


F. No. 42-2/2012-TS.I
Government of India
Ministry of Human Resource Development
Department of Higher Education
Technical Section – I

Shastri Bhawan, New Delhi,
Dated 23rd May, 2012

Subject : Minutes of the 44th Meeting of the Council of IITs.

The Minutes of the 44th meeting of the Council of the IITs, under the chairmanship of Hon'ble HRM, held on 12th May, 2012 at the Senate Room of IIT Delhi, Hauz Khas, New Delhi, are forwarded herewith for information and necessary action.

Encl. : as above


(Yatendra Kumar)
Under Secretary to the Govt. of India
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To

All the members of Council of IITs

Copy to :

1. PS to HRM
2. PS to MoS
3. PSO to Secretary (HE)
4. PSO to SS (TE)
5. Sr.PPS to JS&FA
6. PS to JS (IITs)

Minutes of the 44th Meeting of the Council of IITs held under the Chairmanship of Shri Kapil Sibal, Hon'ble Minister for Human Resource Development at 11.00 A.M. on Saturday, 12th May, 2012 at IIT-Delhi

The Chairman, IIT Council welcomed all the members of the Council (a list of participants is enclosed (**Annexure-I**)).

2. At the outset, Secretary of the Council, Shri Ashok Thakur, Spl. Secretary briefed the Council of the follow up action taken by the Ministry in pursuance of the decision taken by the Council in its meeting held on 14th September, 2011 regarding implementation of the recommendations of the Ramasami Committee for holding a common national examination with weightage to State Board results normalized on the basis of percentile formula for admission to engineering institutions in the country. He informed the Council that the proposal was accorded 'in-principle' approval by the State Ministers in the Conference held on 22nd February, 2012. He also mentioned that apart from interaction with the faculties of some of the IITs by a Core Committee of senior academics, the proposal was also discussed by the Chairman, IIT Council with the Chairmen, Board of Governors and Directors of IITs, and separately with the All India IIT Faculty Federation, on 11th April, 2012. Following these discussions, the proposed reforms were discussed further by the Senates of seven older IITs between 25th April- 5th May, 2012 and the observations/ resolutions received have been circulated along with the agenda note. The Council also took note of the representation submitted to HRM by the All India IIT Faculty Federation vide its letter dated 9th May, 2012 (copy enclosed at **Annexure-II**).

3. The Council took note of the following views expressed by the various Senates:-

- (i) The recommendations of the IIT Senates differ widely with IIT Guwahati expressing complete support for the proposal approved by the IIT Council and IIT Bombay proposing to retain the present system with minor modifications at the other extreme. The recommendations of the other IITs span the range of qualified support to the proposal (IIT Madras, Kharagpur, Roorkee and Delhi) to substantial modification sought to the proposal (IIT Kanpur).

- (ii) By and large, the middle ground of opinions expressed by IIT Senates recommend that the Class XII Board results along with the National Test (Mains) be considered as screening or gating with the National Test (Advanced level) being solely used for ranking purposes for admission to undergraduate programmes. Some Senates have also proposed that a limited number of candidates (say 50,000) from the screening be eligible to appear in the Advanced test to be conducted by the IITs.
- (iii) The details of the Advanced test will be finalized in due course of time by discussion amongst the IITs so that it can be implemented from the year 2014.

4. The Council considered the recommendations of the IIT Senates and deliberated in considerable detail various alternatives in a free and frank manner. A strong body of opinion amongst the members of the Council was that the importance of the schooling system has to be recovered in the larger interest of the nation by giving due weightage to the performance of the students in Class XII Board examinations and at the same time maintaining the credibility and integrity of the intake process in IITs. After detailed deliberations following consensus emerged:-

- a) A Joint Entrance Examination for admission to the undergraduate programmes in engineering would be conducted in two parts, JEE-MAIN and JEE-ADVANCED to be held on the same day.
- b) The School Board marks normalized on percentile basis plus the marks obtained in the JEE-MAIN examination, with equal weightage, would be used by IITs for purposes of gating/screening. Only a fixed number of candidates (five times the number of the seats for admission in the IIT system) screened on the basis of merit assessed on the basis of cumulative score of normalized School Board marks and performance in JEE-MAIN examination would be eligible to be considered for admission.
- c) The ranking for admission to undergraduate programmes in IITs would be based entirely on the performance in the JEE-ADVANCED examination from amongst the candidates screened through the process outlined in (b).

- d) Admission to other Centrally Funded Technical Institutions (CFTIs) would continue to be governed by the proposed policy of ranking based on 40% weightage to normalized Class XII Board marks, 30% weightage to performance in JEE-MAINS and 30% weightage for performance in JEE-ADVANCED.
- e) States would have the autonomy to determine to own relative weightages to normalized Class XII Board marks, performance in JEE-MAINS and JEE-ADVANCED.
- f) Both JEE-MAIN and JEE-ADVANCED tests shall be objective and multiple choice type as the suggestion to have a subjective test for JEE-ADVANCED was not considered practical due to problems in conduct of test and evaluation of a large number of papers.
- g) The proposed changes will be effective from the year 2013 and both IITs and CBSE would work jointly. It was agreed that the Joint Admission Board (JAB) of the IIT system would have complete control over the academic components of the National Test such as paper setting, evaluation and preparation of the merit list, etc.; the CBSE will provide the administrative and logistic support for the conduct of examination across the country. An appropriate mechanism shall be put in place within a fortnight.
- h) The objective would be to switchover to a system by 2015 in which the normalized Class XII Board Marks and performance in JEE-MAINS would also be counted towards the finalization of the final merit list as agreed to in principle by IIT Council in its Meeting dated 14th September, 2011. This would be done after the credibility and the integrity of the process to be put in place in 2013 is established through the conduct of the admission process in the mode decided upon.
- i) Process of establishing co-ordination between COBSE & JAB-IITs for implementation of the core curriculum in sciences and maths across the CBSE, ICSE and State Boards shall be put in place immediately.
- j) The Rules for the conduct of the JEE shall be finalized in a fortnight.

- k) It was further decided that the outcome of these deliberations will be discussed in a separate meeting with the faculty representatives, two each from the seven older IITs, as committed earlier in the meeting held on 11th April, 2012 before a final decision in this regard is taken by the joint meeting of the Councils of IITs and NITs scheduled to be held on 28th May, 2012.

The meeting ended with a vote of thanks to the Chair.

Annexure-I**List of Participants**

44th meeting of the Council of IITs under the chairmanship of Hon'ble HRM held at 11:00 A.M. on 12.05.2012 at Indian Institute of Technology Delhi.

| S.No. | Name & Address | S.No. | Name & Address |
|-------|---|-------|--|
| 1. | Shri Kapil Sibal Hon'ble Minister of HRD | 18. | Dr. S.S. Mantha, Chairman, AICTE |
| 2. | Dr. D. Purandeswari, Hon'ble MoS For HRD | 19. | Prof. Sabyasachi Bhattacharya, Ex-Director, TIFR |
| 3. | Shri Janardhana Swamy, Hon'ble Member of Parliament (Lok Sabha), | 20. | Shri Vineet Joshi, Chairman, CBSE |
| 4. | Dr. Anil Kakodkar, Chairman, BoG, IIT Bombay | 21. | Dr. B.K. Gairola, Director General, NIC, |
| 5. | Shri R.P. Agrawal, Chairman, BoG, IIT Delhi | 22. | Smt. Vibha Puri Das, Secretary, Deptt. of HE, MHRD |
| 6. | Prof. M. Anandkrishnan, Chairman, BoG, IIT Kanpur | 23. | Shri Ashok Thakur, Special Secretary, Deptt. of HE, MHRD |
| 7. | Prof. M.M. Sharma, Chairman, BoG, IIT Madras. | 24. | Shri R. D. Sahay, Joint Secretary, Deptt. of HE, MHRD |
| 8. | Shri Shiv Nadar, Chairman, BoG, IIT Kharagpur | 25. | Shri Ajai Choudhary, Chairman, BoG, IIT Hyderabad. |
| 9. | Prof. Devang V. Khakhar, Director, IIT Bombay | 26. | Prof. Goverdhan Mehta, Chairman, BoG, IIT Jodhpur |
| 10. | Prof. R.K. Shevgaonkar, Director, IIT Delhi | 27. | Prof. Sudhir K. Jain, Director, IIT Gandhinagar, |
| 11. | Prof. S.G. Dhande, Director, IIT Kanpur | 28. | Prof. Anil K. Bhowmick, Director, IIT Patna |
| 12. | Prof. Damodar Acharya, Director, IIT Kharagpur | 29. | Prof U.B. Desai, Director, IIT Hyderabad, |
| 13. | Prof. Bhaskar Ramamurthi, Director, IIT Madras | 30. | Prof. M.K. Surappa, Director, IIT Ropar |
| 14. | Prof. Gautam Barua, Director, IIT Guwahati | 31. | Prof. Madhusudan Chakraborty, Director, IIT, Bhubaneshwar |
| 15. | Prof. Pradipta Banerji, Director, IIT Roorkee | 32. | Prof. Timothy Gonsalves, Director, IIT Mandi |
| 16. | Prof. Ved Prakash, Chairman, UGC | 33. | Prof. Pradeep Mathur, Director, IIT Indore |
| 17. | Shri J. Satyanarayana, Secretary, Department of Information Technology | | |

All India IIT Faculty Federation

Annexure-II



Professor K. Narasimhan
President
Dept. of Metallurgical Eng. & Mat. Sci.
IIT Bombay, Powai, Mumbai 400 076

Professor Atul K. Mittal
Secretary
Department of Civil Engineering
IIT Delhi, Hauz Khas, New Delhi 110 016
AIIITFF/05/12, Dated 09 May, 2012

To,
Shri Kapil Sibal
Honorable Cabinet Minister & Chairman, IIT Council
Ministry of Human Resource Development, New Delhi

Subject: Consolidated Feedback From the IIT Senates with Regards to the Undergraduate Admissions

Dear Sir:

As per your guidance and initiative, the various IIT Senates have now discussed the Ramasami Committee Report and its variations with regards to the undergraduate admissions to the IITs. We have now consolidated and compiled the views from the various Senates, which is attached for your ready reference. The majority views emerging from the various Senates on the critical issues are summarized below:

1. The current practice of admissions to the undergraduate program to the IITs to continue unchanged for the year 2013.
2. From 2014 onwards, the National entrance test is to be used as the Screening test for the purpose of admissions to the undergraduate program to the IITs. From the National entrance test, a fixed number of candidates (about 50,000) will be chosen who will become eligible to appear in the advanced test to be conducted by the IITs.
3. IITs will conduct the advanced tests for the above Screened candidates. Only the performance in this advanced test will be used to select and admit candidates to the IITs undergraduate programs.
4. The details of the IITs advanced test will be finalized in due course of time by discussion amongst the IITs, so that it can be implemented from the year 2014.
5. The board performance is NOT to be used for the preparation of the final merit list, which will be based on only the IIT advanced test.

It is important that the above collective majority views of the various IIT Senates must be upheld during the Council meeting on May 12, 2012.

We will be happy and honored to participate and provide any additional inputs in this regard during the IIT Council meeting scheduled on May 12, 2012.

Thanking you and with kind regards,

K. Narasimhan

K. Narasimhan

A. K. Mittal

A. K. Mittal

cc. All IIT Directors, All IITs BoG Chairman

Summary of the Majority Views of the IIT Senates

| IIT> | IIT Bombay View | IIT Delhi View | IIT Madras (Preferred View) | IIT Kanpur View | IIT Kharagpur View | IIT Guwahati View | IIT Roorkee View | Majority View |
|--|-----------------|----------------|-----------------------------|-----------------|--------------------|-------------------|------------------|--|
| Issue | | | | | | | | |
| Current Practice to Continue in 2013 | Yes | Yes | No Comment | Yes | Yes | Yes | Not Clear | Yes (5/7) |
| Use National Common Exam as a Screening Test from 2014 | Yes | Yes | Yes | Yes | Yes | No Comment | Yes | Yes (6/7) |
| IITs to Conduct its own Test to Select Candidates from the Screened List from the National Test | Yes | Yes | Yes | Yes | Yes | No Comment | Yes | Yes (6/7) |
| Board Performance to be Added in Final JEE Ranking of IITs | No | No | No | No | No | Yes | No | No (6/7) |
| Mechanism of Overall Inclusion of Board Performance | Cut off | Cut off | Screening | Cut off | Not Clear | Not Clear | Screening | If at all to be considered only for the Cut-off or for the Screening |

From the comparison and consolidation of the views of the various Senates, the following majority views clearly emerge and should therefore be upheld:

1. The current practice of admissions to the undergraduate program to the IITs to continue unchanged for the year 2013.
2. From 2014 onwards, the National entrance test is to be used as the Screening test for the purpose of admissions to the undergraduate program to the IITs. From the National entrance test, a fixed number of candidates (about 50,000) will be chosen who will become eligible to appear in the advanced test to be conducted by the IITs.
3. IITs will conduct the advanced tests for the above Screened candidates. Only the performance in this advanced test will be used to select and admit candidates to the IITs undergraduate programs.
4. The details of the IITs advanced test will be finalized in due course of time by discussion amongst the IITs, so that it can be implemented from the year 2014.
5. The board performance is **NOT** to be used for the preparation of the final merit list, which will be based on only the IIT advanced test.
6. There is no clear majority view emerging with respect to the issue: whether to use board marks as cut-off or as part of the initial Screening process. IITs would like to carry out detailed analyze of the board data in this respect.

COUNCIL OF IITS

AGENDA

Meeting No. : 44th

**Venue : Senate Room,
Indian Institute of Technology, Delhi,
Hauz Khas,
New Delhi – 110 016.**

**Date : 12th May, 2012
(Saturday)**

Time : 11.00 A.M.

**SECRETARIAT OF THE COUNCIL OF IITs
MINISTRY OF HRD, NEW DELHI**

*Annexure-III to the Agenda for the
44th Meeting of the Council of IITs
held on 12-05-2012 at the
Senate Hall of IIT - Delhi*

Annexure - III

Minutes / Resolution of Senates received from seven older IITs


| Sl. No. | Name of the Institute | Annexure |
|---------|-----------------------|----------|
| 1. | IIT Kharagpur | III-A |
| 2. | IIT Guwahati | III-B |
| 3. | IIT Roorkee | III-C |
| 4. | IIT Madras | III-D |
| 5. | IIT Kanpur | III-E |
| 6. | IIT Delhi | III-F |
| 7. | IIT Bombay | III-G |

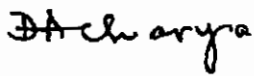
**INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR**

Dated, May 03, 2012

A special senate meeting where all faculty were invitees, was held on 02.05.2012 at 3.00 PM. In Kalidas Auditorium of the Institute. Prof. Gautam Barua, Director, IIT Guwahati was invited to the meeting to help discussion on the single agenda item "To discuss the alternate admission system for Engineering Programmes in India through Joint Entrance Examination". Various issues related to the JEE for admission to all Engineering Institutions were discussed. The following resolutions were taken:

1. The pride of IIT JEE must be retained.
2. IIT Kharagpur is willing to expand the ambit of IIT JEE for use by other institutions.
3. IITs should have complete control of policy decisions and academic related matters of setting question papers, printing of papers, evaluation, and merit list preparation etc.
4. Common core syllabus in Physics, Chemistry and Mathematics across the Boards must be ensured.
5. A better normalization procedure for different Board Scores may be explored.
6. A minimum of two years lead time is necessary for examining the effect of the Board performance on the JEE ranking and the availability of Board result in time.


(T. K. Ghosal)
Registrar(Offg.) and
Secretary, Senate


(D. Acharya)
Director and
Chairman, Senate

Item 1 : To consider the draft proposal for introducing changes in the IIT JEE system for admission to undergraduate programmes in IITs.

The Senate discussed the draft proposal for changes in the IIT JEE system for admission to undergraduate programmes in IITs. After a detailed discussion, the Senate resolved as follows:

1. The Senate of IIT Guwahati is in broad agreement with the proposal.
2. The Senate is of the view that the Main examination should be an aptitude test. It should test for analytical, reasoning and logical skills. The paper should be available in all official languages.
3. The Senate is of the view that, due to various reasons, some of which are given below, the changes to the existing IIT JEE examination should not be done before 2014:
 - a. Formation of committees and specifying the terms of reference of each committee will take some time.
 - b. The syllabi for the Main and Advanced Tests have to be decided and sample questions released.
 - c. The aptitude test preparation will take time, as there is no experience in setting such tests, and there is a need to have papers in multiple languages.
 - d. How the Board marks will be used in the ranking process needs to be discussed further, and inputs need to be taken from all Boards. It has to be ensured that the proposal of including the marks of five subjects as proposed will be acceptable to all Boards. Issues of how to handle the H.S.C Vocational examination, Diploma holders, and foreign Boards considered as equivalent to class Boards by AIU, need to be considered.

R.90/1/2012: The Senate **RESOLVED** that the observations on the draft proposal for introducing changes in the IIT JEE system for admission to undergraduate programmes in IITs, as per details as stated above, **BE APPROVED.**

The Meeting ended with a vote of thanks to the Chair.

The Secretary, Senate

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IIT ROORKEE

Annexure-TU-C

No.DIR/IITR/
4th May, 2012

Dear Shri Sahay,

Kindly refer to your letter D.O. No.F.21-3/2012-TS.1 dated 3rd May, 2012 regarding Lok Sabha Starred Question No. 472 : Common Entrance Examination. We are sending the information as discussed in faculty meeting and finally accepted by the Senate.

Abstract from the Urgent Meeting of the Senate on 28th April, 2012.

The Chairman (Director) provided a briefing on the proposal from MHRD for a Common Entrance Examination for Admission to Engineering Programmes in the Centrally Funded Technical Institutes (CFTIs), in the light of the recommendations of the Ramasami Committee, and gave a brief overview of the discussions held in the Institute Faculty Meeting held on 23rd April, 2012. After significant discussion on the proposal, the Senate decided as under:

- (1) Admissions to Engineering Programme in the Centrally Funded Technical Institutes should be made through a two stage examination process, with effect from the academic session 2013-14.
- (2) **Stage-I:** The Stage-I examination would be conducted by the Central Board of Secondary Education in April 2013. It would be an objective answer type of examination in Physics, Chemistry and Mathematics and would carry a weightage of 60%. The remaining 40% weightage would be given to the 12th Board performance as proposed by Gautam Barua.

Stage-II: The top 5 percentile of the group of candidates arrived at by adding the normalised score of Stage-I written examination, and the normalised score in the 10+2 examination as detailed in Para (2) above, are to be permitted to appear in the Joint Entrance Examination, which will be jointly conducted by the IITs. This examination will consist of a descriptive type of question paper in Physics, Chemistry and Mathematics. Since the Board Examination marks will be available only by early June 2013, the JEE examination will be held in early July 2013. The ranks for admission to the IITs will be based only on the performance of a candidate in the JEE examination. The whole process of evaluation and counselling should be completed by early August. The semester can start by late August or early September. The Academic Calendar of the IIT system shall accordingly be aligned and modified. The Senate of IIT Roorkee does not see a problem with the shifting of the academic calendar from end July to end August

I hope this is in order and look forward to meeting you on 12th May, 2012 in the IIT Council Meeting.

With kind regards,

Yours sincerely,

(Pradipta Banerji)
Director, IIT Roorkee

Shri R.D. Sahay
Joint Secretary
Govt. of India
Ministry of Human Resource Development
Department of Higher Education
Shastri Bhavan
New Delhi - 110 115

Email: rdshay.edu@nic.in



INDIAN INSTITUTE OF TECHNOLOGY MADRAS

Extract from the minutes of the 254th meeting of the Special Senate held on 03.05.2012

The 254th meeting of the Special Senate was held at 3.00 p.m. on 03.05.2012 at the Central Lecture Theatre. The extract from the minutes of this meeting pertaining to the proposal for the new JEE based single examination is furnished below:

Proposal for the New JEE based on a Single Examination

The Senate of IIT Madras deliberated the proposal for the new JEE based on a single examination. The Senate favoured a single-day entrance examination consisting of a Main test with MCQ questions in Mathematics, Physics and Chemistry, and an Advanced *Quantitative* test based on the same subjects. The latter test will have problems with numerical answers, possibly in multiple parts. The answers will be entered by the candidates on a machine-readable form.

The Senate recommended two options as described below for ranking the candidates for admission to the IITs. Of the two, **Option 1 is the preferred option of IIT Madras.** In Option 1, the concept of *gating* is introduced. All candidates with weighted marks above a pre-announced (at the time the examination brochure is released) Minimum Qualifying Mark (MQM) will be considered for ranking using the marks obtained in the Advanced Quantitative paper. In Option 2, a weighted mark obtained from Board percentile rank, Main test marks and Advanced Quantitative test marks will be used for ranking.

The weights recommended by the Senate for the three components, namely, Board percentile rank, Main marks, and Advanced Quantitative marks, are given in the brackets.

Option-1 (preferred):

A weighted mark obtained from Board percentile rank (0.4) + Main test marks (0.6) will be used for gating purpose alone. Advanced Quantitative paper marks alone used for ranking the candidates for IIT admission. Only those candidates with the weighted mark higher than the pre-announced MQM will be ranked using the Advanced Quantitative paper marks.

Option-2:

A weighted mark obtained from Board percentile rank (0.2) + Main test marks (0.4) + Advanced Quantitative test marks (0.4), will be used for ranking candidates for IIT admission.

(PROF. BHASKAR RAMAMURTHI)
Director and Chairman, Senate

IIT KANPUR :

After detailed discussions, the Senate expressed that the following views concerning the proposal of a common national test and JEE be forwarded to IIT Council.

1. The Joint Entrance Examination of IITs should take place in 2013 largely in the same format as has been happening in recent years. Any minor change can be done by the Joint Implementation Committee (JIC) and Joint Admissions Board (JAB), as has been happening from time to time.
2. The eligibility for JEE-2013 should continue to be 60 percent and 55 percent, depending on the category of the student, for those who gave 12th class examination in 2012 so that they are not affected in any way by the change. However, those students who will appear for the Board Examination in 2013, the eligibility for appearing in JEE may be decided on percentile terms. Final decision about the issue of considering the Board performance in percentile form should be taken by JAB.
3. IIT Kanpur desires to have a two-stage process for admission from 2014. It is agreed that in principle, the first stage (screening) could be the common national test, and the second stage should be JEE conducted by IIT system.
 - (i) Chairman, Senate shall appoint a committee which will interface with the group responsible for the common national test. The committee shall provide inputs about what may be tested (for example, aptitude, communication skills, etc., beyond Physics, Chemistry, and Mathematics). This committee shall identify expertise within the Institute and coordinate the contributions of IIT Kanpur towards the common national test
 - (ii) The decision of using the common national test as a screening test for JEE will be re-affirmed by Senate in July 2013 based on the feedback by this committee.
4. When a two-stage admission process is implemented, JAB should decide the format of the JEE, the number of candidates to be permitted, and other operational details.
5. Even when two-stage admission process is implemented, the ranking for the purpose of admission shall be only based on performance in JEE. No weight is to be given to national test and/or board performance in ranking.
6. IIT Kanpur would be willing to provide necessary help and expertise, primarily in academic matters, to develop a high quality national test in the country.

IIT DELHI

Minutes of the Senate -Special/1 meeting held on 2/5/2012 in the Seminar Hall

Present :

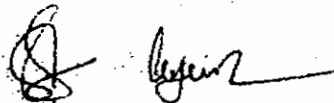
The names of the members who attended the meeting are given at Appendix A.

The Chairman, Senate welcomed all the senate members, special invitees and faculty members to the special meeting of the Senate.

Item No.1: To consider and discuss the new Education System for the Engineering Institutions including IITs.

The Chairman, Senate gave a brief background for convening the special meeting of the Senate. He informed the Senate that a meeting of All IITs Faculty Federation with Hon'ble Minister for Human Resource Development was held on 11th April, 2012 at Vigyan Bhawan where it was decided to refer the matter related to proposed reforms in the admission system to IITs to the Senates of all IITs. It was also decided there that the views of the Senates will be considered by IIT Council (scheduled to meet on 12th May, 2012).

The meeting started with a detailed presentations on the issue by Prof. Sanjeev Sanghi representing the Faculty Forum and Prof. M. Balakrishnan on behalf of a committee constituted earlier by the Director on the issue.



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After detailed deliberations, there was a unanimous agreement on the following:-

- a) The proposed reforms suggested by Ramasami Committee may not serve the purpose of achieving the stated objectives of these reforms, i.e. alleviation of multiple entrance exams related stress on students, restoration of the foundation of school education system and reducing the influence of the coaching institutions.
- b) Students writing class XII exam in 2012 are not aware of the likely policy changes in the admission system to CFTIs and many of them will take entrance exam for IITs in 2013. As such any significant change in the existing advanced system for IITs, including giving weightage in percentile form to class XII marks, would be unfair to them. Further the policy changes should be implemented only after a thorough scientific analysis of related information such as statistics from various State Boards etc. As such any changes in admission system to CFTIs including the IITs should be implemented only from 2014.
- c) Class XII marks (in absolute percentile form) should be considered only as a qualifying criterion. Even now these marks are used as a qualifying requirement for admission to IITs, i.e. a 60% threshold is in place. This threshold can be raised, after careful statistically validated analysis, so that a

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viable admission process to the IITs can be formulated, without undercutting the importance that should be accorded to the Class XII examination. The Class XII examination performance should, however, not be given any weightage while preparing the merit list of students for admission to IITs, for a variety of reasons, academic as well as practical.

- d) There should be a two-tier process for entrance to IITs. The main examination (in the proposed reforms) will be the first tier, which will serve the purpose of both a qualifying and a screening examination for the second tier, i.e., advanced examination (as per proposed reforms).

The main examination will be based on Physics, Chemistry, Mathematics and General Aptitude, and may be in MCQ format, so it can be administered to a large number of students nationally.

- e) The main examination may be held more than once in a year and a candidate's score in this examination should be valid for two years. A candidate can appear for the main examination multiple times and the best of the candidate's performances will be considered.

- f) The top few percentile students (such that the number of qualifying candidates be 5-10 times the number of seats in all IITs) in the merit list of the main examination will be eligible to appear in an advanced examination, which may be of a non-MCQ format, in the subjects of Physics, Chemistry and Mathematics. The responsibility of conducting this examination will rest solely with IITs, as it does in the present IIT JEE. Admission to the IITs shall

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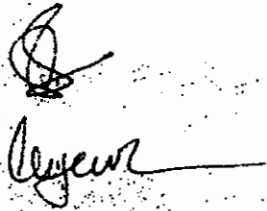


be based on a merit list prepared solely on the basis of the advanced examination.

The advanced examination will be conducted only once a year and a candidate will be permitted to take the advanced examination a maximum of two times.

The Chairman, Senate was authorized to convey the views of the Senate to the IIT Council.

The meeting ended with a vote of thanks to the chair.

A handwritten signature in cursive script, appearing to read "Ajay Kumar", is written below five asterisks.

Indian Institute of Technology Bombay

**Report of the Senate Subcommittee on UG Entrance
(03 May 2012)**

A Senate Subcommittee was constituted by the Chairman, Senate to look at the future model of UG entrance to IITs in view of the Ramasami Committee report and to prepare a report by 30th April 2012, for presentation to the Senate for discussion and for eventually forwarding the view of the Senate to MHRD. The committee members are

Prof. C. V. Tomy, Physics
Prof. K. Narasimhan, MeMS
Prof. A. V. Mahajan, Physics
Prof. Avijit Chatterjee, Aerospace
Prof. Anil Kumar, Chemistry
Prof. S. S. Major, Physics
Prof. A. K. Pani, Mathematics
Prof. D. K. Sharma, Electrical Engg. Dept
Associate Dean AP
Dean AP (Convener)

The Subcommittee held its first meeting on 18th April. After going through the inputs received from the faculty members and the various documents related to the recent proposals on UG admissions, an interim report was prepared, circulated and discussed in IFM. After further deliberations in subsequent four meetings, the recommendations were finalized on 30th April 2012.

Recommendations for UG Entrance to IITs

Admission to IITs is proposed to be carried out through a two-stage process. The proposed National Test for entrance to Engineering Institutions will be used as the first stage for the purpose of screening. For the students selected through this stage, IITs will conduct a separate second stage test for admission to IITs. All eligible students, including, diploma holders and foreign students will go through the same admission process.

A. The First Stage Test

1. The number of candidates selected by the First Stage Test will be about 5 times the total number of available seats in all the IITs.
2. Use of National Test for the purpose of screening will require that the merit list and the database of screened candidates are made available to IITs by the end of April.
3. IITs can provide the required academic support for the proposed National Test.

B. The Second Stage Test - JEE

1. The candidates selected through the First Stage Test will be eligible to appear in the Second Stage Test (JEE) only for that particular academic year, which will be held in May every year.
2. The merit list for admission to IITs will be based solely on the performance in the Second Stage Test.
3. JEE will be conducted by IITs as a subjective type test based on conceptual understanding, analytical thinking and problem solving abilities. It will consist of separate sessions for Physics, Chemistry and Mathematics.

C. Role of Class XII Board Performance in Admission

1. Performance in the Board examination will be used only as an eligibility requirement for admission to IITs.
2. At present, we do not consider it feasible to give weightage to Board performance in the preparation of merit list for admission. This may be reviewed and considered at a later stage.

D. Year of Implementation

Given the changes being proposed in the examination style, the scheme should be implemented from 2014 onwards.

Explanation

1. Preamble

MHRD's concern on multiplicity of entrance examinations for engineering institutions, increasing stress on aspiring students, neglect of school education system and growing dependence on coaching are genuine and timely. It is also heartening to see that efforts are being made to find solutions to these problems, with a national perspective in mind. Though it is not stated explicitly, there is a feeling in certain quarters that the above problems are rooted primarily in the present structure of JEE. This is debatable. Only about 10% of class XII students who appear for JEE cannot be held responsible for all the ills of the school education system. However, this perception has gained credence, especially due to the large increase in JEE aspirants during the last 5-6 years (~500 %), to the current level of over 5 lakhs. Given that there are only 10,000 or so seats available in IITs, this implies a disproportionately large aspiration ratio of 50:1. Many of these aspirants, mostly from urban and semi-urban centres, are engaged in high intensity JEE coaching in various parts of the country at exorbitantly high costs and they visibly appear to neglect school education. It is also felt among certain sections of IIT faculty, that there is a perceptible degradation in the academic quality of students selected through the present JEE system. It is, therefore imperative that IITs take note of these issues and proactively participate in arriving at a workable solution.

At the outset, it may be mentioned that the solution to above problems needs to be two-fold.

- i) IITs being premium educational institutions of the country must be able to select the best available talent in the country.
- ii) The large number of students (currently about five lakhs) competing for the 10,000 IIT seats should be reduced to a much smaller number. This will enable the other students to realize their true potential through alternative endeavours.

2. Feedback on the MHRD Model

2.1 A Common Single Stage Test for IITs and Other CFTIs

Although it is agreed that the ever increasing multiplicity of engineering entrance tests is becoming a national menace, it may be too stressful for all the students of the country, coming from diverse backgrounds, to undergo a 'single' test for admission to nearly all the reputed engineering institutions. Incidental poor performance or a medical problem on a particular day or just an 'off day' can adversely affect the student's prospects for his/her whole life and career. Choice of a few (3-4) entrance tests for differently staked groups of engineering institutions is, therefore, more desirable to give back-up choices to the students.

2.2. Weightage to Class XII Board Performance in Admission

The spirit behind giving weightage to the Board performance of students is to be appreciated. The difficulty in its implementation is the heterogeneity in syllabus, instructions and evaluation process in various Boards in the country which makes normalization across the Boards infeasible. A hasty implementation is likely to have the following negative implications.

- (i) Giving weightage to Board performance for an admission process with high stakes may make the Board exams highly vulnerable to unfair practices, including impersonation, which may not be easy to control with their limited resources.

- (ii). It will encourage proliferation of 'integrated coaching schools' in urban centres, starting as early as class 6-7 level and demanding exorbitantly high fees. This development will not only be further detrimental to the quality of basic school education but will also result in strong negation of inclusivity on all counts.
- (iii) In case a normalization formula is implemented, its procedural viability and legal tenability will be subjected to a stern test, owing to the high stakes in IIT admission. There is a potential danger that due to these procedural reasons, the complete engineering admission process of the country can become chaotic or may even be brought to a halt due to litigations.

3. Justification of the NTB Model

Admission to IITs is proposed to be carried out through a two-stage process. The first stage will facilitate the selection of about 50,000 JEE aspirants who will prepare for the second and final stage JEE. These 50,000 screened candidates will get at least one month or so after Board examinations to prepare for the second stage JEE.

3.1. First Stage Test

A national level test is being proposed for CFTI's. IITs will be happy to provide academic support for this. IITs will use it as their screening test subject to the availability of its results by the end of April.

3.2. Second Stage Test - JEE

The second stage subjective test (JEE) for 50,000 candidates will be conducted by IITs to evaluate the depth of conceptual understanding, analytical thinking and problem solving abilities, and hence, their aptitude and potential for academic engagement at the frontiers of science and technology. It is important to limit the examinees to a reasonable number, so that the conduct of this important stage of IIT entrance examination and its evaluation process can be carried out with diligence and uniformity, given the constraints of available human resources and time.

3.3. Role of Class XII Board Performance

- Performance in board examination will be used as an eligibility requirement for admission to IITs.
- At present, IITs do not consider that it is feasible to give weightage to Board performance in the preparation of merit list for admission. This may be reviewed and considered at a later stage.

3.4. Year of Implementation

Given the changes being proposed in the examination style, IITs will need time for extensive preparation for adopting the new procedure for pre-selection and for the final subjective test. The students also need due notice to prepare for this exam. In view of this, it may not be possible to implement this scheme from 2013. We recommend that the scheme be implemented from 2014.