

Joint Entrance Examination

JEE 2008



for admission to Undergraduate Programmes at
Indian Institutes of Technology
Bombay.Delhi.Guwahati.Kanpur
Kharagpur.Madras.Roorkee

Institute of Technology BHU, Varanasi &
Indian School of Mines University, Dhanbad

IMPORTANT NOTES

1. Please ensure that you are using the correct Application Form: (i) form priced Rs. 500/- in a **white** envelope for SC/ST and all female candidates, and (ii) form priced Rs. 1000/- in a **blue** envelope for all other candidates.
2. A machine will process the Application Form and it picks up only dark pencil marks. Therefore, darken the bubbles corresponding to the alphabets/numerals **using HB pencil** only.
3. First, write in capital letters the required information with a black ink pen in the boxes (wherever provided) and then darken with an HB pencil the bubble corresponding to the appropriate alphabet/numeral underneath each letter. What you write in the boxes is only for your guidance and verification that you are darkening the bubbles corresponding to the correct alphabets/numerals.
4. Do not scribble, smudge, cut, tear, or wrinkle the Application Form. Do not put any stray pencil marks anywhere on the Application Form.
5. Your photograph, signature, and address shall also be scanned by a machine that recognizes only good quality images, and from only the specified areas of the form. Write your name and application number (using ball point pen only) on the reverse side of a good quality photograph in white background, taken not more than two months earlier, and paste it in the box provided. Sign in **black ink** only in the space provided.
6. Write your complete address giving your NAME and PINCODE carefully and legibly. Please note that this address block as filled by you will appear in all our correspondence with you, and therefore, it should be very clearly written in **black ink** only. If you make any mistake, cover the whole box with an exact-size white paper slip and write your address on it. Your address must not overflow this box. Any change in address of correspondence should be immediately intimated to the respective zonal JEE office by registered post.
7. **Refold the form only where it was originally folded. Do not pin or staple anything to the form.**
8. You are advised to ensure the correctness of your mailing address, PINCODE, e-mail, and telephone number. **Please note that office of JEE-2008 will not be responsible if you cannot be reached due to incomplete or illegible address, e-mail, or telephone number.**
9. You should submit **only one** application. In case you submit more than one application, then your candidature for JEE-2008 may be REJECTED.
10. You must quote the seven-digit application number of your Application Form as a reference in all future correspondence.
11. You must give two choices of JEE centres (refer to Appendix-I) from the **same IIT zone**.
12. Application Forms can be submitted by post or in person at the JEE office of the IIT in the zone in which the JEE centres of your choice are located. If you wish to send by post, send by **REGISTERED POST/SPEED POST** only. The application must reach the concerned IIT on or before **17:00 hours on January 4, 2008**. Do not send your application through private courier services. IIT will not accept responsibility for any postal delay or irregularity or loss in postal transit.
13. Acknowledgement Cards will be posted once your Application Form is received by the JEE office. The status of your application can be obtained from the website or by dialling the Interactive Voice Response System (IVRS) of the zonal IIT to which you have submitted your application. If the IVRS fails to indicate receipt of your form and if the Acknowledgement Card **does not reach you by January 28 2008, you must check with the JEE Office where you submitted your application** (Telephone numbers are given on the back cover of this brochure).
14. Your application must be complete in all respects. **Incomplete Application Form or an Application Form filled in a language other than English will be summarily rejected.**
15. Options given in the Application Form cannot, in general, be changed at a later stage.
16. The cost of the application material is non-refundable.
17. Candidates who have accepted admission by payment of full fees at any of the IITs, IT-BHU, Varanasi, or ISMU, Dhanbad, are not eligible to appear for the JEE-2008.
18. The Courts at Roorkee/Nainital alone shall have the jurisdiction to settle and decide all matters and disputes related to JEE-2008 as IIT Roorkee is the organising Institute.

CHECKLIST

Before posting the completed application, please go through the following checklist.

- You have used the correct Application Form relevant to your category/gender and filled the same properly.
- The application form is addressed to the concerned IIT as per your choice of JEE centres.
- You have written your address and application number on the Acknowledgement Card (no postage stamp needs to be affixed).
- You have enclosed an attested copy of the 10th Class or Equivalent Examination Pass Certificate, and the Acknowledgement Card with the Application Form in the envelope provided.
- You have followed all the instructions.
- You have retained a photocopy of the Application Form.**

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1 INTRODUCTION

The Indian Institutes of Technology are institutions of national importance established through an Act of Parliament. These institutes play a leading role in technological manpower development, and have research programs comparable to the best in the world. The admissions to the Undergraduate Programs at these institutions for all Indian and Foreign nationals are made through the Joint Entrance Examination (JEE).

Institute of Technology, Banaras Hindu University, Varanasi, is one of the oldest institution devoted to education in various engineering disciplines. Indian School of Mines University, Dhanbad, is the oldest institution of its kind in India. The admissions to the Undergraduate Programs at these institutions are also made through JEE.

All these institutions are known for providing quality education in science and technology and for research in frontier areas. The environment at these institutions is highly conducive for

- building a solid foundation of knowledge,
- development of personality, confidence building, self-discipline, pursuit of excellence, and
- enhancement of creativity, motivation, and drive.

All of the above help to prepare the students admitted to these institutions for successful professional and social lives. Today, alumni of these institutions occupy key positions in industry and academia in India and abroad.

Each institute has well-equipped modern laboratories, state-of-the-art computer network, and well stocked technical library. Teaching methods rely on direct personal contact between the teachers and the students, and the use of traditional and modern instructional techniques. Students live in a pleasant and intellectually stimulating environment with people having similar goals and aspirations, which is an exciting and unique experience.

Credit-based academic programs offer flexibility to students to progress at their own pace. A minimum level of performance is necessary for satisfactory progress. The medium of instruction is English. These institutions offer courses leading to Bachelor's degree in a number of engineering, technological, and scientific disciplines.

M.Sc. Integrated courses in pure and applied sciences and M.Tech. Integrated courses in a few disciplines are also offered by some of these Institutes. In addition, some IITs offer Dual-Degree M.Tech. programs, wherein both B.Tech. and M.Tech. degrees are awarded.

2 AVAILABILITY OF COURSES

Programme B.Tech. 4 Years	IIT	IIT	IIT	IIT	IIT	IIT	IIT	IT-BHU	ISMU
	Bombay	Delhi	Guwahati	Kanpur	Kharagpur	Madras	Roorkee	Varanasi	Dhanbad
Aerospace Engineering	•			•	•	•			
Agricultural & Food Engineering					•				
Biological Sciences and Bioengineering				•					
Biotechnology			•			•	•		
Biotechnology & Biochemical Engineering					•				
Ceramic Engineering								•	
Chemical Engineering	•	•	•	•	•	•	•	•	
Chemical Science and Technology			•						
Civil Engineering	•	•	•	•	•	•	•	•	
Computer Science & Engineering	•	•	•	•	•	•	•	•	•
Electrical Engineering	•	•		•	•	•	•	•	•
Electrical Engineering (Power)		•							
Electronics Engineering								•	•
Electronics & Communication Engineering			•				•		
Electronics & Electrical Communication Engineering					•				
Engineering Physics	•	•	•			•			
Environmental Engineering									•
Industrial Engineering					•				
Instrumentation Engineering					•				
Manufacturing Science and Engineering					•				
Materials & Metallurgical Engineering				•					
Metallurgical & Materials Engineering					•	•	•		
Mathematics and Computing			•						
Mechanical Engineering	•	•	•	•	•	•	•	•	•
Metallurgical Engineering								•	
Metallurgical Engineering & Materials Science	•								
Mineral Engineering									•
Mining Engineering					•			•	•
Mining Machinery Engineering									•
Naval Architecture & Ocean Engineering						•			
Ocean Engineering & Naval Architecture					•				
Petroleum Engineering									•
Production and Industrial Engineering		•					•		
Pulp & Paper Engineering							•		
Textile Technology		•							
B. Pharm. 4 Years									
Pharmaceutics								•	
B. Des. 4 years									
Design			•						
B. Arch. 5 years									
Architecture					•		•		
M. Pharm. Dual Degree 5 years									
Pharmaceutics								•	

Programme M.Sc. Integrated 5 Years	IIT	IIT	IIT	IIT	IIT	IIT	IIT	IT-BHU	ISMU
	Bombay	Delhi	Guwahati	Kanpur	Kharagpur	Madras	Roorkee	Varanasi	Dhanbad
Applied Geology					•				
Applied Mathematics							•		
Applied Physics									•
Chemistry	•			•			•		•
Economics				•	•				
Exploration Geophysics					•				
Industrial Chemistry					•				
Mathematics and Computing					•				•
Mathematics & Scientific Computing				•					
Physics				•	•		•		
Statistics & Informatics					•				
M.Sc. Tech. Integrated 5 years									
Applied Geology									•
Applied Geophysics									•
M.Tech. Integrated 5 years									
Geological Technology							•		
Geophysical Technology							•		
Engineering Physics								•	
Industrial Chemistry								•	
Mathematics & Computing		•						•	
Polymer Science and Technology							•		
B.Tech./M.Tech. Dual Degree 5 Years									
Aerospace Engineering	•			•	•	•			
Aerospace Engineering with M.Tech. in Applied Mechanics with specializations in Biomedical Engineering						•			
Agricultural and Food Engineering with M.Tech in any of the listed specializations					•				
Biochemical Engineering								•	
Biochemical Engineering & Biotechnology		•							
Bioengineering with M.Tech. in Biomedical Technology								•	
Biotechnology						•			
Biotechnology & Biochemical Engineering					•				
Ceramic Engineering								•	
Chemical Engineering				•	•	•			
Chemical Engineering with M. Tech. in Computer Applications in Chemical Engineering		•							
Chemical Engineering with M. Tech. in Hydrocarbon Engineering							•		
Chemical Engineering with M. Tech. in Process Engineering & Design		•							
Chemical Engineering with M. Tech. in Process Systems Design & Engineering	•								
Civil Engineering				•					
Civil Engineering with M. Tech. in Applied Mechanics in any of the listed specialization						•			

Programme B.Tech. / M.Tech. Dual Degree 5 Years	IIT	IIT	IIT	IIT	IIT	IIT	IIT	IT-BHU	ISMU
	Bombay	Delhi	Guwahati	Kanpur	Kharagpur	Madras	Roorkee	Varanasi	Dhanbad
Civil Engineering with M. Tech. in Infrastructural Civil Engineering						•			
Civil Engineering with M. Tech. in Structural Engineering	•							•	
Civil Engineering with M. Tech. in any of the listed specialization					•				
Computer Science & Engineering	•	•		•	•	•		•	
Computer Science & Engineering with M. Tech. in Information Technology							•		
Electrical Engineering				•					
Electrical Engineering with M. Tech. in Applied Mechanics with specialization in Biomedical Engineering						•			
Electrical Engineering with M. Tech. in Communications and Signal Processing	•								
Electrical Engineering with M. Tech. in Communication Engineering						•			
Electrical Engineering with M. Tech. in Information & Communication Technology		•							
Electrical Engineering with M. Tech. in Microelectronics	•								
Electrical Engineering with M. Tech. in Microelectronics & VLSI Design						•			
Electrical Engineering with M. Tech. in any of the listed specializations					•				
Electrical Engineering with M.Tech. in Power Electronics							•	•	
Electrical Engineering with M. Tech. in Power Systems and Power Electronics						•			
Electronics & Communication Engineering with M. Tech. in Wireless Communication							•		
Electronics & Electrical Communication Engineering with M. Tech. in any of the listed specialization					•				
Engineering Design with M.Tech in Automotive Engineering						•			
Engineering Physics with M.Tech in Engineering Physics with specialization in Nano Science	•								
Industrial Engineering with M. Tech. in Industrial Engineering and Management					•				
Manufacturing Science & Engineering with M. Tech. in Industrial Engineering & Management					•				
Materials Science & Technology								•	
Mechanical Engineering				•				•	
Mechanical Engineering with M. Tech. in Computer Aided Design & Automation	•								
Mechanical Engineering with M. Tech. in Computer Integrated Manufacturing (CIM)	•								
Mechanical Engineering with M. Tech. in Energy Technology						•			
Mechanical Engineering with M. Tech. in Intelligent Manufacturing						•			
Mechanical Engineering with M. Tech. in Product Design						•			
Mechanical Engineering with M. Tech. in any of the listed specialization					•				

Programme B.Tech. / M.Tech. Dual Degree 5 Years	IIT	IIT	IIT	IIT	IIT	IIT	IIT	IT-BHU	ISMU
	Bombay	Delhi	Guwahati	Kanpur	Kharagpur	Madras	Roorkee	Varanasi	Dhanbad
Mechanical Engineering with M. Tech. in Thermal & Fluids Engineering	•								
Metallurgical Engineering								•	
Metallurgical Engineering & Materials Science with M. Tech. in Ceramics & Composites	•								
Metallurgical Engineering & Materials Science with M. Tech. in Metallurgical Process Engineering	•								
Metallurgical & Materials Engineering						•			
Metallurgical & Materials Engineering with M. Tech. in Metallurgical & Materials Engineering					•				
Mineral Engineering with M.Tech. in Materials Technology									•
Mineral Engineering with M.Tech. in Mineral Resource Management									•
Mining Engineering					•			•	•
Mining Engineering with MBA									•
Mining Engineering with M.Tech. in Safety Engineering and Disaster Management in Mines					•				
Naval Architecture & Ocean Engineering						•			
Naval Architecture Engineering with M.Tech. in Applied Mechanics in any of the listed specializations						•			
Ocean Engineering & Naval Architecture					•				
Petroleum Engineering with M.Tech. in Petroleum Management									•
Process Engineering with MBA							•		

Some IITs may offer new courses not listed above. Information regarding these courses will be available at the time of counselling.

3 PATTERN OF JEE-2008

3.1 Question Papers

There will be two question papers, each of three hours duration. Both the question papers would consist of three separate sections on Physics, Chemistry, and Mathematics. Questions in these papers will be of objective type, which are to be answered on a specially designed machine-gradable sheet (ORS – Optical Response Sheet) **using HB pencils only. Incorrect answers will be awarded negative marks.**

3.2 Language and Font of Question Papers

Candidates can opt for Question Papers either in English or in Hindi. This option should be exercised while filling the application form, and it cannot be changed at any later stage.

Visually impaired candidates will be provided with question papers with 20% enlarged font. However, to avail this facility, candidates should make a request along with the application form.

3.3 Calculators and Log Tables

Use of calculators and log tables is **NOT permitted** in JEE-2008.

3.4 Aptitude Test for B.Arch. and B.Des.

Candidates called for counselling and desirous of joining the B.Arch. and B.Des. courses will be required to qualify in an Aptitude Test to be conducted at each counselling institute on **June 21, 2008**. The test will consist of two papers, each of two hours duration – from 10.00 a.m. to 12.00 noon, and from 2.00 pm to 4:00 pm. Candidates who fail to qualify in the Aptitude Test will not be eligible for admission to either B.Arch. or B.Des. courses. Question papers for aptitude test for B.Arch and B.Des will be in English only.

4 SCHEDULE OF JEE-2008

The examination will be held on **April 13, 2008 (Sunday)** as per the schedule given below:

09:00 – 12:00 hrs	Paper - 1
14:00 – 17:00 hrs	Paper - 2

The schedule will remain unaltered even if the above date is declared a public holiday.

5 RESERVATION OF SEATS

5.1 SC/ST Candidates

For candidates belonging to the SC and ST categories, respectively 15% and 7.5% seats are reserved in each program. Candidates belonging to these categories are admitted on the basis of a relaxed criteria (compared to the general (GE) category candidates). In case all the reserved seats are not filled, a limited number of candidates are admitted to a Preparatory Course of one-year duration on the basis of a further relaxation of the qualifying criteria. This course attempts to prepare the students in Physics, Mathematics, and Chemistry. On successful completion of the course, the students will be offered direct admission to the undergraduate programs in July 2009 against the unfilled reserved seats for JEE-2008.

SC and ST candidates will be required to produce the original caste/tribe certificate issued by a competent authority in the prescribed format (given in Appendix-II). These documents must be produced **at the time of counselling**, failing which they will not be considered for admission. Seats remaining vacant in these categories shall not be filled by candidates belonging to any other category.

5.2 Persons with Disability (PD)

For PD (including leprosy-cured) candidates, who are otherwise fit to pursue the course, and qualify JEE with relaxed norms relevant to this category, 3% seats are reserved as specified by the Government of India. For any category of disability (viz., locomotor, visual, speech, and/or hearing), benefit would be given to those candidates who have at least 40% permanent physical impairment in relation to a body part / system / extremity / extremities / whole body, etc.

The candidates in this category will be required to be certified by a Medical Board. The Medical Board will decide the following:

- whether the candidate qualifies for the benefits under this category, and

- if the disability is likely to interfere in his/her studies.

The Medical Board duly constituted for this purpose shall meet at the time of counselling at IIT Delhi on **June 17, 2008**. Candidates, who are not certified by the Medical Board as belonging to the PD category, will not be counselled under this category. **The decision of the Medical Board shall be final.**

Note: Reservation for OBC candidates, if any, would be communicated as and when the Government order for the same is issued.

6 PREFERENTIAL ALLOTMENT OF SEATS (DS Category)

Two seats are available for preferential allotment of courses in each institute for children of defence/paramilitary personnel **killed** or **permanently disabled** in action during war or peace-time operations (DS category). Candidates belonging to DS category should submit a copy of the relevant certificate issued by a competent authority in the Directorate of Resettlement and Rehabilitation, New Delhi (under the Ministry of Defence, Govt. of India) or in the Ministry of Home Affairs, Govt. of India, as applicable, along with the **application**. To avail this preferential allotment, candidates must qualify in the General (GE) Category and should produce the original certificate at the time of counselling.

7. ELIGIBILITY

A candidate has to satisfy all the eligibility conditions given below:

- A candidate can attempt JEE only twice, in consecutive years.
- Candidates appearing for JEE-2008 should have either passed in 2007 or should be appearing in 2008 in the qualifying examination listed in section 7.1 and should satisfy the eligibility criteria listed in section 7.2.
- Candidates should meet the age requirements given in section 7.4.
- Candidates should not have accepted admission by paying full fees at any of the IITs, IT-BHU, Varanasi and ISMU, Dhanbad, through earlier JEE.

7.1 Qualifying Examination

Candidates applying for JEE-2008 should have either

completed or should be appearing in 2008 in any one of the following qualifying examinations.

- i) The final examination of the 10+2 system, conducted by any recognized Central/State Board, such as Central Board of Secondary Education, New Delhi; Council for Indian School Certificate Examination, New Delhi; etc.
- ii) Intermediate or two-year Pre-University Examination conducted by a recognized Board/University.
- iii) Final Examination of the two-year course of the Joint Services Wing of the National Defence Academy.
- iv) General Certificate Education (GCE) Examination (London/Cambridge/Sri Lanka) at the Advanced (A) level.
- v) High School Certificate Examination of the Cambridge University.
- vi) Any Public School/Board/University Examination in India or in any foreign country recognized by the Association of Indian Universities as equivalent to the 10+2 system.
- vii) H.S.C. Vocational Examination.
- viii) Senior Secondary School Examination conducted by the National Open School with a minimum of five subjects.
- ix) 3 or 4-year Diploma recognized by AICTE or a State Board of Technical Education.

In case the relevant qualifying examination is not a public examination, the candidate must have passed at least one public (Board or Pre-University) examination at an earlier level.

7.2 Eligibility Criteria in Qualifying Examination

Candidates belonging to the GE and DS categories must secure 60% or more marks in aggregate in their Qualifying Examination. Candidates belonging to the SC, ST, and PD categories must secure 55% or more marks in aggregate in the Qualifying Examination. The percentage of marks awarded by the Board will be treated as final. If the Board does not award the percentage of marks, it will be calculated based on the marks obtained in all subjects listed in the mark sheet. If any Board awards only letter grades without providing an equivalent percentage of marks on the grade sheet, the candidate should obtain a certificate from the Board specifying the equivalent marks, and submit it at the time of counselling. In case such a certificate is not provided by the candidate, then the decision of the Joint Implementation Committee (JIC) regarding his/her eligibility shall be final.

7.3 Important Notes

- (i) Those candidates who will be appearing in the qualifying examination in 2009 or later are not eligible to apply for JEE-2008.
- (ii) All provisional admissions to candidates who are appearing in the qualifying examination in the year 2008 will stand cancelled, if the proof of having passed the Qualifying Examination, as per the eligibility criteria specified in section 7.2, is not submitted to the concerned Institute latest by **September 30, 2008**.
If a Board normally declares the results of the qualifying examination after 30th September of each year, students of such Boards are advised to attempt JEE in the following year.
- (iii) All admissions are subject to verification of facts from the original certificates/documents of the candidates. If an applicant is found ineligible at a later date even after admission to an Institute, his/her admission will be cancelled. The decision of the Joint Admission Board (JAB) regarding the eligibility of any applicant shall be final.
- (iv) For more clarification in respect of number of attempts and year of passing the qualifying examinations, please refer to FAQs (Frequently Asked Questions) available on JEE websites.

7.4 Date of Birth

Only those candidates, whose date of birth falls on or after **October 01, 1983**, are eligible to appear in JEE-2008. However, in the case of SC, ST, and PD candidates, the upper age limit is relaxed by 5 years, i.e., SC, ST, and PD candidates, who were born on or after **October 01, 1978**, are eligible. Date of birth as recorded in the High School/first Board/Pre-University Certificate will be taken as authentic. If the high school certificate does not mention the date of birth, provide a suitable document indicating the date of birth along with the application. **Candidates must produce this certificate in original as a proof of their age at the time of counselling**, failing which they will be disqualified.

7.5 Physical Fitness

All qualified candidates will have to submit a Physical Fitness certificate from a Registered Medical Practitioner in the prescribed format that will be made available to them at an appropriate time. They will be admitted only if they are physically fit for pursuing a course of study at the participating institutes.

7.6 Special Requirements for Mining Engineering and Mining Machinery Courses

Candidates opting for these courses should make sure that they do not have any form of colour blindness. They will be required to submit a certificate from a Registered Medical Practitioner to this effect at the time of counselling. The standard of visual acuity with or without glasses will be adhered to strictly for candidates seeking admission to Mining Engineering as per DGMS Circular 14 of 1972. Persons with one-eyed vision are not permitted to work underground. Candidates with above limitations are not allowed to opt for admission to Mining Engineering or Mining Machinery Engineering.

7.7 Female Candidates for Mining Courses

Section 46 (1) of the Mines Act, 1952 states that “No woman shall, notwithstanding anything contained in any other law, be employed (a) in any part of a mine which is below ground, (b) in any mine above ground except between the hours 6 a.m. and 7 p.m.”. Female candidates are not admitted to Mining Engineering and Mining Machinery Engineering at ISMU, Dhanbad, whereas the corresponding programs at IIT Kharagpur and IT-BHU, Varanasi, have no such restriction.

8 CENTRES FOR JEE-2008

The cities/towns having JEE centres are listed in Appendix-I. Requests for a change of centre within a city will not be entertained. However, under exceptional circumstances, a change of centre within the zone or outside the zone may be permitted, if an application with valid reasons for the same is received on or before **March 28, 2008** along with a draft for Rs. 500/- (Rs. 250/- for SC/ST candidates) drawn in favour of “**Chairman, JEE**” of the concerned IIT. The application should be sent to the IIT where the candidate applied originally. In this regard, the decision of the Chairman, JEE-2008 will be final.

9 ADMIT CARD

The Admit Cards for the examination will be sent by Registered Post/Speed Post only to those eligible candidates who have submitted valid Application Forms, complete in all respects, **on or before 17:00 hours on January 4, 2008**. The institutes will not be responsible for any postal delay or irregularity resulting in non-delivery of the Admit Card. **No duplicate Admit Card will be issued.**

The Admit Card will bear the name, photograph, signature, date of birth, address, language of Question Paper, and category of the candidate, along with name and address of the JEE Centre allotted. The candidate should carefully examine the Admit Card received by him/her for all the entries made therein. In case of any discrepancy, the candidate should inform the issuing institute immediately.

If the Admit Card is not received by **March 21, 2008**, the candidate should obtain his/her Registration Number and Examination Centre from the institute of his/her zone through phone (Interactive Voice Response System – IVRS)/Website (Appendix-III). On receiving these data, the candidate should write his/her Name, Application No., Registration No., and Examination Centre on two identical halves of an A4-size paper. He/she should then affix his/her photograph and sign (as done in the Application Form) on each of them. The candidate should get the photographs and the signatures attested by the Head of the institution last attended/gazetted officer/notary public, and meet the IIT Representative with this paper on **April 13, 2008** in the office of the Presiding Officer at the Examination Centre. The candidate must bring the Acknowledgement Card issued to him/her upon receipt of his/her Application Form.

Impersonation is a legally punishable offence. No applicant will normally be permitted to write the examination without a valid Admit Card. The admit card should be presented to the invigilators for verification. The candidate’s identity will be verified with respect to his/her details on the admit card/centre verification record. If the identity is in doubt, the candidate may not be allowed to appear in the examination. The authorities may at their discretion permit the candidate to appear for the examination after completing formalities including taking of thumb impression. No extra time will be allowed for these formalities to be completed.

Since the successful candidates are required to produce the Admit Card at the time of counselling and admission, it should be carefully preserved till the admission through JEE-2008 is completed.

10. MERIT LIST

10.1 Ranking

Only those candidates who attempt both Paper 1 and Paper 2 will be considered for the ranking. Marks in Physics will be equal to marks in Physics section of

Paper 1 + marks in Physics section of Paper 2. Similar procedure will be followed for Chemistry and Mathematics. Based on the cut-off marks in the individual subjects as well as the aggregate marks in the Examination, a common merit list will be prepared without any relaxed criteria. In addition, separate merit lists of candidates belonging to the SC, ST, and PD categories will be prepared with different relaxed norms relevant to their categories. While preparing these merit lists, if a candidate belongs to more than one category of relaxed norms, then he/she for the purpose of ranking shall be considered in all the categories in which he/she qualifies. There will be no separate list of wait-listed candidates.

10.2 Tie-Break

The tie-break criterion adopted for awarding ranks to the candidates who have scored the same aggregate marks is as follows.

For each subject, the mean (i.e., the average) marks will be calculated on the basis of the marks obtained by those candidates who have appeared in both the papers. Among the candidates having the same total marks, a candidate will be ranked higher than the rest, if he/she has scored higher marks in the subject having the lowest mean marks. If there is a tie after this procedure, then the marks obtained by the tied candidates in the subject with the second-lowest mean marks will be considered, and the above procedure repeated. Candidates tied even after this procedure will be given the same rank.

10.3 Extended Merit List

The results of JEE are being used by other institutions for admissions to their courses/programmes. JEE provides an extended merit list to these institutes for the purpose of admission by making some relaxation in the aggregate cut-off. All the candidates who are declared qualified in the extended merit list may apply to these institutes directly for admission or for other details. List of institutes who will be using the extended merit list will be displayed on IIT websites from time to time.

11 VERIFICATION OF IDENTITY AND COUNSELLING

Qualified candidates will be informed by post of their All India Ranks (AIR), and will be called for identity verification in order of their AIR. A candidate can also obtain this information on the website, IVRS, or by calling the JEE office from where he/she

received the admit card, one day after the declaration of the results of JEE-2008. Individual zones will fix their counselling schedule. They will display the counselling schedule on their websites and also inform the qualified candidates by speed post/registered post. In case a qualified candidate does not receive the counselling letter, he/she must still appear for identity verification on any one of the dates specified on the back cover of this brochure, at the institute from where he/she had received the admit card.

The main purpose of asking the qualified candidates to appear in person for the counselling is to verify their identity. **Hence the candidates must bring their admit cards**, and various documents for verifying their identity, age, mark sheet of qualifying examination, and category, **all in original with two photocopies of each**. On failing to establish the authenticity of any of the above documents, the candidate will not be considered for admission. The candidates must also bring a physical fitness certificate from a Registered Medical Practitioner in a format that will be made available to him/her at an appropriate time.

After checking their identity and documents, the candidates will be asked to submit their choice sheets of courses and institutes. The counselling brochure will help the candidates to exercise this option judiciously. Some IIT faculty may also be available for consultation. However, the faculty at any one IIT may not have information about **all** the courses offered by **all** the institutes, and can only provide whatever information is available with them.

After the qualified candidates have exercised their choices as per the counselling schedule (see back cover of this brochure), seat allocation will be done centrally, on a later date on the basis of the AIR-cum-choices exercised by the candidates. There is no provision for instant seat allocation at the time when the candidates submit their choice-sheets.

To take care of possible absentees, the number of qualified candidates is kept more than the number of seats available in the IITs, IT-BHU, Varanasi, and ISMU, Dhanbad. The fact that an applicant has qualified in JEE-2008 and has been called for identity verification and counselling, does not guarantee his/her admission. This will depend upon the applicant's All India Rank, his/her choice of courses/institutes, and the number of seats available.

A counselling brochure detailing various branches of study will be mailed along with the counselling letter, and will also be made available on the website.

Counselling dates for all categories of candidates including those who will qualify for Preparatory Course are provided at the back cover of this brochure.

12 PERFORMANCE IN JEE 2008

The machine gradable optical response sheets (ORS) are graded and scrutinized with extreme care. There is no provision for regrading and retotalling. No photocopies of the machine-gradable sheets will be made available. No correspondence in this regard will be entertained. Performance cards will **not** be sent to the candidates. However, they can view their marks from the IIT websites from **August 01 to August 31, 2008**.

13 SYLLABUS FOR JEE-2008

13.1 Physics

General: Units and dimensions, dimensional analysis; least count, significant figures; Methods of measurement and error analysis for physical quantities pertaining to the following experiments: Experiments based on using Vernier calipers and screw gauge (micrometer), Determination of g using simple pendulum, Young's modulus by Searle's method, Specific heat of a liquid using calorimeter, focal length of a concave mirror and a convex lens using u - v method, Speed of sound using resonance column, Verification of Ohm's law using voltmeter and ammeter, and specific resistance of the material of a wire using meter bridge and post office box.

Mechanics: Kinematics in one and two dimensions (Cartesian coordinates only), projectiles; Uniform Circular motion; Relative velocity.

Newton's laws of motion; Inertial and uniformly accelerated frames of reference; Static and dynamic friction; Kinetic and potential energy; Work and power; Conservation of linear momentum and mechanical energy.

Systems of particles; Centre of mass and its motion; Impulse; Elastic and inelastic collisions.

Law of gravitation; Gravitational potential and field; Acceleration due to gravity; Motion of planets and satellites in circular orbits; Escape velocity.

Rigid body, moment of inertia, parallel and perpendicular axes theorems, moment of inertia of uniform bodies with simple geometrical shapes; Angular momentum; Torque; Conservation of angular momentum; Dynamics of rigid bodies with fixed axis of rotation; Rolling without slipping of rings, cylinders and spheres; Equilibrium of rigid bodies; Collision of point masses with rigid bodies.

Linear and angular simple harmonic motions.

Hooke's law, Young's modulus.

Pressure in a fluid; Pascal's law; Buoyancy; Surface energy and surface tension, capillary rise; Viscosity (Poiseuille's equation excluded), Stoke's law; Terminal velocity, Streamline flow, equation of continuity, Bernoulli's theorem and its applications.

Wave motion (plane waves only), longitudinal and transverse waves, superposition of waves; Progressive and stationary waves; Vibration of strings and air columns; Resonance; Beats; Speed of sound in gases; Doppler effect (in sound).

Thermal physics: Thermal expansion of solids, liquids and gases; Calorimetry, latent heat; Heat conduction in one dimension; Elementary concepts of convection and radiation; Newton's law of cooling; Ideal gas laws; Specific heats (C_v and C_p for monoatomic and diatomic gases); Isothermal and adiabatic processes, bulk modulus of gases; Equivalence of heat and work; First law of thermodynamics and its applications (only for ideal gases); Blackbody radiation: absorptive and emissive powers; Kirchhoff's law; Wien's displacement law, Stefan's law.

Electricity and magnetism: Coulomb's law; Electric field and potential; Electrical potential energy of a system of point charges and of electrical dipoles in a uniform electrostatic field; Electric field lines; Flux of electric field; Gauss's law and its application in simple cases, such as, to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell.

Capacitance; Parallel plate capacitor with and without dielectrics; Capacitors in series and parallel; Energy stored in a capacitor.

Electric current; Ohm's law; Series and parallel arrangements of resistances and cells; Kirchhoff's laws and simple applications; Heating effect of current.

Biot-Savart's law and Ampere's law; Magnetic field near a current-carrying straight wire, along the axis of a circular coil and inside a long straight solenoid; Force on a moving charge and on a current-carrying wire in a uniform magnetic field.

Magnetic moment of a current loop; Effect of a uniform magnetic field on a current loop; Moving coil galvanometer, voltmeter, ammeter and their conversions.

Electromagnetic induction: Faraday's law, Lenz's law; Self and mutual inductance; RC, LR and LC circuits with d.c. and a.c. sources.

Optics: Rectilinear propagation of light; Reflection and refraction at plane and spherical surfaces; Total internal reflection; Deviation and dispersion of light by a prism; Thin lenses; Combinations of mirrors and thin lenses; Magnification.

Wave nature of light: Huygen's principle, interference limited to Young's double-slit experiment.

Modern physics: Atomic nucleus; Alpha, beta and gamma radiations; Law of radioactive decay; Decay constant; Half-life and mean life; Binding energy and its calculation; Fission and fusion processes; Energy calculation in these processes.

Photoelectric effect; Bohr's theory of hydrogen-like atoms; Characteristic and continuous X-rays, Moseley's law; de Broglie wavelength of matter waves.

13.2 Mathematics

Algebra: Algebra of complex numbers, addition, multiplication, conjugation, polar representation, properties of modulus and principal argument, triangle inequality, cube roots of unity, geometric interpretations.

Quadratic equations with real coefficients, relations between roots and coefficients, formation of quadratic equations with given roots, symmetric functions of roots.

Arithmetic, geometric and harmonic progressions, arithmetic, geometric and harmonic means, sums of finite arithmetic and geometric progressions, infinite geometric series, sums of squares and cubes of the first n natural numbers.

Logarithms and their properties.

Permutations and combinations, Binomial theorem for a positive integral index, properties of binomial coefficients.

Matrices as a rectangular array of real numbers, equality of matrices, addition, multiplication by a scalar and product of matrices, transpose of a matrix, determinant of a square matrix of order up to three, inverse of a square matrix of order up to three, properties of these matrix operations, diagonal, symmetric and skew-symmetric matrices and their properties, solutions of simultaneous linear equations in two or three variables.

Addition and multiplication rules of probability, conditional probability, Bayes Theorem, independence of events, computation of probability of events using permutations and combinations.

Trigonometry: Trigonometric functions, their periodicity and graphs, addition and subtraction formulae, formulae involving multiple and sub-multiple angles, general solution of trigonometric equations.

Relations between sides and angles of a triangle, sine rule, cosine rule, half-angle formula and the area of a triangle, inverse trigonometric functions (principal value only).

Analytical geometry:

Two dimensions: Cartesian coordinates, distance between two points, section formulae, shift of origin.

Equation of a straight line in various forms, angle between two lines, distance of a point from a line; Lines through the point of intersection of two given lines, equation of the bisector of the angle between two lines, concurrency of lines; Centroid, orthocentre, incentre and circumcentre of a triangle.

Equation of a circle in various forms, equations of tangent, normal and chord.

Parametric equations of a circle, intersection of a circle with a straight line or a circle, equation of a circle through the points of intersection of two circles and those of a circle and a straight line.

Equations of a parabola, ellipse and hyperbola in standard form, their foci, directrices and eccentricity, parametric equations, equations of tangent and normal.

Locus Problems.

Three dimensions: Direction cosines and direction ratios, equation of a straight line in space, equation of a plane, distance of a point from a plane.

Differential calculus: Real valued functions of a real variable, into, onto and one-to-one functions, sum, difference, product and quotient of two functions, composite functions, absolute value, polynomial, rational, trigonometric, exponential and logarithmic functions.

Limit and continuity of a function, limit and continuity of the sum, difference, product and quotient of two functions, L'Hospital rule of evaluation of limits of functions.

Even and odd functions, inverse of a function, continuity of composite functions, intermediate value property of continuous functions.

Derivative of a function, derivative of the sum, difference, product and quotient of two functions, chain rule, derivatives of polynomial, rational, trigonometric, inverse trigonometric, exponential and logarithmic functions.

Derivatives of implicit functions, derivatives up to order two, geometrical interpretation of the derivative, tangents and normals, increasing and decreasing functions, maximum and minimum values of a function, Rolle's Theorem and Lagrange's Mean Value Theorem.

Integral calculus: Integration as the inverse process of differentiation, indefinite integrals of standard functions, definite integrals and their properties, Fundamental Theorem of Integral Calculus.

Integration by parts, integration by the methods of substitution and partial fractions, application of definite integrals to the determination of areas involving simple curves.

Formation of ordinary differential equations, solution of homogeneous differential equations, separation of variables method, linear first order differential equations.

Vectors: Addition of vectors, scalar multiplication, dot and cross products, scalar triple products and their geometrical interpretations.

13.3 Chemistry

Physical chemistry

General topics: Concept of atoms and molecules; Dalton's atomic theory; Mole concept; Chemical formulae; Balanced chemical equations; Calculations (based on mole concept) involving common oxidation-reduction, neutralisation, and displacement reactions; Concentration in terms of mole fraction, molarity, molality and normality.

Gaseous and liquid states: Absolute scale of temperature, ideal gas equation; Deviation from ideality, van der Waals equation; Kinetic theory of gases, average, root mean square and most probable velocities and their relation with temperature; Law of partial pressures; Vapour pressure; Diffusion of gases.

Atomic structure and chemical bonding: Bohr model, spectrum of hydrogen atom, quantum numbers; Wave-particle duality, de Broglie hypothesis; Uncertainty principle; Qualitative quantum mechanical picture of hydrogen atom, shapes of s, p and d orbitals; Electronic configurations of elements (up to atomic number 36); Aufbau principle; Pauli's exclusion principle and Hund's rule; Orbital overlap and covalent bond; Hybridisation involving s, p and d orbitals only; Orbital energy diagrams for homonuclear diatomic species; Hydrogen bond; Polarity in molecules, dipole moment (qualitative aspects only); VSEPR model and shapes of molecules (linear, angular, triangular, square planar, pyramidal, square pyramidal, trigonal bipyramidal, tetrahedral and octahedral).

Energetics: First law of thermodynamics; Internal energy, work and heat, pressure-volume work; Enthalpy, Hess's law; Heat of reaction, fusion and vapourization; Second law of thermodynamics; Entropy; Free energy; Criterion of spontaneity.

Chemical equilibrium: Law of mass action; Equilibrium constant, Le Chatelier's principle (effect of

concentration, temperature and pressure); Significance of ΔG and ΔG° in chemical equilibrium; Solubility product, common ion effect, pH and buffer solutions; Acids and bases (Bronsted and Lewis concepts); Hydrolysis of salts.

Electrochemistry: Electrochemical cells and cell reactions; Standard electrode potentials; Nernst equation and its relation to DG; Electrochemical series, emf of galvanic cells; Faraday's laws of electrolysis; Electrolytic conductance, specific, equivalent and molar conductivity, Kohlrausch's law; Concentration cells.

Chemical kinetics: Rates of chemical reactions; Order of reactions; Rate constant; First order reactions; Temperature dependence of rate constant (Arrhenius equation).

Solid state: Classification of solids, crystalline state, seven crystal systems (cell parameters a, b, c, α , β , γ), close packed structure of solids (cubic), packing in fcc, bcc and hcp lattices; Nearest neighbours, ionic radii, simple ionic compounds, point defects.

Solutions: Raoult's law; Molecular weight determination from lowering of vapour pressure, elevation of boiling point and depression of freezing point.

Surface chemistry: Elementary concepts of adsorption (excluding adsorption isotherms); Colloids: types, methods of preparation and general properties; Elementary ideas of emulsions, surfactants and micelles (only definitions and examples).

Nuclear chemistry: Radioactivity: isotopes and isobars; Properties of α , β and γ rays; Kinetics of radioactive decay (decay series excluded), carbon dating; Stability of nuclei with respect to proton-neutron ratio; Brief discussion on fission and fusion reactions.

Inorganic Chemistry

Isolation/preparation and properties of the following non-metals: Boron, silicon, nitrogen, phosphorus, oxygen, sulphur and halogens; Properties of allotropes of carbon (only diamond and graphite), phosphorus and sulphur.

Preparation and properties of the following compounds: Oxides, peroxides, hydroxides, carbonates, bicarbonates, chlorides and sulphates of sodium, potassium, magnesium and calcium; Boron: diborane, boric acid and borax; Aluminium: alumina, aluminium chloride and alums; Carbon: oxides and oxyacid (carbonic acid); Silicon: silicones, silicates and silicon carbide; Nitrogen: oxides, oxyacids and ammonia; Phosphorus: oxides, oxyacids (phosphorus acid, phosphoric acid) and phosphine; Oxygen: ozone

and hydrogen peroxide; Sulphur: hydrogen sulphide, oxides, sulphurous acid, sulphuric acid and sodium thiosulphate; Halogens: hydrohalic acids, oxides and oxyacids of chlorine, bleaching powder; Xenon fluorides.

Transition elements (3d series): Definition, general characteristics, oxidation states and their stabilities, colour (excluding the details of electronic transitions) and calculation of spin-only magnetic moment; Coordination compounds: nomenclature of mononuclear coordination compounds, *cis-trans* and ionisation isomerisms, hybridization and geometries of mononuclear coordination compounds (linear, tetrahedral, square planar and octahedral).

Preparation and properties of the following compounds: Oxides and chlorides of tin and lead; Oxides, chlorides and sulphates of Fe^{2+} , Cu^{2+} and Zn^{2+} ; Potassium permanganate, potassium dichromate, silver oxide, silver nitrate, silver thiosulphate.

Ores and minerals: Commonly occurring ores and minerals of iron, copper, tin, lead, magnesium, aluminium, zinc and silver.

Extractive metallurgy: Chemical principles and reactions only (industrial details excluded); Carbon reduction method (iron and tin); Self reduction method (copper and lead); Electrolytic reduction method (magnesium and aluminium); Cyanide process (silver and gold).

Principles of qualitative analysis: Groups I to V (only Ag^+ , Hg^{2+} , Cu^{2+} , Pb^{2+} , Bi^{3+} , Fe^{3+} , Cr^{3+} , Al^{3+} , Ca^{2+} , Ba^{2+} , Zn^{2+} , Mn^{2+} and Mg^{2+}); Nitrate, halides (excluding fluoride), sulphate and sulphide.

Organic Chemistry

Concepts: Hybridisation of carbon; Sigma and pi-bonds; Shapes of simple organic molecules; Structural and geometrical isomerism; Optical isomerism of compounds containing up to two asymmetric centres, (*R,S* and *E,Z* nomenclature excluded); IUPAC nomenclature of simple organic compounds (only hydrocarbons, mono-functional and bi-functional compounds); Conformations of ethane and butane (Newman projections); Resonance and hyperconjugation; Keto-enol tautomerism; Determination of empirical and molecular formulae of simple compounds (only combustion method); Hydrogen bonds: definition and their effects on physical properties of alcohols and carboxylic acids; Inductive and resonance effects on acidity and basicity of organic acids and bases; Polarity and inductive effects in alkyl halides; Reactive intermediates produced during homolytic and heterolytic bond cleavage; Formation, structure and stability of carbocations, carbanions and free radicals.

Preparation, properties and reactions of alkanes: Homologous series, physical properties of alkanes

(melting points, boiling points and density); Combustion and halogenation of alkanes; Preparation of alkanes by Wurtz reaction and decarboxylation reactions.

Preparation, properties and reactions of alkenes and alkynes: Physical properties of alkenes and alkynes (boiling points, density and dipole moments); Acidity of alkynes; Acid catalysed hydration of alkenes and alkynes (excluding the stereochemistry of addition and elimination); Reactions of alkenes with KMnO_4 and ozone; Reduction of alkenes and alkynes; Preparation of alkenes and alkynes by elimination reactions; Electrophilic addition reactions of alkenes with X_2 , HX , HOX and H_2O (X =halogen); Addition reactions of alkynes; Metal acetylides.

Reactions of benzene: Structure and aromaticity; Electrophilic substitution reactions: halogenation, nitration, sulphonation, Friedel-Crafts alkylation and acylation; Effect of *o*-, *m*- and *p*-directing groups in monosubstituted benzenes.

Phenols: Acidity, electrophilic substitution reactions (halogenation, nitration and sulphonation); Reimer-Tieman reaction, Kolbe reaction.

Characteristic reactions of the following (including those mentioned above): Alkyl halides: rearrangement reactions of alkyl carbocation, Grignard reactions, nucleophilic substitution reactions; Alcohols: esterification, dehydration and oxidation, reaction with sodium, phosphorus halides, $\text{ZnCl}_2/\text{concentrated HCl}$, conversion of alcohols into aldehydes and ketones; Ethers: Preparation by Williamson's Synthesis; Aldehydes and Ketones: oxidation, reduction, oxime and hydrazone formation; aldol condensation, Perkin reaction; Cannizzaro reaction; haloform reaction and nucleophilic addition reactions (Grignard addition); Carboxylic acids: formation of esters, acid chlorides and amides, ester hydrolysis; Amines: basicity of substituted anilines and aliphatic amines, preparation from nitro compounds, reaction with nitrous acid, azo coupling reaction of diazonium salts of aromatic amines, Sandmeyer and related reactions of diazonium salts; carbylamine reaction; Haloarenes: nucleophilic aromatic substitution in haloarenes and substituted haloarenes (excluding Benzyne mechanism and Cine substitution).

Carbohydrates: Classification; mono- and disaccharides (glucose and sucrose); Oxidation, reduction, glycoside formation and hydrolysis of sucrose.

Amino acids and peptides: General structure (only primary structure for peptides) and physical properties.

Properties and uses of some important polymers: Natural rubber, cellulose, nylon, teflon and PVC.

Practical organic chemistry: Detection of elements (N, S, halogens); Detection and identification of the following functional groups: hydroxyl (alcoholic and phenolic),

carbonyl (aldehyde and ketone), carboxyl, amino and nitro; Chemical methods of separation of mono-functional organic compounds from binary mixtures.

14 SYLLABUS FOR APTITUDE TEST FOR B.Arch. and B. Des. PROGRAMMES

Freehand drawing: This would comprise of simple drawing depicting the total object in its right form and proportion, surface texture, relative location and details of its component parts in appropriate scale. Common domestic or day-to-day life usable objects like furniture, equipment, etc., from memory.

Geometrical drawing: Exercises in geometrical drawing containing lines, angles, triangles, quadrilaterals, polygons, circles etc. Study of plan (top view), elevation (front or side views) of simple solid objects like prisms, cones, cylinders, cubes, splayed surface holders etc.

Three-dimensional perception: Understanding and appreciation of three-dimensional forms with building elements, colour, volume and orientation. Visualization through structuring objects in memory.

Imagination and aesthetic sensitivity: Composition exercise with given elements. Context mapping. Creativity check through innovative uncommon test with familiar objects. Sense of colour grouping or application.

Architectural awareness: General interest and awareness of famous architectural creations – both national and international, places and personalities (architects, designers etc.) in the related domain.

Candidates are advised to bring geometry box sets, pencils, erasers and colour pencils or crayons for the Aptitude Test.

15 INSTRUCTIONS FOR COMPLETING THE JEE-2008 APPLICATION FORM

Notes:

- Please note down the seven-digit application number for future reference. Read the instructions carefully before filling the application form. Refer to the sample of a filled-in application form on the next two pages. Note especially the right method to darken the bubbles with HB pencil as shown in the application form.
- First, write in black ink (**using capital letters**) the required information in the boxes (wherever provided). Then darken the appropriate bubble corresponding to the alphabet/numeral underneath each box with **HB pencil**. What you write in these boxes is only for your guidance and

for verification that you are darkening the bubble corresponding to the correct alphabet/numeral.

- A machine will process the application form. The machine picks up only dark pencil marks. Therefore, darken the alphabet/numeral uniformly **using HB pencil only**. Please see the filled-in sample application form (page 16 and 17) to learn how to darken the bubbles.
- If you wish to change a marking, completely erase the darkened bubble, and then darken the appropriate bubble.
- Do not scribble, smudge, cut, tear, or wrinkle the application form. Do not put any stray pencil marks anywhere on the application form.**
- Do not write or place any mark over the barcodes.**
- Your photograph, signature, and address are to be scanned by a machine that recognizes only good quality images, from specified areas of the form. Therefore, **paste a good quality colour photograph (wear dark coloured garments) with white background, taken not more than two months earlier**. Write your address and sign in **black ink only**.
- Please note that **your name, your parent's / guardian's name, and your date of birth should exactly be the same as given in your High school or first Board/Pre-University examination certificate**. Any deviation, whenever discovered, may lead to cancellation of your candidature.
- Your application must be complete in all aspects. **Incomplete applications and applications filled in a language other than English will be summarily rejected.**
- Options filled by you in the application form cannot be changed at a later stage.

Item 1. Name of the Candidate

Write your name in capital letters as given in your Class-X certificate of the High School or your first Board/Pre-University Examination. Write a single letter in a box. **Leave one, and only one, blank box between consecutive words of your name.** If your name has several initials, leave one blank after each of them. If your name requires more than 34 boxes, darken the bubble marked * in the 35th column of the first row. Darken the appropriate bubble underneath each letter of the name.

Item 2. Category

Write your category in the space provided. Darken the appropriate bubble corresponding to your category (GE, SC, ST or OBC). Category once declared cannot be changed at a later date. The codes for different categories are as follows.

Category	Code
• General	GE
• Scheduled Caste	SC
• Scheduled Tribe	ST
• Other Backward Classes	OBC

Note:

Until the Government of India orders are received, OBC category candidates will be treated as general category candidates.

Item 3. Sub-category

If you also belong to PD (as explained in section 5.2) and/or DS (as explained in section 6) category, darken the appropriate bubble(s). If you do not belong to either PD or DS category, please do not darken any of the bubbles.

Item 4. Prior Admission to IITs, IT-BHU, Varanasi, and ISMU, Dhanbad

If you have previously qualified in JEE and taken admission at any IIT, IT-BHU, Varanasi, or ISMU, Dhanbad, by paying the full fees, darken the bubble marked 'yes'. Otherwise darken the bubble marked 'no'.

Item 5. Gender

Darken the appropriate bubble.

Item 6. Nationality

Darken the appropriate bubble. Candidates holding either PIO (Person of Indian Origin) or OCI (Overseas Citizen of India) cards, should darken the bubble corresponding to 'foreign'.

Item 7. Question Paper Language

Question Papers will be provided to a candidate in either Hindi or English, according to his/her choice. This choice, once exercised, cannot be changed at any later stage. Darken the bubble corresponding to HINDI or ENGLISH, depending on whether you want the Question Papers in Hindi or ENGLISH respectively. If no option is exercised, Question Papers only in English will be provided.

Item 8. Date of Birth

Enter the date, month, and year of your birth as per the English calendar and as recorded in your class-X or

equivalent examination certificate. Use numerals 01 to 31 for DATE, abbreviations JAN, FEB, etc., for MONTH, and the last two digits of the YEAR of birth. For example, if you were born on 6th March 1985, then the date should be entered as follows: 06 MAR 85. Darken the appropriate bubbles for the date, month, and year in each column.

Item 9. PINCODE of Permanent Place of Residence

Write PINCODE number in the space provided. Darken the bubble corresponding to the appropriate numeral underneath each digit.

Item 10. Choice of Examination Centres

Appendix-I gives the list of the cities/towns where centres for the examination will be located. Select two different city codes from the **same zone**. Your first preference must be entered under choice-I and the second under choice-II. Then darken the bubble corresponding to the appropriate numeral in each column (refer to the sample form).

A JEE centre may be discontinued owing to poor response, operational difficulties or any other reason. Candidates may not necessarily be allotted a particular city/town as JEE centre of their choice.

Item 11. Year of Passing 10th Class or Equivalent Examination

Indicate year of passing in 10th Class or equivalent examination and darken the bubbles corresponding to the appropriate numerals.

Item 12. Percentage of Marks in 10th Class or Equivalent Examination

Write the actual percentage of aggregate marks obtained in 10th Class or equivalent examination, if it is a board examination. Otherwise leave it blank. Write only the integer part of the percentage of marks. For example, 65.89 or 65.3 should be written as 65. Darken the bubble corresponding to the appropriate numeral underneath each entry.

Item 13. Year of Qualifying Examination

Those candidates who have passed 10+2 or an equivalent qualifying examination in 2007, satisfying the eligibility criteria (detailed in section 7.2), should darken the appropriate bubble.

Those who are appearing for their 10+2 or an equivalent qualifying examination in 2008, should darken the appropriate bubble.

Item 14. Percentage of Marks in Qualifying Examination

Write the actual percentage of aggregate marks obtained in the 10+2 or equivalent qualifying examination, if the results are available. Otherwise leave it blank.

Write only the integer part of the percentage of marks. For example, 89.99 or 89.2 should be written as 89. Darken the bubble corresponding to the appropriate numeral underneath each entry.

Item 15. Complete Mailing Address

Write the complete postal address to which any communication is to be sent from **December 2007 to July 2008**. The address must include your name, phone number, c/o name (if required), and other details, including the PINCODE. Indicate mobile number/land-line number with the STD code, and e-mail address. Please note that this block will be machine scanned, and, therefore, it should be written very clearly in **black ink** only. Your address must not overflow this box.

Item 16. Photograph

Please write your name and application number on the reverse side of a recent good quality **colour** photograph and paste (**do not staple**) in the box provided. Photograph should be taken with white background preferably in dark-coloured clothes. The approximate size of the photograph should be 3.5 cm x 4.5 cm (taken not more than two months earlier). It is expected that the candidate will have the same appearance at the time of examination and counselling as in this photograph. In case your appearance changes, you are required to bring two new photographs at the time of examination. Do not sign on the photograph and do not get it attested.

Note: Photograph must not be larger than the space provided in the box for pasting it. Stamp sized or black and white photographs are not acceptable.

Item 17. Signature

Put your usual **signature in black ink** within the box provided. Your signature must not overflow or touch the border of the box provided. Your signature establishes your identity. **Hence, do not merely write your name in capital letters. This may lead to rejection of your application.**

Item 18. Name of one Parent/Guardian

Write the name of one parent or guardian exactly as in your 10th class or equivalent certificate. Write the name

of your father if no name is given in the 10th class certificate. Write a single letter in each box. **Leave one and only one blank box between consecutive words of the name.** Darken the bubble corresponding to the appropriate alphabet underneath each letter of the name. If the name has several initials, leave one blank after each of them. If the name of the parent/guardian requires more than 34 boxes, darken the bubble marked * in the 35th column of the first row.

Item 19. Relationship

Indicate your relationship with the parent/guardian named in item 18 by darkening the appropriate bubble.

Item 20. Board of Qualifying Examination

Darken the appropriate bubble.

Item 21. Attempt at JEE

Darken the appropriate bubble.

Item 22. Type of Preparation

If you are preparing for JEE-2008 essentially on your own, darken the bubble against SELF-STUDY. Else, darken the OTHER bubble.

Item 23. Counselling

Verification of records, etc., will be done during counselling in respective zonal IITs, from where the candidate received his/her admit card for JEE-2008. In addition, counselling will also be held at IT-BHU for Roorkee zone candidates only, and at ISMU, Dhanbad, for Kharagpur Zone candidates only. The candidates in Roorkee and Kharagpur zones, who would like to be counselled at these institutions, should darken the appropriate bubble. **All others (including candidates from the Roorkee and Kharagpur zones), who would like to be counselled at the respective IITs, should leave this space blank.**

Item 24. Place of Schooling for Class 10th or equivalent

Darken the appropriate bubble.

Item 25. PINCODE of Address for Communication

Write the PINCODE number in the space provided. Darken the bubble corresponding to the appropriate numeral underneath each digit.

Item 26. Mobile/Phone Number

Write your phone number with STD code or mobile phone number, if there is any, on which you can be contacted or a message can be left for you. Darken the bubbles corresponding to the appropriate numerals below the phone/mobile number.

Item 27. Mother Tongue

Use the language codes as given below to darken the bubbles corresponding to the appropriate numerals in this item.

Assamese	01	Bengali	02	English	03
Gujarati	04	Hindi	05	Kannada	06
Kashmiri	07	Malayalam	08	Marathi	09
Oriya	10	Punjabi	11	Sanskrit	12
Sindhi	13	Tamil	14	Telugu	15
Urdu	16	Others	17		

Item 28. Parents' Educational Background

Darken the appropriate bubble.

Item 29. Parent's/Guardian's Occupation

Darken the appropriate bubble.

Item 30. Parents'/Guardian's Total Annual Income

Darken the appropriate bubble. In case both parents are employed, the combined annual income is to be indicated.

Item 31. Declaration by the Candidate

The candidate must sign the declaration. The place and date should also be entered. The two signatures, the one below this declaration and the one in the box below your photograph, should be identical. Applications without signatures or with different signatures at the two places will be treated as **incomplete and rejected**. The declaration by the candidate must be countersigned by Parent/Guardian. Write the name of Parent/Guardian in the space provided.

16 OTHER INFORMATION RELATED TO APPLICATION FORM**16.1 Acknowledgement Card**

One printed acknowledgement card is enclosed with

each application form. Write your application number in the space provided. Also write your name and complete postal address in **CAPITAL LETTERS** with the PINCODE in the appropriate place. The institute that receives your completed application will post the Acknowledgement Card on receipt of your application. Discrepancies in your application, if any, will be indicated on the Acknowledgement Card at appropriate place. **Do not staple the Acknowledgement Card with the application form. Do not affix any postage stamp.**

16.2 10th Class or Equivalent Examination Pass Certificates

Enclose a duly attested copy of your 10th Class, or Equivalent Examination Pass Certificate along with the Application Form. **Do not staple them with the Application Form.**

16.3 Where and How to Send Your Completed Application Form

Duly completed Application Form should be refolded only along the original fold and inserted in the envelope supplied. **You should not staple or paste together the Application Form, the attested copy of the 10th Class Pass, or Equivalent Examination Certificate, and the Acknowledgement Card.**

Please refer to Appendix-I carefully to identify the appropriate institute to which you should send your completed application. It should be sent to the IIT located in the zone where you wish to appear for the examination (irrespective of the institute from where you have obtained the application form).

For example, if your choices for the examination centres are Faridabad and Shimla, then you should send your completed Application Form, with the necessary documents, to the Indian Institute of Technology, Delhi. **Please note that both of your choices of examination centres must belong to the same IIT zone.**

The envelope containing the Application Form and the Acknowledgement Card must be sent by **Registered Post/Speed Post only**. You are advised not to send your application through any private courier service. You may also submit your completed application in person at the JEE office of the IIT concerned.

You are advised to see the checklist given on inside front cover of this brochure before mailing the application. The addresses of the IITs are given on the back cover of this brochure.

The allotment of the institute and the course that may ultimately be offered to you is in no way influenced by your choice of examination centres and the IIT zone. It depends only on your All India Rank (AIR) and on the choices of courses and institutes exercised by you at the time of counselling.

16.4 Deadline for Receipt of the Completed Application Form

The last date for receipt of the completed application at the IITs is **17:00 hours on January 4, 2008**. Any application received after this date will not be accepted. Any delay in receiving the application material by the candidate will not be considered as a valid reason for the late submission of the completed application after the deadline. **The institute will not accept responsibility for any postal delay or irregularity or loss during postal transit.**

16.5 Proof of Sending the Completed Application

No claim of submission of the application will be

entertained unless the Acknowledgement Card supports it. No correspondence with regard to the application, eligibility, and Admit Card will be entertained unless the application number is quoted. If the Acknowledgement Card does not reach you by **January 28, 2008**, you must check with the JEE Office, where your application was sent to. Telephone numbers are given on the back cover of this brochure. (Refer to Appendix-III)

17 Fee Structure

The present fee structure (in Indian rupees) of different institutes is given in the tables below as a guideline, however, the exact fee structure would be provided at the time of counselling. The tuition fee per semester for foreign students is USD 2000 (non-SAARC countries)/USD 1000 (SAARC countries). Students who have PIO (Person of Indian Origin) and OCI (Overseas Citizen of India) status would be treated at par with Indian students so far as fee structure is concerned.

INDIAN INSTITUTES OF TECHNOLOGY							
	Bombay	Delhi	Guwahati	Kanpur	Kharagpur	Madras	Roorkee
One time payment	1525	2500	2150	2150	2300	1750	1790
Payable every semester	17950	15535	16650	19392	15600	16650	20750
Refundable caution deposit	3000	4000	4000	4000	4000	2000	4000
Medical insurance premium	126				696	468	280
Total fees payable at the time of admission	22601	22035	22800	25542	22596	20868	26820

	IT-BHU, Varanasi	ISMU, Dhanbad
One time payment	3325	4200
Payable every odd semester	13910	19550
Payable every even semester	13910	17000
Refundable caution deposit	4000	5000
Total fees payable at the time of admission	21235	28750

APPENDIX-I

List of Cities / Towns of JEE-2008 Centres

IIT BOMBAY ZONE		HIMACHAL PRADESH		IIT MADRAS ZONE	
State/City/Town	Code	State/City/Town	Code	State/City/Town	Code
GOA		JAMMU & KASHMIR		ANDHRA PRADESH	
Panaji	101	Jammu	209	Guntur	601
GUJARAT		MADHYA PRADESH		Hyderabad	602
Ahmedabad	102	Gwalior	210	Nellore	603
Rajkot	103	PUNJAB		Tirupathi	604
Surat	104	Amritsar	211	Vijayawada	605
Vadodara	105	Bhatinda	212	Visakhapatnam	606
KARNATAKA		Jalandhar	213	Warangal	607
Belgaum	106	Ludhiana	214	KARNATAKA	
MADHYA PRADESH		Patiala	215	Bangalore	608
Bhopal	107	UTTAR PRADESH		Mangalore	609
Indore	108	Agra	216	Mysore	610
Jabalpur	109	Gautam Budh Nagar	217	KERALA	
Ujjain	110	(Noida)		Kochi	611
MAHARASHTRA		Ghaziabad	218	Kozhikode	612
Aurangabad	111	Mathura	219	Thiruvananthapuram	613
Latur	112	IIT GUWAHATI ZONE		Trisoor	614
Mumbai (Central)	113	State/City/Town	Code	PUDUCHERRY	
Mumbai (North East)	114	ARUNACHAL PRADESH		Puducherry	615
Mumbai (North West)	115	Itanagar	301	TAMIL NADU	
Mumbai (South)	116	ASSAM		Chennai	616
Mumbai (West)	117	Dibrugarh	302	Coimbatore	617
Nagpur	118	Guwahati	303	Madurai	618
Nashik	119	Silchar	304	Salem	619
Navi Mumbai	120	BIHAR		Tiruchirapalli	620
Pune	121	Bhagalpur	305	Tirunelveli	621
Thane	122	Katihar	306	IIT ROORKEE ZONE	
RAJASTHAN		Patna	307	State/City/Town	Code
Ajmer	123	MANIPUR		CHANDIGARH	
Bikaner	124	Imphal	308	Chandigarh	701
Jaipur	125	MEGHALAYA		HARYANA	
Jodhpur	126	Shillong	309	Ambala	702
Kota	127	WEST BENGAL		Kurukshetra	703
Udaipur	128	Siliguri	310	Panipat	704
IIT DELHI ZONE		IIT KANPUR ZONE		Rohtak	705
State/City/Town	Code	State/City/Town	Code	UTTARAKHAND	
DELHI		UTTAR PRADESH		Dehradun	706
Delhi (East)	201	Allahabad	401	Roorkee	707
Delhi (West)	202	Gorakhpur	402	UTTAR PRADESH	
Delhi (North)	203	UTTARAKHAND		Aligarh	708
Delhi (South)	204	Jhansi	403	Bareilly	709
Delhi (Central)	205	Kanpur (East)	404	Meerut	710
HARYANA		Kanpur (West)	405	Moradabad	711
Faridabad	206	Lucknow	406	Saharanpur	712
Gurgaon	207	Raibareli	407	Varanasi	713
		ANDAMAN AND NICOBAR ISLANDS			
		Port Blair	501		
		BIHAR			
		Gaya	502		
		Muzaffarpur	503		
		CHATTISGARH			
		Bhilai	504		
		Bilaspur	505		
		Raipur	506		
		JHARKHAND			
		Bokaro	507		
		Dhanbad	508		
		Jamshedpur	509		
		Ranchi	510		
		ORISSA			
		Balasore	511		
		Berhampur	512		
		Bhubaneswar	513		
		Cuttack	514		
		Rourkela	515		
		Sambalpur	516		
		SIKKIM			
		Gangtok	517		
		TRIPURA			
		Agartala	518		
		WEST BENGAL			
		Asansol	519		
		Belur	520		
		Durgapur	521		
		Kharagpur	522		
		Kolkata (North)	523		
		Kolkata (Salt Lake)	524		
		Kolkata (South)	525		
		Malda	526		

APPENDIX-II

Format for SC/ST Certificate and the Authorities Who May Issue Caste/Tribe Certificate

1. This is to certify that Shri/ Shrimati/ Kumari* _____ son/daughter* of _____ of Village/Town* _____ District/Division* _____ of State/Union Territory* _____ belongs to the _____ Scheduled Caste / Scheduled Tribe* under :-

* The Constitution (Scheduled Castes) Order, 1950

* The Constitution (Scheduled Tribes) Order, 1950

*** The Constitution (Scheduled Castes) (Union Territories) Order, 1951**

* The Constitution (Scheduled Tribes) (Union Territories) Order, 1951

[As amended by the Scheduled Castes and Scheduled Tribes Lists (Modification Order) 1956, the Bombay Reorganisation Act, 1960, the Punjab Reorganisation Act, 1966, the State of Himachal Pradesh Act, 1970, the North Eastern Areas (Reorganisation) Act, 1971, the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 1976 and the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 2002]

* The Constitution (Jammu and Kashmir) Scheduled Castes Order, 1956;

* The Constitution (Andaman and Nicobar Islands) Scheduled Tribes Order, 1959, as amended by the Scheduled Castes and Scheduled Tribes Order (Amendment) Act, 1976;

* The Constitution (Dadara and Nagar Haveli) Scheduled Castes Order, 1962;

* The Constitution (Dadara and Nagar Haveli) Scheduled Tribes Order, 1962;

* The Constitution (Pondicherry) Scheduled Castes Order, 1964;

* The Constitution (Uttar Pradesh) Scheduled Tribes Order, 1967;

* The Constitution (Goa, Daman and Diu) Scheduled Castes Order, 1968;

* The Constitution (Goa, Daman and Diu) Scheduled Tribes Order, 1968;

* The Constitution (Nagaland) Scheduled Tribes Order, 1970;

* The Constitution (Sikkim) Scheduled Castes Order, 1978;

* The Constitution (Sikkim) Scheduled Tribes Order, 1978;

* The Constitution (Jammu and Kashmir) Scheduled Tribes Order, 1989;

* The Constitution (Scheduled Castes) Order (Amendment) Act, 1990;

* The Constitution (Scheduled Tribes) Order (Amendment) Act, 1991;

* The Constitution (Scheduled Tribes) Order (Second Amendment) Act, 1991;

2. This certificate is issued on the basis of the Scheduled Castes / Scheduled Tribes* Certificate issued to Shri / Shrimati* _____ father/mother* of Shri /Shrimati /Kumari* _____ of Village/Town* _____ in District/ Division* _____ of the State State/Union Territory* _____ who belong to the Caste / Tribe* which is recognised as a Scheduled Caste/ Scheduled Tribe* in the State / Union Territory* _____ issued by the _____ dated _____.

3. Shri/ Shrimati/ Kumari * _____ and / or* his / her* family ordinarily reside(s)** in Village/Town* _____ of _____ District/Division* of the State Union Territory* of _____.

Signature: _____

Designation _____

(with seal of the Office)

Place: _____ State/Union Territory _____

Date: _____

* Please delete the word(s) which are not applicable.

IMPORTANT NOTES

1. The term "ordinarily reside(s)***" used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
2. Officers competent to issue Caste/Tribe certificates:
 - (i) District Magistrate / Additional District Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / Ist Class Stipendiary Magistrate / City Magistrate / Sub-Divisional Magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner.
 - (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
 - (iii) Revenue Officers not below the rank of Tehsildar.
 - (iv) Sub-divisional Officer of the area where the candidate and/ or his family normally reside(s).
 - (v) Administrator / Secretary to Administrator / Development Officer (Lakshdweep Island).
3. Certificate issued by any other authority will be rejected.

APPENDIX–III

Websites & IVRS (Interactive Voice Response System) for JEE-2008

Institute	Websites	IVRS	
		STD Code	Number
IIT Bombay	http://www.jee.iitb.ac.in	022	2576 7062
IIT Delhi	http://www.jee.iitd.ac.in	011	2658 1064 2658 2002
IIT Guwahati	http://www.iitg.ac.in/jee	0361	269 2788
IIT Kanpur	http://www.iitk.ac.in/jee	0512	259 7236
IIT Kharagpur	http://www.iitkgp.ernet.in/jee	03222	28 1881 27 8241
IIT Madras	http://jee.iitm.ac.in	044	2257 8223
IIT Roorkee	http://www.iitr.ac.in/jee	01332	27 9806

APPENDIX–IV

Websites of IT-BHU, Varanasi, & ISMU, Dhanbad

Institute	Websites
IT-BHU, Varanasi	http://www.itbhu.ac.in
ISMU, Dhanbad	http://www.ismdhanbad.ac.in

IMPORTANT DATES

● Last date for receipt of completed JEE Application Form at the JEE Office	Friday	January 4, 2008
● Joint Entrance Examination	Sunday	April 13, 2008
● Declaration of Results	Friday	May 30, 2008
● Medical Examination and Counselling for Qualified PD Candidates at IIT Delhi	Tuesday	June 17, 2008
● Counselling	SC/ ST Candidates GE/DS Candidates (Counselling schedule will be announced by the respective IITs in their websites) Preparatory Course	Wednesday June 18, 2008
		Wednesday-Saturday June 18- June 21, 2008
		Monday July 07, 2008
● Architecture/ Design Aptitude Test	Saturday	June 21, 2008
● Website release of Course Allocation	Monday	June 30, 2008

ADDRESSES FOR SENDING THE COMPLETED APPLICATION FORM

Candidate should send the completed application form to the particular Institute located in the zone where he/she wishes to appear for JEE 2008.

Zone	Address	Phone
IIT Bombay	Chairman, JEE, IIT Bombay, Powai Mumbai 400 076	(022) 2576 4063
IIT Delhi	Chairman, JEE, IIT Delhi, Hauz Khas New Delhi 110016	(011) 2659 1785
IIT Guwahati	Chairman, JEE, IIT Guwahati Guwahati 781 039	(0361) 2692795
IIT Kanpur	Chairman, JEE, IIT Kanpur Kanpur 208 016	(0512) 259 7335
IIT Kharagpur	Chairman, JEE, IIT Kharagpur Kharagpur 721302	(03222) 28 2102
IIT Madras	Chairman, JEE, IIT Madras Chennai 600 036	(044) 2257 8220
IIT Roorkee	Chairman, JEE, IIT Roorkee Roorkee 247667	(01332) 28 4272

For all enquiries, candidates may use the Website or the Phone with IVRS facility of the IIT concerned. The required Website Addresses and Phone Numbers with IVRS facility are given in APPENDIX-III.

COST OF APPLICATION MATERIAL

SC/ST Candidates	:	Rs. 500/-
All Female Candidates:		Rs. 500/-
All Other Candidates	:	Rs. 1000/-

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