IIT-Bombay proposes change in advanced JEE

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MUMBAI: The Indian Institute of Technology-Bombay (IIT-B) has recommended a change in its Joint Entrance Examination (JEE)-Advanced to include a subjective test in the exam’s second stage from next year. The changes, which have been under discussion for some time, are part of the process for reforming the exams.

This year’s entry into the IITs will be determined by a two-stage process with a JEE (Main) for all candidates, followed by a JEE (Advanced) for the top 1.5 lakh candidates drawn from the first test. This year, both tests will be based on objective-type multiple-choice questions.

However, a report from a committee comprising IIT officials has now recommended that from 2014, the second stage exam be converted from a multiple-choice question-based test to a subjective one testing students’ understanding.

The IIT-Bombay senate broadly accepted the report recommending the changes, and made some additional recommendations at a special senate meeting early in March. The senate is an academic decision-making body comprising teachers.

For the new format to be implemented, all IIT senates would have to accept the report, and this is then likely to go before the Joint Admission Board (JAB).

The discussion around moving from an objective to a subjective format has been raging for some years now. “The recommended format would test basic understanding of a student’s knowledge of the subject rather than guess work,” said a senate member. “Negative marking would also go away.”

The minutes of the special senate meeting where the report was discussed are yet to be officially circulated, but IITB director Devang Khakhar confirmed the development. “The senate has agreed with the report [to a test] that would be beyond multiple-choice questions,” said Khakhar.

The committee set up to deliberate on possible changes was constituted by the JAB, with the report being submitted in December. IIT senates will be meeting and discussing the recommendations and then make their own recommendations.
Subjective test proposed for IIT-JEE stage two

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IITs head West for head-hunting

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NEW DELHI: To solve its faculty shortage problem, IITs are re-inventing their recruitment drives. A few IIT directors and senior professors are planning to personally visit the US — instead of just relying on Skype and video-conferencing — and other foreign countries to hire the best.
There are nearly 43% vacant faculty posts in all IITs. According to a recent reply in the Lok Sabha, against the total faculty strength of 6,076 in the 16 IITs across the country, there is a shortage of 2,608.
A team of senior professors from IIT-Kanpur, including the director and dean of faculty, will be visiting US from June 13-23 to interview prospective candidates. “We are organising three events at both coasts: meeting prominent alumni and potential faculty candidate,” Manindra Agrawal, Dean of Faculty IIT-Kanpur told HT.

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Pointing out that nearly half of its faculty comes from North America, Agrawal said “We have a target of recruiting more than 100 faculty over next three years ... This is not to say that we are not focusing within India.”
IIT-Kharagpur, IIT-Delhi and IIT-Bombay are also planning similar programmes. IIT-Delhi director RK Shevgaonkar said, “I have plans to go with some senior faculty members on a recruitment drive to the US later this year.” But added, “It is misleading to say that there is a shortage of faculty in IITs. Over the years the strength of students has increased, so obviously this will filter a shortage.”
अमेरिका से शिक्षकों की भर्ती करेगा आईआईटी

नई दिल्ली | विजया श्रीवास्तव

शिक्षकों की कमी को पूरा करने के लिए आईआईटी नियुक्त प्रक्रिया में बदलाव करने जा रहा है। विदेशों से पत्रियां करने के लिए जहां पहले स्काइप और वीडियो कॉन्फ्रेंसिंग का सहारा लिया जाता था वहां अब विदेशी प्रतियाँ को आईआईटी में लाने के लिए निदेशक और वरिष्ठ प्रोफेसर विदेश जाएंगे। इस प्रक्रिया में आईआईटी दिल्ली और खडगपुर सबसे आगे है। आईआईटी दिल्ली में करीब 43 फीसदी पद खाली है। लोकसभा में दिए गए उत्तर के अनुसार आईआईटी में 2608 शिक्षकों का टोटा है। आईआईटी में शिक्षकों की संख्या 6076 होनी चाहिए। इस गुद्दे पर आईआईटी दिल्ली के निदेशक आर.के.शिवगंगकर का कहना है कि पिछले वर्ष ही शिक्षकों की भर्तियाँ के लिए अमेरिका जाने की योजना बनी थी पर कुछ कारणों से ऐसा नहीं हो पाया।

उन्होंने कहा कि यह इस साल के अंत में कुछ वरिष्ठ शिक्षकों के साथ भर्तियाँ के लिए अमेरिका जाएंगी। उन्होंने कहा कि ऐसा कहना सही नहीं है कि आईआईटी में शिक्षकों की कमी है। पिछले कुछ सालों में आईआईटी में छात्रों की संख्या बढ़ी है। उन्होंने कहा कि शिक्षकों की भर्तियाँ के लिए गुणवत्ता के मामले में किसी तरह का समझौता नहीं किया जा सकता।
Chinese scientists create world’s lightest material

Press Trust of India

Beijing

CHINESE scientists have developed the world’s lightest substance — carbon aerogel — with a density only one sixth of that of the air. The study was published in the journal Advanced Materials.

Scientists at Zhejiang University produced the solid material, which has a density of only 0.16 mg per cubic centimetre, breaking the previous record of the world’s lightest material held by graphite aerogel.

The graphite aerogel was developed by German scientists last year with a density of 0.18 mg per cubic centimetre.

The aerogel is a material produced with semi-solid gel dried and solvent removed. It appears in a solid state with many internal pores filled with air and thus it’s of minimal density. The research team led by professor Gao Chao freeze-dried solutions of carbon nanotubes and graphene to remove moisture and retain integrity.

“Carbon aerogel is similar to carbon sponge in structure. When an aerogel of the size of a mug is put on setaria, the slender grass will not bend,” Gao Chao said in a statement.

Despite its fragile appearance, carbon aerogel is excellent in elasticity. It can bounce back when compressed.

In addition, it’s one of the materials with biggest oil absorption capacity. Current oil absorbing products can usually absorb organic solvent of about 10 times of their own weight. The carbon aerogel newly developed can absorb up to 900 times their own weight.

“Carbon aerogel is expected to play an important role in pollution control such as oil spill control, water purification and even air purification,” Gao Chao said. It is expected to become an ideal material for energy storage insulation, catalytic carrier and sound-absorption.
CCTVs installed in JNU to keep eye on visitors

NEW DELHI, DHNS: Jawaharlal Nehru University has installed over 50 CCTV cameras on the campus with an aim to keep a check on outsiders.

“The surveillance cameras have been installed from the entry point to the administration block of the campus. Apart from the Sarawasti Puram entry gate, all the other entry points now have CCTV cameras installed. They have been installed in the libraries also. Fifty-three such cameras have been installed in the first phase,” said the official.

As per the official, past incidents of outsiders parking their vehicles inside the campus and picking fights with students led to the administration taking this step. “Many outsiders come and park in the faculty parking area and unnecessarily pick quarrels with students. There have been cases of eve teasing and chain snatching,” added the official.

In the second phase, all the schools, centres and hostels will be covered. “The second phase of installing cameras will start soon. Visitors have always been coming to the campus, there are dhabas which are open till late night, and the administration does not have anything against them. However in the past few years, we have witnessed bad behaviour from several such visitors. The dhabas which used to be open all night have been asked to shut down a little early to avoid incidents of drunken brawls by visitors which are on the rise,” added the official.