Report of the Committee to suggest reforms in UG admissions
May 3rd, 2012

The committee had submitted its preliminary report on 17th April, 2012. The report suggested a large number of options, which were broadly classified into three groups. These three classes wee:

1. Exclusive use of ISEET for admission.
2. Exclusive use of JEE for admission.
3. Combined use of ISEET and JEE for admission.

The committee requested Senate to provide guidelines on what options should this committee pursue for its final proposal. During the discussion in the Senate, there were divergent views about these options. However, it appeared that the preference was to continue JEE for UG admissions in 2013, and starting next year (2014), using ISEET as a screening test, followed by a changed format of JEE for a smaller number of candidates.

Since the views were divergent, and also Senate desired to get an input from all faculty members and students, it was decided that two discussions be organized – one with all faculty, and the other with all the students. The first discussion was organized on 2nd May, 2012. It was attended by about 30 faculty members, but only about 10 non-Senators attended the same. The views expressed in the meeting have been taken into account while preparing this report. The second discussion is being organized on 4th May, 2012, where all students are invited. Since the Senate meeting is on 5th May, 2012, the committee felt that feedback from that meeting could be directly presented on the floor of the Senate, instead of delaying this report further.

The committee has had two more meetings since the submission of its preliminary report. They were held on 27th April, and 2nd May, respectively. The committee notes that its recommendation falls into three categories. The overall structure and a few operational details (without which the structure will not be practical) need to be submitted by Senate to IIT Council. There are some additional operational details which, if Senate agrees, should be suggested to JAB for their consideration and implementation. And lastly, there is one recommendation which committee believevss will improve the quality of admissions, but requires wider consultation in a more formal way, both within the institute, and across IITs. We have pointed out these distinctions below while making specific recommendations.

It may be noted that the acronym "ISEET" has been used for the national test as described in the IIT Council document of 4th April, 2012, even though that document uses the acronym "JEE" for the national test. This is only to distinguish between the national test and the IIT test. Further, "ISEET" in this document only refers to the performance in the test, without consideration of the board marks. It is also understood that all details of ISEET are not frozen yet, and there may be more changes in the future, not just for the first ISEET exam in 2013, but even beyond that. The committee has only proposed use of

ISEET as a screening test for JEE. The committee has also suggested that IIT Kanpur (and IIT system, in general) remain involved with evolution of ISEET so as to make sure that it remains relevant to us as a screening test. However, if in future, ISEET changes itself in a manner that it seriously impacts the quality of admission in IIT Kanpur, the Senate should relook at the situation at that time.

JEE 2013

The Joint Entrance Examination should take place in 2013 largely in the same format as has been happening in recent years. Any minor change can and should be done by the Joint Implementation Committee (JIC) and Joint Admissions Board (JAB), as has been happening from time to time.

However, the committee suggests one change regarding the eligibility based on 12th class board marks. Currently, that eligibility stands at 60 percent and 55 percent, depending on the category of the student. The eligibility condition should be based on a normalized score (like percentile). Many people hold the view that percentile scores are not comparable across the boards. The committee appreciates that view, but believes that comparing scores in percent terms is worse than comparing scores in percentile terms. A change should not be rejected simply on the basis that the new system is not perfect. What needs to be discussed is not the perfection of the new system, but whether the new system is better than the existing system.

However, this should be considered only if we can get complete data from all boards in 2012, which enables us to study the normalized marks of all JEE selected candidates in 2012. If such data can not be made available in 2012, then this change should not be considered for 2013.

In case complete data can be obtained at least for all selected candidates, JEE could look at the percentile scores of all selected candidates in a particular category. It should then find out the lowest percentile score amongst all selected candidates (only those who had more than 60 percent or 55 percent marks). The eligibility for 2013 should be 60 percent for those who gave 12th class examination in 2012 so that they are not affected in any way by the change. For those who give 12th class examination in 2013, the eligibility should be in percentile terms, and same percentile score as the lowest percentile score amongst the selected candidates of that category in JEE 2012. It should also be announced that for JEE 2014, this eligibility condition may be increased by JAB. This announcement should be made prior to the 12th class examinations in 2013. The implication of this would be that someone not performing too well in the 12th class in 2013 may be allowed to give JEE in 2013, but not in 2014.

The eligibility condition should be considered every year by JAB, and minor changes may happen to it from year to year. The principle should be that the eligibility based on 12th class marks should not be so low that every one selected in JEE is above that cutoff.

At the same time, it should not be so high that a good student selected by JEE should fall prey to the poor-quality grading by the boards.

The committee also suggests another significant change in terms of counseling. *At the time of admission, the student should be admitted to the Institute, and not to a specific program.* It has been felt that it is not fair to assign programs based on an exam where 50 to 100 students may get different ranks on the same total score. The "error margin" is too high to justify such fine grained counseling. The Institute should try to convince other IITs through IIT Council, JAB, or any other forum, of not allocating programs at the time of admission. However, if all IITs do not agree to this, IIT Kanpur should still go ahead and do it for students admitted to IIT Kanpur.

The allocation of program should be at the end of first year, and should be based on both the performance in JEE, and the performance in the first year at IIT Kanpur. By giving weight to JEE performance, it will be ensured that higher ranked students will have a higher probability of getting their choice at the end of the first year.

The committee recognizes that if IIT Kanpur were to go alone in this, it will find it difficult to attract students with top ranks in JEE. Perhaps very few students in the top 500 ranks will join the Institute. (But it will depend on the weight that the final proposal gives to JEE performance.) But such a proposal will attract a large number of middle rankers, since they will now have a chance to get a program of their choice, which they cannot get in other IITs. More importantly, the first year students will continue to focus more on academics. Currently, it is felt that the students lose momentum after selection in JEE, and by the time they realize their folly, it is often too late. And, of course, if other IITs also agree to this either jointly or at a later date after looking at out experiment, it will go a long way in reducing stress of JEE amongst the 12th class students. It will also focus our attention on how to creatively deal with the common core. The committee believes that the advantages of such a system are far too many and more than adequately compensate for the loss of some students from the top 500 ranks that may happen as a result.

There are many details that will need to be worked out, and if Senate agrees with this idea in principle, then a committee may be formed to frame a specific proposal and seek wider consultation on that proposal from students and faculty in the Institute. The committee hopes that this proposal will finally be approved before September 2012 in order to implement it from JEE 2013 itself.

Combined use of ISEET and JEE from 2014 onwards

The committee proposes that the following process could be used starting 2014:

1. JEE shall be held around 15th May in each year.

2. For JEE 2014, there will be two screening tests: ISEET held in Nov/Dec 2013, and ISEET held in April, 2014.

   a. However, April, 2014 ISEET will be a screening test, only if the result of this test is guaranteed to be declared by 30th April, 2014. JIC and JAB will monitor ISEET in April 2013 to decide whether it can be trusted that the results will indeed be available on 30th April. Otherwise, only ISEET of Nov/Dec 2013 should be used as a screening test.

   b. While in the steady state, the number of candidates allowed to give JEE should be about 5 times the number of seats available in the IIT system, in the first year (2014), the number of candidates should be about 10 times the total number of seats. This is to ensure that we are not missing out on good students due to some issues with ISEET that we cannot predict as of now. Once, ISEET has established itself, and we have studied correlation between ISEET selections and JEE selections, and if we notice that most of our selections are from higher ranks in ISEET, JAB can decide to slowly decrease the number of candidate screened for JEE, and if everything goes smoothly, we shall reach a steady state of JEE candidates being five times the number of seats in the IIT system.

   c. The number of candidates screened from two ISEETs will be in proportion to the number of candidates sitting for the two exams. However, if ISEET comes up with a standardized score, where by the performance of multiple exams can be compared; a cutoff based on this standardized score may be decided by JAB.

   d. It is proposed that students selected for KVPY, NTSE, and International Olympiads be allowed to give JEE even if they don't sit for ISEET. JAB can decide on other screening methods.

3. A student is eligible to give JEE twice, once in the year of passing 12th class, and second, in the year following the year of passing 12th class. A student who is screened by ISEET in the year of passing 12th class, will not need to give ISEET the next year, and will still be able to give JEE in that year.

4. **The rank of the candidate will be based solely on the basis of performance in JEE.**

5. As proposed for JEE 2013, the eligibility in terms of board performance should be in terms of normalized score (percentile) and should be kept high enough that the candidates are required to pay some attention to the board exams, but not so high that poor grading practices of the board could cause harm to an otherwise good student. The exact cut-off will have to be determined by starting with a liberal cutoff, studying the data over the first few years, and if data permits, slowly

making the eligibility condition tighter. As mentioned above, this decision may be taken by JAB from year to year.

6. Since JEE will be held for a smaller number of candidates (maximum 1 lakh as opposed to 5-6 lakhs currently), it will allow IIT system to do it in a very different way. In particular, it would be possible to include questions which require a descriptive answer, as opposed to MCQ based test that we currently have. However committee cautions that the exact nature of test, and in particular, the number of questions with descriptive answers, should be based on the availability of resources within the IIT system for grading of the exam. This decision should be taken by JAB.

7. The committee also recommends that the setting of question papers for JEE may include experts from outside IIT system, and in particular, faculty members from IISERs. If possible from the confidentiality point of view, JIC should consider including one teacher involved with school level teaching (perhaps from NCERT) in the team that prepares the question paper.

8. While IITs should determine the number of candidates based on the intake of IIT system, if others (including other CFTIs) want to admit students from JEE, JIC and JAB may make the results available to them.

9. IIT Kanpur should provide all necessary help and expertise to make ISEET a high-quality national test. It is expected that most of the help is in advising the organizers of the national test. Any major commitment in terms of conduct of the exam should be based on the resources within the Institute that can be made available, without seriously affecting the teaching and research commitments.

10. The committee suggests that IIT Kanpur should impress upon the organizers of ISEET to include a component of Aptitude test, and create a system whereby the national test becomes a standardized test over a period of time.

11. IIT Kanpur should establish a permanent UG admissions research committee, which shall, on an ongoing basis, make proposals regarding improvement in the UG admission processes. It will invite suggestions from all stake holders, hold discussions, study JEE data, gather information or data from any other source, and do whatever is necessary to come up with its proposals. Director, IIT Kanpur, should impress upon JAB to set up a *JEE Advisory Committee* across all IITs, with a similar mandate, consisting of one representative from each IIT. The convener of the UG admissions research committee shall be the nominee of IIT Kanpur to the JEE Advisory Committee, if such a proposal is accepted by JAB.