89	10.85
IIT Madras	812	1667	2525	5004	3.37	6.91	10.47	20.75
IIT Roorkee	242	546	1816	2604	1.00	2.26	7.53	10.80
Total	2668	6352	15092	24112	11.07	26.34	62.59	100.00

Table A15 Number of attempts

Registered			
Qualified	in 2012	in 2011	≤2010
Total	416289	89970	225
GE	246198	48048	87
OBC	114756	28448	80
SC	39446	9596	45
ST	15889	3878	13
Qualified			
Qualified	in 2012	in 2011	≤2010
Total	14071	10040	1
GE	9101	5581	0
OBC	2393	2459	1
SC	1983	1482	0
ST	594	518	0
Admission Offered			
	in 2012	in 2011	≤2010
Total	5438	4138	0
GE	2970	1794	0
OBC	1297	1348	0
SC	799	643	0
ST	372	353	0

Table A17 Parents Income

	Registered				
	GE	OBC	SC	ST	Total
Below 1 Lakh	79485	77873	19087	8860	185305
Between 1 lakh and 4.5 lakh	154726	61513	24354	9272	249865
Above 4.5 Lakh	60122	3898	5646	1648	71314
Total	294333	143284	49087	19780	506484
	Qualified				
	GE	OBC	SC	ST	Total
Below 1 Lakh	1816	1757	839	365	4777
Between 1 lakh and 4.5 lakh	6882	2755	1792	563	11992
Above 4.5 Lakh	5984	341	834	184	7343
Total	14682	4853	3465	1112	24112