

Entrance Examinations in India: A Number Game

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Abstract

In the year 2001—02, the number of colleges for professional education stood at 2409 and is on the rise. With so many colleges catering to professional courses, what is the number of entrance examinations that a high school pass out needs to clear to enter into the field of engineering and medicine? How wide is the choice of entrances and what are the constraints? This paper takes a peek into the above questions, trying to arrive at a figure of the number of entrances in engineering and medicine and its implications.

Introduction

Education is not the filling of a pail, but the lighting of a fire.

-William Butler Yeats

The first embers of this fire are lit in a school--a trek from kindergarten to high school, where one learns about the fundamentals governing our lives; from values such as 'honesty is the best policy' to ethics and morality in business and environment, from the water cycle to protons and neutrons, from counting ones and twos to calculus.

It is while traversing this path that students learn to reason and question, leading to inquisitiveness in the young minds with dreams of making it big in the world. It is this inquisitiveness that is nurtured by colleges and universities--institutions of higher education. These institutions churn out the doctors, the economists, the astronauts, the businessmen, the lawyers and likes.

The transition phase—from high school to college—sees students appearing for entrances in various professional courses, the most popular being engineering and medicine.

This paper will try to arrive at a figure that will tell us the number of entrances a high school pass out can take in the above—mentioned fields and also the eligibility criteria which involves state reservations and other constraints.

Higher Education System In India

Higher Education in India has evolved in divergent and distinct streams with each stream monitored by an apex body, indirectly controlled by the Ministry of Human Resource Development. The Department of Secondary & Higher Education, Ministry of Human Resource Development, is responsible for policy directives and implementation of various programmes of national importance. The state governments mostly fund the universities. However, there are 12 universities called Central universities, which are maintained by the Union Government and because of relatively large funding, they have an economic edge over the others.

The University Grants Commission (UGC) is the apex organisation for the coordination, determination and maintenance of standards of University education in the country.

The engineering colleges and business schools in the country are monitored and accredited by the All India Council for Technical Education (AICTE) while medical colleges are monitored and accredited by the Medical Council of India (MCI).¹

¹ Accessed at www.academics-india.com on 13 June 2004.

Engineering

The AICTE, set up under an Act of Parliament, is the statutory body of the Government of India to grant approval to technical/professional programmes of study in diploma, undergraduate and postgraduate degree level in the field of Engineering and Technology.

Entrance examinations for gaining admission to undergraduate level engineering can be classified into three categories:

- All India Engineering Entrance Examination (AIEEE)
- IIT—JEE (Joint Entrance Examination)
- Engineering Entrance Test of Different States

All India Engineering Entrance Examination (AIEEE)

CBSE, Department of Secondary and Higher Education, Ministry of Human Resource Development conduct an All-India Engineering Entrance Examination (AIEEE) in compliance with the directives of the Government of India, for admission to degree level courses in Engineering in—

- 14 National Institutes of technology
- 2 Regional Engineering Colleges (RECs)
- 3 IIITs and IIITMs
- 14 deemed Universities
- 6 Institutions in the States/Uts
- 4 other institutions, of which 3 are in Chandigarh and 1 in Ranchi

IIT—JEE

Indian Institutes of Technology (IITs) are the most prestigious Engineering institutions in India. They were established with the sole purpose of providing international standards of excellence in engineering education. JEE is the Admission Test conducted by the IITs. There are seven IITs in total in India.

Engineering Entrance Test of Different States

Each state in India holds a Common Entrance Test (CET) or Joint Entrance Examination (JEE). Students from all parts of the country can sit for most state CETs. However, certain domicile restrictions are made which give preference to students from within the state.

Domicile Restrictions have two main conditions:

- Resident of the state: Candidates residing in the state for 10 years or more
- Students of the state: Candidates who have passed the qualifying examination from the state/ should have studied continuously within the state for 3—5 years preceding the qualifying exam (depends from state to state)

Andhra Pradesh

Andhra Pradesh State Level Engineering, Agricultural & Medical Common Entrance Test (EAMCET) is conducted by one of the state University for admission to BE/ BArch/ BTech (Agri/ Engg/Dairy Tech) courses in all engineering and medical colleges (including private as well as minority institutions) in Andhra Pradesh affiliated to the Universities namely – Acharya N G Ranga Agricultural, Andhra Jawaharlal Nehru Technological University, Kakatiya, Nagarjuna, Osmania, Sri Krishnadevaraya, Sri Venkateswara; and Regional Engineering Colleges.

Admission is open to residents of the State of Andhra Pradesh. Following categories of candidates are considered eligible:

- (a) study in state educational institutions for 4/7 consecutive academic years (b) resident in

local area for 4/7 years immediately preceding the date of commencement of qualifying exam or candidates who have resided in the state for 10 years or candidates whose parents have resided in the state for 10 years or candidates whose parents/who are spouses of those in the employment of the state/central govt./public sector corporations/local bodies/universities within the state.

Arunachal Pradesh

The North-East Regional Institute of Science and Technology (NERIST) conducts Arunachal Pradesh Entrance Examination for engineering.

70% of the seats in the base module are reserved for the candidates of Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura as States quota. i.e 10% to each NE state. The remaining 30% of seats are filled up on merit basis through an open competition for whole of India including North East students.

Assam

A Joint Admission Test (JAT) is conducted by the director of technical education, Assam for selection of candidates for admission to the first year of the B.E course to the two state Government colleges i.e Assam Engineering College, Guwahati; Jorhat Engineering College, Jorhat and National Institute of Technology, Silchar (Assam quota). Candidates seeking admission in any National Institute of Technology (against Assam quota) have to apply separately to Principle, National Institute of Technology, Silchar, in addition to appearing in JAT.

Admission is open to permanent residents of Assam except Government of India/State nominees; sons and daughters of Central Govt./Public Sector Undertakings employees posted in Assam and serving in the State for one year (7 seats).

Bihar

Bihar Combined Entrance Competitive Examination (BCECE) is conducted for admission in undergraduate engineering courses in 9 colleges in Bihar. Admission is open to residents of Bihar i.e. Bihar natives/domiciled/refugees.

Residents: Person who are permanent residents of Bihar or who have resided within the territorial jurisdiction of the State for at least one year prior to the date of his application.

Chandigarh

Common Entrance Test (CET) is conducted by Punjab University for admission to BE/B Tech/BArch courses in its Colleges/Department of Chemical Engineering & Technology; Punjab Engineering College.

While 60% of seats are reserved for students from Chandigarh, 40% is offered to students on an All India basis.

Delhi

A combined entrance Examination (CEE) is held by the Delhi University every year for admission to DCE and NSIT. 85% of the seats are reserved for students from Delhi while 15% are open to students from outside Delhi, which includes NRI students.

Goa

Centralised admission process has been framed for admission to BE courses in (I) Goa College of Engineering, Goa; (ii) Padre Conceicao College of Engineering, Verna.

Admission is open to only residents of Goa, they being candidates who must have resided in the State of Goa continuously for 10 years (5 years for those whose either of the parents/grand parents are born in Goa).

Gujarat

State level admission committee constituted by Directorate of Technical Education, Gujarat State, decides admission in the Government, University and Private Engineering Colleges in the State affiliated to the Universities of Bhavnagar, Gujarat, MS Baroda, North Gujarat, Sardar Patel, Saurashtra and South Gujarat.

Admission is open to all candidates who have passed qualifying exam from Gujarat State which takes place in the month of June.

Haryana

A Common Engineering Entrance Test (CEET) for admission to 4 year B.E/B.Tech. course at the Government and Private Engineering Colleges in Haryana is conducted by National Institute of Technology, Kurukshetra.

80% of seats are reserved for candidates passing the qualifying exam from schools/collage located in Haryana and 20% seats for Haryana domicile irrespective of the location of Institute from where the candidate has passed qualifying exam. Candidates from outside Haryana are eligible for payment seats.

Himachal Pradesh

National Institute of Technology, Hamirpur, conducts the Combined Pre-Entrance Test (CPET). Admission is open to all on the basis of merit in CPET. Payment seat candidates can apply to colleges directly.

Jammu and Kashmir

The Competent Authority for Entrance Examination conducts the Jammu Kashmir State Level Entrance Test (SLET). Admission is open to locals of J&K only.

Karnataka

Government of Karnataka conducts the Karnataka State Level Common Entrance Test (CET) at state level for admission to all professional courses in University, Regional, Private Aided and Unaided Engineering Colleges in the State affiliated to Vishveswaraiah Technological University.

There are two kinds of seats available in the various colleges within the State of Karnataka: the free seats and the payment seats. These in turn are split between the State Government and the college management. The payment seats are further sub-divided into Karnataka quota and Non-Karnataka quota.

85% of the seats were reserved for Karnataka students while the remaining 15% were for Non—Karnataka students. However, the share of non-Karnataka seats has now been cut by 10%. In addition, the Karnataka Government on 26 July 2004, moved a resolution in the Assembly, fixing 75 per cent of the seats in medical, engineering and dental colleges for Government and 25 per cent as management quota as a one--time step for 2004-2005.

Candidates with seven full academic years of study in Karnataka are considered as Karnataka students.

Kerala

State level common entrance examination (CEE) is conducted for admission to courses in all the Engineering colleges affiliated to the Calicut, Kannur, Kerala, CUSAT and Mahatma Gandhi universities.

Admission is open to Indian citizens of Kerala origin which implies that candidates should have studied in educational institutions in Kerala for at least 5 years within a total period of 12 years before the completion of qualifying examination (10+2 or equivalent examination) or the candidate, or the candidate's father/mother should have undergone the qualifying course in Kerala.

Madhya Pradesh

Pre—Engineering Test (PET) is conducted by Professional Examination Board, Madhya Pradesh, Bhopal for admission in: (I) Government Engineering Colleges; (ii) Private Engineering Colleges; (iii) Autonomous Institutions; and (iv) M P quota seats in Regional Engineering Colleges.

Admission is open to MP candidates only. Candidates should have studied in State institutions for 3 consecutive years during 5 years preceding the year in which admission is sought or bonafide resident of MP or sons/daughters of: (a) State Govt. employees/All India Service (State cadre); (b) Central Govt/Public Sector Undertakings employees posted in the State; (c) Persons settled in MP under resettlement scheme.

Maharashtra

Admission is regulated according to the State Level Centralised Admission Process (SLCAP) in Government, Government-aided and private Engineering colleges in Maharashtra.

Admission is open to students from Maharashtra only. However, students from other states can apply for the payment seats directly to the respective colleges.

Orissa

Joint Entrance Examination (JEE) is conducted by University College of Engineering, Burla for admission at the Government and Private Engineering Colleges in the State. Admission is open to Orissa State candidates.

Pondicherry

Joint Entrance Test (JET) is conducted for admission to engineering courses. 75%/85% of seats are reserved for Pondicherry residents and remaining from other parts of India.

Punjab

Admission to engineering courses is based on Punjab Combined Entrance Test (CET) conducted by the Punjab Technical University, Jalandhar in the Engineering Institutions and Departments of University located in the State of Punjab. Allocation of seats, conditions of domicile and eligibility vary from institution to institution.

Rajasthan

Malaviya Regional Engineering College, Jaipur conducts the Pre—Engineering Test (PET). Admission is open to residents of Rajasthan only, they being candidates who have continuously studied for last 5 yrs in Rajasthan or his/her father/mother is a bonafide resident of the State and the candidate has passed the qualifying exam from Rajasthan.

Tamil Nadu

Anna University conducts the Tamil Nadu Professional Courses Entrance Examinations (TNPCEE) for admission in the Government, Government Aided and Private colleges.

Seats are open to Tamil Nadu students only. However, 50% seats in private engineering colleges open to Tamil Nadu and other States candidates.

Tripura

A Joint Entrance Examination (JEE) is conducted for permanent residents of Tripura State only (candidate or his/her parent should have stayed in Tripura for 10 yrs).

Uttar Pradesh

Institute of Engineering & Technology conducts the Uttar Pradesh State Engineering Admission Test (UPSEAT). A maximum of 15% seats are accessible for students from outside the UP state.

West Bengal

A Joint Entrance Examination (JEE) is conducted by the West Bengal Board of Examination for admission to degree programme in Engineering and Technology courses.

The government recently opened its engineering institutes for students from all states by scrapping the domicile criterion for those appearing in the state-conducted JEE 2004. According to the domicile restrictions, in place till last year, it was binding either for JEE candidates themselves or their parents to have resided in Bengal for 10 years at a stretch.

The government is also trying to fix 15–25% of the seats to be filled through the AIEEE.

Conclusion

For all students interested in undergraduate engineering courses, two exams are a must; these being the AIEEE and the IIT—JEE. Students can also apply to their respective state CETs/JEEs. Most states have domicile restrictions wherein the CETs are applicable either to only state residents or seats are reserved for local students. However, some states do allow students from other states to apply to colleges directly under payment seats. Most CETs include government aided as well as private colleges in its ambit. Recently there has been a steady proliferation in the number of private engineering colleges, which hold separate entrances or allow admissions through payments, these being unaccounted for.

Hence, we can reach the conclusion that the students of India can sit for a minimum of 13 engineering entrance examinations during the transition phase.

Medical Entrances

All medical colleges in India are monitored and accredited by the Medical Council of India—a statutory body constituted in 1934, under an Act of Parliament – the Indian Medical Council Act, 1933. Many amendments have been made in the recent years to restrict the proliferation of medical colleges in India.

Entrance examinations to Medical colleges are conducted on an All India basis as well as state wise basis. Apart from this, some national level institutions also conduct their own entrance tests.

All India (CBSE) Pre-Medical/Pre-Dental Entrance Examination

The Central Board of Secondary Examination, Delhi conducts an All India Pre-Medical/Pre-Dental Entrance Exam to select the candidates at an all India level (except in the states of Jammu & Kashmir and Andhra Pradesh) for admission to roughly 15% of the total seats in the colleges of each state.

State Entrances

Each state conducts its own Combined State Medical Entrance examination. All colleges in the various states have allocated 85% of the seats for state/local candidates while the remaining 15% is filled through the All India Medical Entrance examination. Domicile restrictions are the same as the ones under engineering.

National Institutes/Private Colleges holding separate Entrances

AIIMS holds its own entrance examination at an All India level for 25 seats at an undergraduate level.

Jawaharlal Nehru Medical College, Aligarh is one of the constituent colleges of the Aligarh Muslim University and holds a separate entrance examination at an All India basis for 150 seats at the undergraduate level.

Vardhman Mahavir Medical College, Safdarjung Hospital, Delhi has affiliation with the Guru Gobind Singh Indraprastha University and holds its own private entrance for 100 seats at the undergraduate level.

Armed Forces Medical College (AFMC), Pune holds an entrance for a total of 130 seats at an undergraduate level. Admission to MBBS course is on the basis of an objective type written examination conducted in 28 centres across India. This is followed by an interview and then after the final selection.

Institute Of Medical Sciences, Benaras Hindu University, Varanasi holds an All India Competitive Written Test (PMT) for admission to MBBS course for 50 seats.

Mahatma Gandhi Institute Of Medical Sciences, (MGMS) Wardha (Maharashtra) selects students as per merit in the entrance examination they hold for 64 seats.

Conclusion

A student can sit for a minimum of 20 medical entrance examinations during the transition phase for an undergraduate degree in medicine (MBBS).