

BOMBAY UNIVERSITY.

My Examiner (1942 – 1947)

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Today you have given me an opportunity to express my views about, the University of Bombay. I am not only happy but proud that I have studied under Bombay University from Matriculation onwards except last 1 ½ years. It was a great Institute. Sindh University as a daughter institute had inherited it, but over years it has deteriorated beyond any resemblance with Bombay University of my student days. Sindh University has also produced so many daughter universities, but it is not the same. I am convinced we, no longer can produce scientists.

In 1856 the East India Company decided to establish universities in the presidencies of Bengal, Madras and Bombay, the last on 18-07-1856, but actual incorporation took place on 24 January 1857 for Calcutta University, for Bombay 18 July 1857 and for Madras 15 September 1857. There was demand from other areas of British India and the progress was as follows:

- Lahore University College, 1869.
- Punjab University 14 October, 1882.
- Aitcheson College Lahore, 1886.
- Allahabad University 23 September, 1887.
- Islamia College Jodhpur, 1893.
- Arts College Jodhpur, 1893.
- Khalisa College Amritsar, 1897.

The first three universities competed with each other for high standards and the last two surpassed the first one before my college days. Since Bombay University also conducted Matriculation examinations until independence, it controlled syllabus of Matriculation. In the Bombay Presidency, and later on in Sindh Province, the primary education was five years, one year Kindergarten and four more classes, to be eligible for

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admission to secondary high school, which was seven more years to Matriculation, against in 10 years in many other Indian and some foreign institutes like USA. Twelve years to Matriculation determined standard of education, which I realized only a decade later. It is fair to describe here the standards that were maintained at high school level. In Sindh there were 48 high schools in 1941, which were competing with each other and interestingly all the papers of Preliminary Examination before sending candidates applications most of these high schools. These question papers were put in files subject wise and maintained as a guide line for the teacher. I read and solved many papers for at least 5 past years at Mehar. The results of Matriculation examination of Bombay University were 33% and some candidates who failed joined some private schools in Karachi and appeared and passed Matriculation from the Punjab and easily too.

Each student had to pass each subject, which for Matriculation were grouped as “English two papers, physics and chemistry one paper, mathematics two papers”, history and geography one paper and Persian and Sindhi one paper, in all 7 papers. Matriculation examination was conducted on first Monday of March and was all over in 3 ½ days. The intermediate, science and art paper would start on the 2nd Monday of March and 7 papers namely mathematics 2 papers, physics 2 papers, chemistry 2 papers, English and Sindhi one paper and all were over in 3 ½ days. The B.Sc., B.A, first year engineering and first year MBBS, (after 2 year studies) on the 3rd Monday and so on. The Matriculation result was out on May 31st and others a few days latter on fixed dates, so that all students could join next higher classes on 20th of June. The first term ended on 10th of October and 2nd term started on 10th of November. There was no change in these dates.

In our days 2 examinations per day was the general rule. In engineering there were 10 papers and all would be over in 5 days.

Standards of Bombay University came to my notice when I examined the examination paper and the text books used in Cambridge (England) and found that the syllabus as well as text books at the two universities were the same and many question papers of Bombay University examination were repetition from Cambridge University examinations. Occasionally some questions from Madras University papers were also extracted, but as a rule Cambridge was torch-bearer of Bombay University for sciences, mathematics and engineering. I did not know the details of biology subject, medical and

law but since Indian Civil and Criminal Courts were derived from English Law, which again was derived from Roman law, the law students usually quoted some interpretations of Indian courts from Laws of England.

In brief the standards of education in Bombay were very high and possibly at par with Madras, but much higher than all 14 other universities in India then, as I had seen their papers of engineering while being a student in Karachi College from Matriculation onwards.

The 2nd test of standards came after passing Bachelor's degree in Mechanical/Electrical from Sindh University (Results declared in 1949), which came into existence soon after independence. I got scholarship to go to USA for M.Sc in Agriculture Engineering from the famous Texas A&M (Agricultural and Mechanical) College. The scholarship was for 3 years for practical training with some companies, but the Pakistan Embassy sent me to this college for M.Sc in 3 years. I was late by some days and as I entered the class, there was examination on "Advanced Diesel Engines". Without preparation and without seeing the text books of the subject, I solved all examples correctly. The head of the department told me that I have to study physics, chemistry and mathematics taught during Intermediate Science days of Bombay University, 8 years before and surveying of First Year Engineering. I virtually rebelled and went in protest to Dean Trotter with syllabus of Bombay University and complete list of the text books; I had studied from Inter-Science to final year of engineering. The Dean sent me to two professors of mathematics and physics by name Peter and Porter. They examined the syllabus and saw many of the British text books, which were in their library too. The Professor of mathematics was surprised that we have also been taught astronomy in mathematics. After examining my back ground, both of these professors rang up the Chairman Department of Agriculture Engineering and told him: "Mr. Jones, we have examined the background of this man in mathematics and physics and they are so advanced that he is capable of teaching these subjects to your teacher". I met Dean Trotter, who rang him up and told him that, he had visited India and Pakistan and the British had made them very strong in theory, but as facilities for practical training were lacking, he should concentrate on this aspect. Simultaneously the Sindh Government had approached Caterpillar and International Harvester dealers in Pakistan to organize

training for me and this had materialized and International Harvester had agreed to give me practical training for three years on earth moving machinery, mechanization of various crops, repairs of equipment, cold storage etc., as applied to agricultural production, ground water development and different methods of irrigation including sprinkler irrigation. I therefore left Texas A&M College for short training.

After 2 ½ years I was advised by some friends in Pakistan: “Your training has no meaning in Pakistan. They want to see your paper degree and so go to some university and get it, before returning”. I accepted this advice to go to University of Wisconsin at Madison. The teachers here had a great understanding. They told me “You had spent one year in Pakistan with earth moving machinery dealers and 2 ½ years International Harvester, which has provided you all types of literature on many subjects and mechanization, so you do not need theory. We will make you write some papers allow you to audit some subjects (attend classes but without appearing in examination) and you have to take only 3 subjects for master degree, as USA is advanced in these subjects at the present than England. These were; Advanced Diesel Engines, Heating, Ventilating, Air-conditioning and Refrigeration and Farm Power and Agricultural Implements, which are now being newly evolved and pull type being replaced by mounted versions and the rest of your work will be writing papers on subjects, we will suggest”.

During the course of treatment, Texas Agriculture Mechanical College (now a university), I wrote a letter to Professor Kewalramani – Principle of the NED College (now university) Karachi, “Here I am from a poor college of poor country and poorly equipped, but with excellent syllabus ad devoted and hard working teachers, that I dare say that our standards of education are much higher than those in USA”. Kewalramani kept reading this letter in annual functions with utmost pride and satisfaction.

In the end let me say that at the Intermediate Science level, we had only one paper for English and Sindhi combined and six papers for physics, chemistry and mathematics. In the first year of engineering there was a paper of Commercial English; teaching various terms used in national and international trade etc. in other year, there was no subject, not connected with engineering. In today’s syllabus of Intermediate Science and beyond, there are arts subject’s viz. Pakistan studies, Islamiat, Sindhi, Urdu, and some English. To pass or secure good marks, one can concentrate on non-technical subjects

and overall result would be excellent, although the candidates may have just pass marks in science subjects. I have examined the Intermediate Science marks of hundreds of candidates coming for interviews. They have secured over 90% marks in Sindhi, Urdu, Islamiat, Pakistan Studies and only pass marks in physics, chemistry, mathematics and biology. All of them had Bachelors degrees in engineering and Master degrees in agriculture or other Sciences. I have questioned their ability to be good scientists.

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