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Education in

PAKISTAN

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HEALTH, EDUCATION, AND WELFARE
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Foreword

THE OFFICE OF EDUCATION is engaged in the preparation of a series of basic studies on education in a number of foreign countries. These studies are part of a program to promote American understanding of educational conditions in these countries and also to furnish American college registrars, students of comparative education, and those in Government or private agencies engaged in international educational activities with data on foreign education. The scope and the text of such documents have varied from time to time depending on the nature of the need.

Education in Pakistan is based on data gathered by Dr. Abul H. K. Sassani, the author, in Pakistan in May and June 1952 and supplemented since then through documentation. While data include necessary information needed by school officials who deal with student transfers, the scope of the material presented is wide enough to be useful to scholars in the field of comparative education, particularly those who are interested in knowing the role that education plays in the life of this new Moslem State. The reader will find here comparatively more detailed information on higher institutions of learning than any other phase of education in Pakistan. Such treatment is intended to provide as much needed data as possible on Pakistani higher institutions of learning because of the increasing activities in the United States exchange-of-persons programs at the university level, and the inter-university contractual programs carried on between the United States and Pakistan.

Paucity of information on elementary and secondary education also may indicate the degree of importance placed on higher education prior to 1947 in the Indo-Pakistan subcontinent. The reader will also find that the Pakistani leaders have made provisions for education at all levels

to be an important part of the Government program for national unity and development. To the many persons in Pakistan including those at the Central and Provincial Ministries of Education and Directors of Public Instruction who helped the author during his visit in East and West Pakistan, this office is deeply indebted and expresses its gratitude.

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Chapter One

Pakistan and Her People

Genesis of Pakistan

The genesis of Pakistan and the underlying factors which have created the acute feeling between the Moslems and Hindus in the subcontinent of India are very complex and extremely significant in the history of this new state. Under the British rule, India was divided into two parts administratively: one was known as British India, which was directly under the British; and the other as the Indian States, which were governed by Indian princes over whom the United Kingdom exercised considerable suzerainty. The population of India was again divided on a communal basis into Moslems, Hindus, Sikhs, Christians, Buddhists, Parsis, etc.

Because of their religious beliefs, certain social principles, and traditions, there seems to have been a number of differences among these groups. Other national and international political factors had increased such differences.

Some of these differences were clearly stated by the late Mohammed Ali Jinnah, called by his followers Quaid-I-Azam, or great leader:

> It is extremely difficult to appreciate why our Hindus and Moslems of India fail to understand the real nature of Islam and Hinduism. They are not religions in the strict sense of the word but are, in fact, different and distinct social orders, and it is a dream that the Hindus and Moslems can ever evolve a common nationality, and this misconception of one Indian nation has gone far beyond the limits and is the cause of most of our troubles and will lead India to destruction if we fail to revise our notions in time. The Hindus and Moslems belong to two different religious philosophies, social customs and literature. They neither intermarry nor inter-dine and, indeed, they belong to two different civilizations, which are based mainly on conflicting ideas and conceptions. Their aspects of life and of living are different. It is quite clear that Hindus and Moslems derive their inspiration from different sources of history. They have different epics, different heroes, and different episodes. Very often the hero of one is a foe of the other and likewise the victory of one is the defeat of the other. To yoke together such nations under a single state, one as a numerical minority and the other as a majority, must lead to growing discontent and final destruction of any fabric that may be so built up for the government of such a state.

This statement indicates the depth of penetration of some of these differences. The Moslems had also been very articulate and sensitive about their political rights and views. All attempts to settle their problems and consolidate a common platform as one nation had failed.

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As a result of all these conditions combined, the Pakistan Resolution was adopted at the annual session of the Moslem League in 1940. This resolution demanded that in areas where the Moslem population was in a majority, a separate state should be established.

On August 15, 1947, seven years after Jinnah had first put forward the demand for a separate Moslem State, the Dominion of Pakistan, the world's largest Moslem State was born. On September 30, 1947, Pakistan was admitted to the United Nations.

On August 15, 1947, the Pakistan Constituent Assembly met with impressive but simple ceremony. The next day the Constituent Assembly elected Jinnah as the permanent president of the Assembly. On August 14, Lord Louis Mountbattan read to the Pakistan Constituent Assembly a message from the late King George VI of Great Britain:

> Tomorrow two sovereign States will take their places in the Commonwealth, not young nations but the heirs of old and proud civilizations; fully independent states, whose leaders are statesmen already known and respected throughout the world, whose poets and philosophers, scientists, and warriors have made their imperishable contributions to the service of mankind; not immature governments or weak, but fit to carry their great share and responsibility for the peace and the progress of the world.

On August 15, 1947, Mohammed Ali Jinnah was sworn in as the Governor General of Pakistan.

East and West Pakistan

Boundaries

Pakistan, "the land of the pure" consists of two geographical units, West Pakistan and East Pakistan, separated by a distance of approximately 1,000 miles. West Pakistan has an area of 310,298 square miles and East Pakistan, 53,920 square miles, making a total of 364,218 square miles for the entire country.

West Pakistan adjoins Iran and Afghanistan in the west and northwest and the Indian provinces of Rajputana and East Punjab in the east. In the northeast lies the disputed State of Jammu and Kashmir and to the south and southwest the Arabian Sea. East Pakistan is bounded on the north by the hilly regions of Jalpaiguri, Darjeeling, and parts of Assam, India, in the south by the Bay of Bengal, in the west by the Indian provinces of West Bengal and Bihar, and in the east by the Indian Province of Assam.

Provinces

West Pakistan consists of the Provinces of the North-West Frontier, the Punjab, Sind, and the centrally administered areas of Baluchistan and Karachi. The Province of Punjab, created by the division of the old Punjab, comprises about 60 percent of the area of the old Province. East Pakistan consists of the Province of East Bengal, to which the district of Sylhet has been added. In addition, the following States have also acceded to Pakistan: Kalat, Makran,

Bahawalpur, Kharan, Las Bela, Khairpur, Chitral, Dir, Swat, Amb, and the State of Junagarh, which like the State of Jammu and Kashmir, is a disputed area between India and Pakistan.

Population

In population, Pakistan is one of the largest Moslem countries in the world. In the official census (1951), the population was 75,636,000, excluding 207,000 persons claiming nationalities other than Pakistani.

Of the total 75,636,000 population in Pakistan, 85.1 percent are Moslems, and the remainder are Hindus, Christians, and others. In West Pakistan 97.1 percent of the population and in East Pakistan 76.8 percent are Moslems.[1] The average density of population in East Pakistan is about 879 persons per square mile, while in West Pakistan, it is only 113 persons per square mile. The principal towns are Karachi, which is the capital city, with 1,123,000 population, and like Washington, D. C., it is a federal area; Lahore, 849,000; Dacca, 243,000; Rawalpindi, 243,000, also known as Pindi; Hyderabad, 229,000; Multan, 190,000; Lyallpur, 180,000; Sialkot, 150,000.[2]

Climate

The country as a whole is subject to extremes of climate. In West Pakistan, during January and February, the night temperature may drop to the freezing point on the plateau, while during the day, it may not rise above 75°. But in the summer months, starting in late March, the heat is hot dry. The climate both in East and West Pakistan is subtropical for about two-thirds of the year. From March to the end of October East Pakistan has high temperatures and humidity with a dry season followed by heavy rains. East Pakistan does not suffer from the same rigors of climate as West Pakistan but does suffer from heavy monsoon rains. The annual average rainfall in East Pakistan is from 70 to 400 inches. The coldest months are November and December. From March the heat increases, dry hot winds blow, and dust and sandstorms are common. Almost all kinds of work, particularly agricultural operations, are suspended. At last the monsoon breaks, usually in torrents of rain, about the middle of June.

Natural Resources and Industry

Pakistan is primarily an agricultural country. About 90 percent of the population is dependent on agriculture. The country produces annually about 4 million tons of wheat, 8 million tons of rice, 150,000 tons of barley, and about 900,000 tons of other coarse grains such as millet and maize. The average

[1] *Census of Pakistan*, 1951, Office of the Census Commissioner, Ministry of Interior, Government of Pakistan, Karachi, October 1951

[2] *Pakistan Facts and Figures*. Karachi, Pakistan Publications, 1951–52.

annual production of refined sugar is 64,000 tons in both East and West Pakistan. Jute, often called "the Golden Fibre of East Bengal," is the most important cash crop of Pakistan, accounting for nearly 80 percent of the total world production. At the time of partition, there were no jute mills in the whole of Pakistan. Efforts are being made to set up large jute mills as soon as possible to derive the maximum possible benefit from the jute with which nature has so generously provided them. Cotton is another important product, Pakistan being the third largest exporter of cotton in the world. Her export in 1952–53 was 1,506,600 bales of 400 pounds each.

Pakistan's fruits include apples, pears, peaches, plums, cherries, grapes, figs, guava, loquats, pomegranates, mangoes, bananas, papaya, dates, and various berries and nuts.

Pakistan has a forest area of about 8,372,160 acres, which is about 3.5 percent of the total area of the country.

Industries now in operation in Pakistan include cotton spinning and weaving mills, jute mills, sugar refineries, cement factories, flour mills, foundries, railway workshops, and the manufacture of sporting goods and surgical instruments. Cottage industries, comprising different kinds of native handicrafts, have been greatly encouraged by the Government. Cottage industry products include such articles as: painted pottery, metal and wood products, silver jewelry, Dacca muslin, shawls, copper or aluminum utensils, wooden combs, embroidered silk, ivory ornaments, and camel skin lamps.

Pakistan produces low-grade coal, chromite ore, rock salt, gypsum, crude oil, and a few other minerals. A refinery at Rawalpindi produces over 50 million gallons of petroleum annually.

The Pakistani People

The Indo-Pakistan subcontinent before its conquest by Moslems was inhabited mostly by Hindus and the aborigines. The Moslem contact with India was first made in A. D. 712, when the Arab general Mohammed Bin Qasim invaded and conquered Sind. For two centuries the Moslem conquerors were satisfied with their hold on Sind only, but in A. D. 918, the conquest of the whole subcontinent was begun by Moslems from central Asia who came into the country through the famous Khyber Pass. It was these Persian, Turk, Afghan, and Turkoman invaders who brought with them the faith of Islam and a language and a culture which started a new civilization in that ancient land.

Most of the Pakistani people are of the Aryan race, descendants of Greek, Persian, Turk, Afghan, or Arab settlers and immigrants. Ethnologically, they belong mainly to the Indo-Aryan and Turko-Iranian group. Before the British came, Moslems were the ruling class in the subcontinent for several centuries. The people of Pakistan are predominantly Moslems. There are a number of Parsis, descendants of Zoroastrian Persian refugees who had settled in India. There are also Hindus, Sikhs, Christians, and some Jews in various sections of

the country. Like our nation, Pakistanis have descended from a number of different races and origins but have a great deal in common with each other. From Sylhet in the distant east to Quetta in the extreme west, there exist a strong bond and a feeling of oneness among the people through their religious belief. Nearly all of them worship "Allah" or God in the same way and believe in the teachings of the Koran (Quran), the Moslem Holy Book.

The Moslem population is made up of a large number of different and colorful tribes. The most important among them are Jats, who make fine soldiers, are good farmers, and live in the Western Punjab. The Baluchis, who are straightforward, honest people, and often excellent horsemen, live in the southwest of West Pakistan and certain parts of Sind. The Pathans, who are very independent and who make brave and dashing soldiers and splendid workers, live in the Northwest Frontier Province and districts of Attock and Mianwali. East Pakistan has mostly Bengalis.

The Hindus who remained in West Pakistan after the partition are chiefly in the big cities of Karachi and Lahore. There are some 259,000 Hindu farmers in Sind. The Parsis, who include many leading businessmen, live in Karachi. The Christians, who have their own churches and missions, are scattered in small communities throughout the country. A few hundred Christian peons, who are of mixed Portuguese descent, live in Karachi. Most of the Christian Anglo-Indians live in Lahore and Karachi.

About 32 million Moslems and 10 million Hindus, with a few thousand Christians, live in East Bengal. The great distance between this Province and West Pakistan made little difference in the influence of the invaders who came mostly from the Western mountains. From A. D. 1200, under the Turki emperors, until 1757, when Clive conquered Eastern Bengal, the Province was ruled directly by Moslems. For over 550 years Afghans, Moguls, and large Moslem armies were stationed there. There are many mosques in Dacca, the capital, and profound Moslem influence is evident everywhere in East Pakistan.

The teeming population of both East and West Pakistan mostly live in small villages. Village life in East and West Pakistan has made very little progress in the last 50 years. Except for a rare pilgrimage, which is made only by the very few who can afford it, the ordinary villager knows nothing about the outside world. The rapid development of motor road transport has changed this in West Pakistan. The villagers as a whole are closely related, and there is a strong community feeling. The village usually manages its own affairs without outside interference, but are subject to regular administrative control from district and Provincial headquarters. Generally, each village has a village "Panchayat" or an assembly of local elders which settles disputes among the villagers.

Health conditions in these villages need improvement very badly. Ignorance of germ causation and the manner in which diseases are spread has led to a great deal of fatalistic acceptance of sickness and death. Faulty sanitation, improper diet, unsafe water supplies, and lack of personal hygiene favor the

spread of infectious and parasitic diseases and lead to the high incidence of typhoid fever, dysentery, malaria, etc. Malaria is a constant cause of trouble, but attempts are now underway to check it.

To solve health problems, the Government of Pakistan, in cooperation with the World Health Organization, the United States Public Health Service, and Foreign Operations Administration, is attempting to make health education a part of its broad social uplift program, including housing, schooling, and welfare work. It is designed to fight ignorance and prejudice and to provide a wholesome environment.

The program includes training and demonstration projects in connection with the control of communicable diseases, especially malaria, tuberculosis, typhus, venereal diseases, the expansion of maternal and child health services, and the training of nurses and midwives. Trained personnel, medical and auxiliary, is urgently needed. Tuberculosis demonstration centers have been established in Karachi, Lahore, and Dacca. The Karachi laboratory of this center now supplies vaccine for the area. A demonstration center in the control of venereal disease has been established in Karachi since 1952.[8] These are in addition to the greater advances which have been made by the Health Services of the Government of Pakistan and the Provinces themselves to bring good health to the people of Pakistan.

Language

The majority of the people speak in Urdu and Bengali (Indo-Aryan languages), the vernacular, and use English as a second language. Throughout West Pakistan, Urdu, a mixture of Western Hindi with Persian, Arabic, and other languages, is used. Urdu is written from right to left in Persian script. Pashto, Sindhi, and Panjabi are also used in West Pakistan. Urdu and Bengali are widely used in East Pakistan. English is commonly used in the Central and Provincial Governments and in business transactions. For instance, the proceedings of the Constituent Assembly are carried on in English. Now the Government has a 10-year plan in which English is to become a second language and Urdu and Bengali the country's official language.

The problem of language in the school has constantly presented special difficulties for Indian Moslems. The formal reading of the Koran in Arabic was considered indispensable. In all the maktabs (elementary schools) the study of the Koran was required and considered essential. The tradition was to teach Arabic, not through the medium of the vernacular, but through Farsi or Persian, the court language of the Moguls. In addition, most Moslems wished their children to learn Urdu, the lingua franca of Moslems all over the subcontinent. Again the vast majority of the people in Bengal considered Bengali their mother tongue. Thus for the youth of school age, the learning of Arabic, Persian, Urdu,

[8] World Health Organization, *Official Records of the World Health Organization*, No. 45. Annual report of the Director General to the World Health Assembly and to the United Nations, p. 205, Geneva, Palais des Nations, March 1953.

Bengali, or other dialectical forms, and then English, made the burden overwhelming.

Government

The Government is based on federal principles, the present provincial constitution being an adaptation of the Government of India Act of 1935. A new constitution is being drawn up. The Governor General, appointed by the Crown on the advice of the Pakistan Cabinet, is responsible for making all Central Government appointments, including provincial governors and high court judges. The federal authority is vested in the Constituent Assembly or Parliament, in the Cabinet of Federal Ministers, headed by the Prime Minister, and in the Governor General. In other words, the country is an independent sovereign state with governing powers delegated to a cabinet which is collectively responsible to the Constituent Assembly through the Prime Minister. The head of the State is the Governor General. The Prime Minister is appointed by the Governor General, while other cabinet members are appointed on the advice of the Prime Minister.

The functions of the Government are carried on by the following ministries: Defense; Foreign Affairs and Commonwealth Relations; Finance and Economic Affairs; Commerce and Education; Food, Agriculture, and Law; Interior; Information and Broadcasting; Kashmir Affairs; Industries; Communications; Labor, Health, and Public Works; States and Frontier Regions; Refugees and Rehabilitation; and Minorities Affairs.

The Governor General is expected to act according to the advice of his ministers, and any ordinance promulgated by him is subject to repeal by the Constituent Assembly. Pakistan is a federation, and the responsibility of the Central Government and the responsibilities of the Provinces have been clearly defined.

Each of the Provinces of Punjab, Sind, the North-West Frontier, and East Bengal has its own governor and an elected legislative assembly and is usually governed by a cabinet of ministers responsible to the assembly and the Governor. The Provinces are represented in the Pakistan Constituent Assembly by delegates from their own legislative assemblies. These delegates are elected in the proportion of one for each million inhabitants of the Province. In the tribal territories liaison with the tribal chiefs and councils of the North-West Frontier is maintained through the governor of the Province acting as an agent of the Governor General. The natives of the Chittagong Hill Tracts are similarly the responsibility of the Federal Government through the agency of the Governor of East Bengal. Baluchistan is governed by an agent of the Governor General. There is universal suffrage.

The Capital City, Karachi, as a federal area, is governed by an administrator responsible to the Central Ministry of Interior.

Provinces are further divided into districts in which the Divisional Commissioner and District Magistrate or Deputy Commissioner or Collector have both revenue and magisterial functions. District board and municipalities form the units of local self-government. There is a growing feeling among the people to make Pakistan a republic.

Pakistan and the United States maintain cordial relations. In 1950, the two countries signed a point 4 agreement, and hundreds of Pakistanis are now studying in the United States under this plan. A number of United States technicians have gone to Pakistan to assist the country in developing its agriculture, education, industry, and communications. In addition, the United States is also assisting Pakistan under the Fulbright and Smith-Mundt Acts.

Chapter Two

Educational Development

Education During Early Hindu and Moslem Period

The present educational status of Pakistan is the result of a complex history in which three main cultural impacts are involved: the Hindu, the Moslem, and the European. The primary purpose of ancient Hindu education appears to have been a religious initiation: "The teacher had to teach the pupil how to pray, to offer sacrifice, to perform his duties according to his state of life." The student had to perform certain set duties for his teacher. This early Indian education was essentially religious and personal, the idea being that the disciple learned from the master or teacher by devoted service and living with him. The teachers were mostly Brahman priests. The schools were known as the "Parishada" or "Tols." Practically every Brahman child was taught at home the elementary sacred love and epic poetry. The method of learning at home or in the Parishada was through memorizing the subject matter.[1]

The Moslem invasion and conquests naturally retarded the progress of education in the subcontinent. The Hindu converts to the Islamic faith demanded schools where the new faith could be taught. The Moslem schools also emphasized religion, knowledge was crystallized in the Koran, and studies of it were pursued under a Moulvi, the Moslem priest. Education, managed by the priestly hierarchy of the Hindus and the Moslems under the Hindu and Moslem governments, at various times seems to have been a matter of public importance. Many of the temples and mosques were used as schools and colleges for instruction. They were endowed by rulers and other rich people for that purpose. However, in both systems teaching of the young was somewhat neglected, and the funds allocated for the temples and mosques were used mainly for the advanced religious and philosophical studies of a few. The system created a body of men invested with certain privileges with special protection under ecclesiastical law instead of the ordinary civil law.

Education Under the British Administration

European education in India began in the 18th century with the Christian missionaries of different countries and churches. About the same period a

[1] T. N. Siqueira, *The Education of India, History and Problems*, Mysore City, Humphrey Milford, Oxford University Press, India Branch, 1939.

Sanskrit scholar, Raja Ram Mohan Roy, and an English watchmaker in Calcutta, David Hare, founded a college in Calcutta for "English education," and the teaching of English soon spread all over Bengal. Through various official and private efforts, the system of "English education" was adopted, and although the schools for Oriental learning were maintained, the translation of books into Sanskrit and Arabic was discontinued.

The educational system which existed in Pakistan until about 1947 dated from 1854. In 1853, the British Parliament investigated the development of Indian education. The following year, Sir Charles Wood sent his memorandum to the East India Company. The famous memorandum imposed on the Government of India the duty of creating a regular school system from the primary to the university. It advocated the establishment of teacher-training institutions and of a system of grants-in-aid. The memorandum suggested other developments in education which later resulted in a number of education acts.

It is not possible within the limits of this bulletin to deal with all the influences on the development of higher education in India. Among the major influences that might be mentioned were the Hunter Commission of 1882–84, Lord Curzon's University Act of 1904, the Government of India Resolution of 1913, and the Calcutta University Commission's Report of 1919, all of which influenced the development of education in India.

With certain variations in the different Provinces, education under the British administration was organized as follows: (1) In the *primary stage* a course of study selected on the basis of local needs was taught to children between the ages of 6 and 10; (2) in the *middle stage*, known as the Anglo-vernacular, courses were taught in the vernacular to children between 10 and 14, and English was also taught (missionary schools usually taught in English; (3) in the *higher English stage*, English was used as the medium of instruction in courses for students between 14 and 16 years; (4) in the *university stage*, English was used as the medium of instruction; the work was divided into intermediate courses, which required 2 years, and degree courses, which required 2 years and led to higher degrees such as Master of Arts or Science.

The purpose of the elementary school or primary stage was to teach reading, writing, and arithmetic, with literacy as the main objective. However, unfortunately, the vast majority of children did not spend the entire 4 years in the elementary school, which was necessary to achieve the desired objective.

In the secondary stage, the lure to ambitious boys was the university matriculation examination which opened the gates to Government service. Agriculture, the largest industry, afforded no employment on a large scale to the educated. Industry and commerce could absorb only a few of the secondary school graduates. Generally, the entire secondary school system was dominated by the matriculation system of the university authorities of the matriculation board.

The chief subjects commonly taught in the secondary schools were: English, a vernacular language, or any classical occidental or oriental language, such as Latin or Arabic; history; geography; arithmetic; elementary sciences; chemistry;

physics or hygiene; and drawing. Learning by rote was traditional in almost all schools.

The typical higher institution of learning was the arts college. It provided a 3- or 4-year course in arts and science which led to "pass" or "honors" degrees. These colleges were affiliated with a university. The degree examinations were conducted by the university. One of the weaknesses of the affiliating system was that it tended to keep the standards down to those of the weakest affiliated college.

Since 1919 there has been marked advance in the universities. The standards of examinations have varied a good deal from university to university, but an attempt to correct the situation has been made.

From ancient times, because of various circumstances, the education of girls has been considerably neglected and has been comparatively far behind that of boys. The universities have admitted women freely to degree courses, but the total number receiving intermediate and degree education has been very small. The illiterate mother has been an important factor in the backwardness of education there. Education of women has been far more neglected among the Moslem population than among the Hindus.

A large number of students went to England to complete their studies. A special department under the High Commissioner for India supervised the Indian students in Great Britain.

Educational Plans and Policies Since Partition

One of the most important problems confronting the new State of Pakistan was that of educating a country nearly 90 percent illiterate. Before the partition of India, over 80 percent of the population of 400 million was illiterate. In Pakistan, which comprises some of the most educationally backward parts of the subcontinent, the percentage of literacy was even lower. According to the 1951 census, there were 10,374,000 literates in Pakistan, which was 13.8 percent of the total population. Realizing the national importance of the problem, the Government soon after partition set up an advisory board of education to formulate plans for the guidance of the Central Government and the Provinces in bringing education to the people.

In November 1947, the Minister of Education convened a conference of the educational ministers of the Provinces, vice chancellors of the universities, directors of public instruction, and other leaders in education in Pakistan to discuss the reorganization of the educational system in accordance with the needs and aspiration of the nation.

Fazlur Rahman, Minister of Education, Government of Pakistan, and chairman of the Advisory Board of Education, in his invitation to delegates to the 1947 Pakistan education conference, said:

> It will be appreciated that it is only through a well-integrated system of education that the foundation of the new Dominion of Pakistan can be firmly laid and it is my earnest desire that this system of education should achieve a synthesis of the best elements of Western and Eastern

educational philosophies and should not only contribute toward the material and spiritual enrichment of Pakistan but also foster a consciousness of international collaboration. The present appears to me to be a suitable time for us to survey the existing and future opportunities in the educational field and to make adequate provision for them in the light of the requirements of Pakistan.

The message of the late Mohammed Ali Jinnah to the conference reveals the educational aspiration of the new nation:

> There is no doubt that the future of our State will and must greatly depend upon the type of education we give to our children and the way in which we bring them up as future citizens of Pakistan. Education does not merely mean academic education. There is immediate and urgent need for giving scientific and technical education to our people in order to build up our future economic life and to see that our people take to science, commerce, trade, and, particularly, well-planned industries. We should not forget that we have to compete with the world which is moving very fast in this direction. At the same time, we have to build up the character of our future generation. We should try, by sound education, to instill into them the highest sense of honour, integrity, responsibility, and selfless service to the nation. We have to see that they are fully qualified and equipped to play their part in the various branches of national life in a manner which will do honour to Pakistan.

The resolution of the conference was that the educational system of Pakistan should be inspired by Islamic ideology emphasizing many of the characteristics, such as "universal brotherhood, tolerance, and justice." The resolution has been accepted by the Central, Provincial, and State Governments and constitutes basic policy. The promulgation of this policy has necessarily required the reorientation of educational outlook and methodology.

The conference set up various subcommittees to consider and report on different aspects of education in Pakistan.

The Expert Committee on Primary and Secondary Education laid down the following guiding principles for educational ideology:

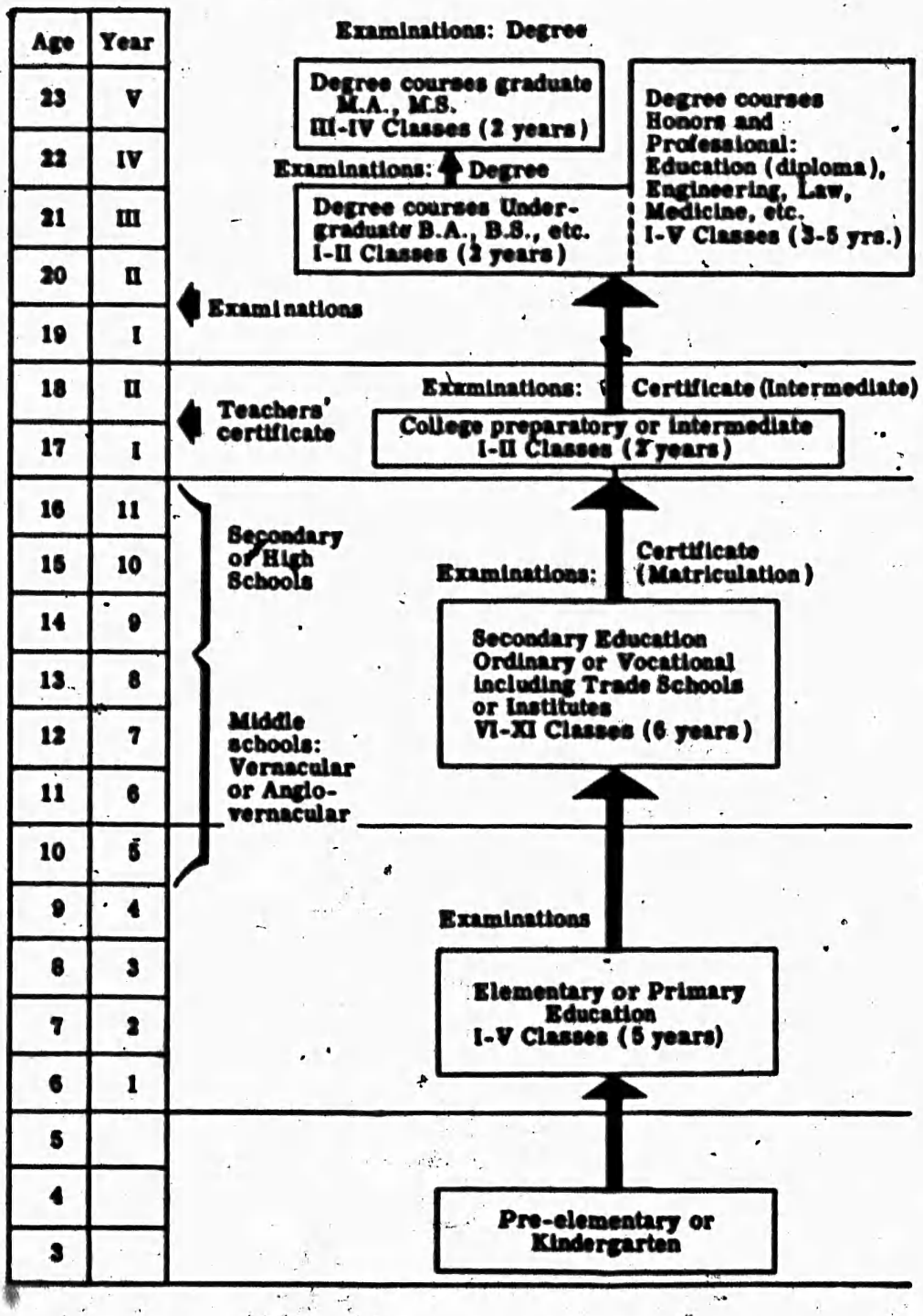
> (*a*) Education should be based on the Islamic conception of universal brotherhood of man, social democracy and social justice. (*b*) It should be compulsory for students to learn the fundamental principles of their religion. (*c*) There should be proper integration of spiritual, social and vocational elements in education.

Regarding preelementary education, the committee agreed that children between the ages of 3 and 6 needed attention in special schools. It felt, however, that the Government might lead in opening a few "preprimary" schools but that their provision should be left mainly to private agencies. The committee considered the various stages of formal schooling and recommended the following: Preprimary (kindergarten or nursery education), 3 to 6 years; Primary (elementary), 6 to 11 years; Middle, 11 to 14 years; and Secondary, 14 to 17 years. (See Chart 1.)

The committee agreed that a national system of education should be based on the strong foundation of free and compulsory primary education. It felt that keeping in view the requirements of an enlightened and democratic state, the period of free and compulsory education should be 8 years. However, it realized that the cost of providing this would be much too heavy for any provincial government to bear, and therefore suggested that to begin with this period

Chart No. 1.

ORGANIZATION OF ELEMENTARY, SECONDARY,* AND HIGHER EDUCATION IN PAKISTAN



*Pattern of secondary education and the significance of terminology varies from Province to Province

should be fixed at 5 years and that it should be gradually raised to 8 years as the economic resources of governments developed.

The committee generally agreed that the 6-year course would be more desirable but felt that it could not overlook the financial considerations involved and hoped that the economic resources of governments would soon improve enough to permit the raising of the 5-year course to 6 years and ultimately to 8 years.

Development of Educational Administration

The whole of Indo-Pakistan is divided into Provinces and princely states. Each Province has a local government headed by a governor who is generally assisted by a legislative and an executive council. The nature and the application of the laws of each Province are limited to that Province. Each Province in turn is divided into a number of districts. Almost every district has a district board for managing local affairs. This board is composed of elected and nominated members and usually the revenue collector acts as the president of the board. Now, in most cases, the chairman is also elected from non-officials. One of the functions of the board is to manage the primary or elementary education of the district. The board is financed by the special tax which is collected from the farmers and which, as a rule, is supplemented by contributions from the general revenues of the provincial government. Often the district is divided into a number of subdivisions called Taluks or Tahsils, and each Taluk has its own local board presided over by Tashildar or the local revenue officer. The larger towns have municipal boards.

Present Educational Administration

According to the constitution now being drafted, education is a provincial responsibility. The role of the Education Division in the Central Government is to coordinate educational policies throughout Pakistan, to plan for educational development on a national basis, and to offer advice on a variety of problems referred to it. (See Chart 2.)

To achieve national integration and uniformity in education, which is the hope of Pakistani educators, the Central and Provincial Governments must collaborate closely. For this purpose, the Central Government has set up the Advisory Board of Education, The Council of Technical Education, and the Inter-University Board. These bodies, which are composed of official and non-official experts, meet frequently to discuss problems of common interest and to recommend appropriate means of solving them. They have already done a considerable amount of the spadework essential in the planning of education on a national basis.

The Advisory Board of Education

The most important committee is the Advisory Board of Education, which was constituted by a Government resolution on the basis of the 1947 Pakistan

Education Conference recommendations. The members of this board are as follows: Pakistan Minister of Education, provincial education ministers, vice chancellors of universities, directors of public instruction of the States and Provinces, 3 representatives of the Pakistan Constituent Assembly, and 11 other prominent educators.

The need for a coordinating agency to bring official and nonofficial educationists together and afford them frequent opportunities of exchanging views and information had always been felt. In response to such a demand, a Central Advisory Board of Education was created in 1920 by the then Government of India. The present Advisory Board is similar to that board in its functions and its makeup.

The educational scene changed considerably between the two wars and continues to change. Attempts are being made everywhere to reconstruct educational systems and to integrate them with the social and spiritual life of the people. In Pakistan plans are being made to enlarge all-round educational facilities. While the autonomy of the Provinces in the field of education is recognized, the Government of Pakistan is prepared to play its part in educational reconstruction. Pakistan educators hope that the establishment of the Advisory Board will go a long way toward securing expert advice on all educational matters and will also provide an effective link between the Government and the public as far as education is concerned.

The Council of Technical Education

The Council of Technical Education is the second advisory body; its responsibility is to prepare a "comprehensive scheme for the reorganization and development on modern lines of technical education in all its aspects suited to the economic needs of the country and the peculiar genius of the people of Pakistan."[2] The board consists of 12 members, including 1 from industry, 2 members of the Constituent Assembly, 1 representative of the States acceding to Pakistan, 1 representative of labor, 2 principals of technical institutions, 1 representative from each of the 4 Provinces, and the Minister of Education.

The Inter-University Board

The Inter-University Board, the third advisory body, is composed of three representatives, one of whom shall be the vice chancellor from each university in the country. The functions of the board may include:

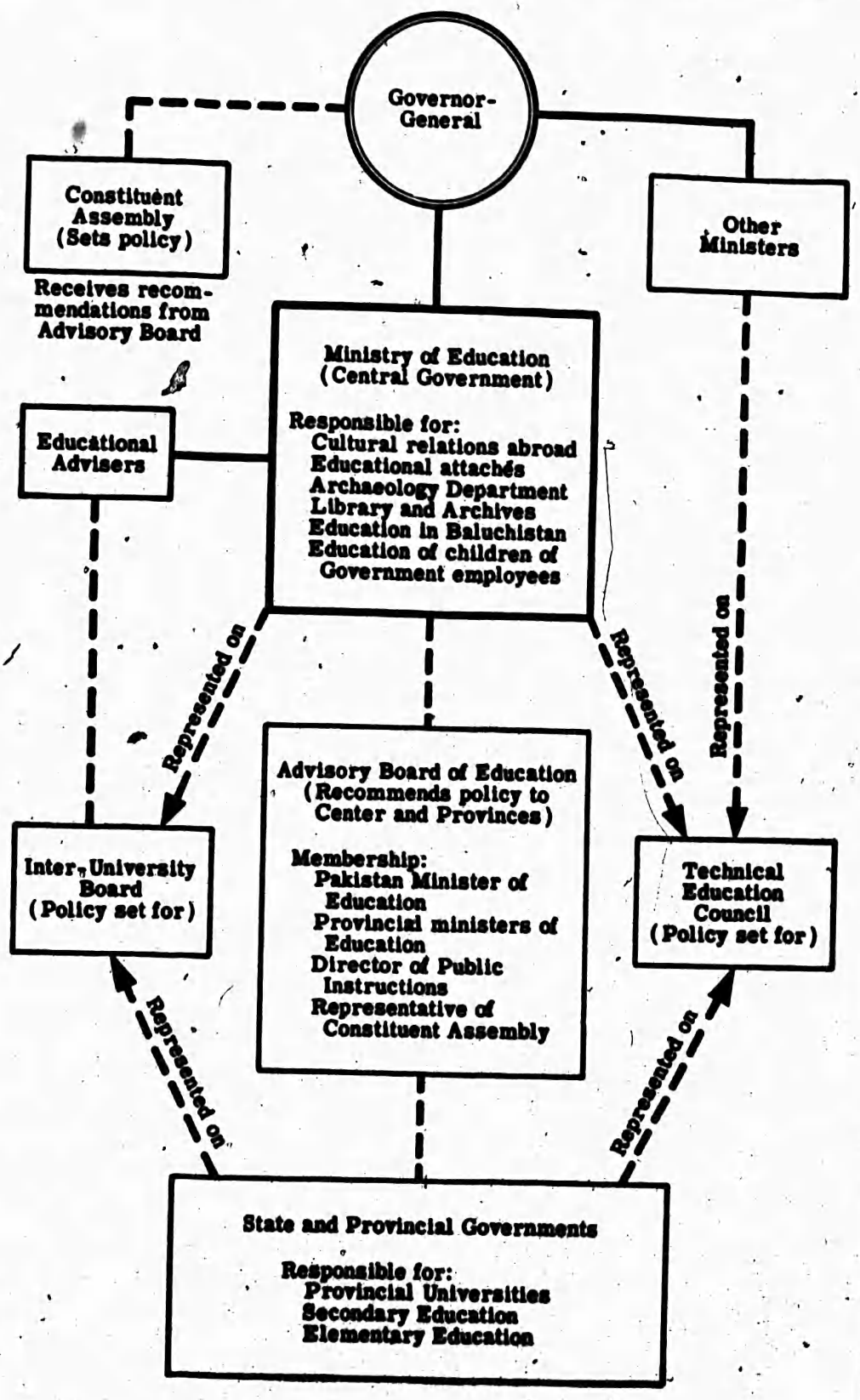
> Exchange of information and views among the universities of Pakistan, liaison with foreign universities, encouragement of private endowments, removal of interprovincial barriers and interuniversity competition, periodical visits to the universities with a view to coordinating their activities, equivalence of degrees and diplomas, standardization of curricula and syllabi, interchange of staff and students, and coordination of facilities for scientific and industrial research.[3]

[1] *Dawn*, the Pakistan newspaper, March 23, 1948.

[2] *Proceedings of the Pakistan Educational Conference*, held at Karachi November 27–December 1, 1947. Government of Pakistan. Ministry of the Interior (Education Division), Karachi, Government of Pakistan Press.

Chart No. 2.

ORGANIZATION OF EDUCATION ADMINISTRATION IN PAKISTAN



The board is a sort of self-governing body for the nation's universities, but it has no legal powers to enforce decisions in the event of a conflict. The Educational Adviser to the Government of Pakistan may attend the meetings but has no vote.

The Education division of the Central Government has a full-time staff of educational advisers who are specialists in various fields of education.

In addition to the advisory activities, the Central Government has other administrative responsibilities. The administration of education in Baluchistan, schools for refugee children and of government employees in Karachi, the proposed Institute of Foreign Languages and Iqbal Academy, the proposed Pakistan Academy, the Central Museum and Library, overseas scholarships, scheduled caste (untouchables) scholarships, and the educational uplift program for the "backward classes" are some of the direct responsibilities of the Central Government.

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Chapter Three

Kindergarten and Elementary Education

Kindergarten

Preelementary education in schools for children of kindergarten age (3 to 6 years) is still in its infancy in Pakistan. There are only a few thousand schools in the entire subcontinent, most of them in India. The majority of them are merely classes which are attached to certain schools. The Government of Pakistan maintains a few such institutions and encourages private agencies on a grant-in-aid basis. The private schools or classes generally are not properly conducted, the equipment is poor, and the staff not trained. Schools seldom keep records of children's health, interests, etc. The stay of Montessori in India a few years ago gave a great deal of impetus to the kindergarten education movement.

According to the official report (1951) the numbers of children of the age group 3 to 6 for certain sections were as follows: Karachi, 50,000; East Bengal, 3,000,000; Sind, 230,950; North-West Frontier Province, 458,605. Punjab, Tribal areas, Baluchistan, Bahawalpur and Khairpur had not supplied information on the numbers of this age group at the time this survey was made.

There are about 14 private and 3 Government-aided kindergarten schools or classes in the country, with a total enrollment of 833 students. The Expert Committee on Primary and Secondary Education, appointed by the Pakistan Educational Conference (1947), recommended that the Government should lead in the opening of a few kindergartens, but that their provision should be left to private agencies. Under the proposed plan, private agencies are considering the opening of 6 schools in Karachi, 8 in Sind, and 16 in East Bengal. It is assumed that private enterprise will continue to establish such schools. The present plan calls for a total Government expenditure of about 3,165,302 rupees in 1951–57, equivalent to about $945,000 at the official rate of exchange (3.35 rupees = $1, 1952 rate).

Elementary Education

Status Before Partition

Before the partition of the Indo-Pakistan subcontinent, apart from the few compulsory areas, attendance at school had been on a voluntary basis. The situation still exists in many parts of Pakistan. According to the report of the

Central Advisory Board of Education,[1] in 1940–41 compulsion was in force in 194 urban areas and 3,297 rural areas (comprising 14,501 villages) in British India. Of these, 66 urban and 2,908 rural areas were in the Punjab. It extended in no case beyond the end of the primary stage, i. e., class IV or V and, except in 23 areas, applied to boys only. Moreover, in none of these areas, even in the Punjab, was compulsion really effective. It could hardly be so where there was no organized system of trained attendance officers to see that children attended school and where the courts were not inclined to enforce the law.

The existing educational system in Pakistan dated from 1854, and its growth has been mainly a matter of artificial improvisation, which has been severely criticized by most of the Pakistani educators. Fazlur Rahman, Minister of Education, Government of Pakistan, in his address at the Pakistan Educational Conference in Karachi in 1947, in referring to the existing educational system, said: "It has no common faith or common body of principles to animate it and has conspicuously failed to inculcate and maintain the stern moral and intellectual discipline which is the hallmark of true education. Thus its products, with their minds crammed with an unassimilated mass of unrelated ideas and facts passing for knowledge, have gone out into the world only to discover that they are unfitted for the business of living."[2]

Stages in Present Elementary Education

The British system of education which Pakistan inherited after partition was not a system but a combination of several systems. In addition, these systems were constantly changing. While the central policy remained the same, the details of methods and administration were frequently altered. Elementary education was defined by the Indian Education Commission of 1882 as the instruction provided for the people in the vernacular in such subjects as would best prepare them for living.

Today the aim and the variation in stages are about the same in Pakistan elementary schools as then. There is variation in the length of the elementary stage and in the age level of pupils in the different Provinces. For instance, while in Sind the length of the primary or elementary stage is 4 years, in the North-West Frontier Province, Baluchistan, and the Punjab, it is generally 5 years, and in East Bengal it is being raised to 5 years. There is some uniformity in the length of the elementary education in large cities and certain large villages in the country, but in small villages and in rural areas, there is no uniformity at all. This is particularly true with respect to age level. Because of the differences in climatic conditions and certain traditional local holidays, there is also variation in the length of the school day and terms. Friday is the Moslem Sabbath day, hence a national holiday. In many localities, the schools also close either Wednesday or Thursday afternoons.

[1] *Post-War Educational Development in India*, Report by the Central Advisory Board of Education, Bureau of Education, Fourth Edition, January 1944, p. 1–92, Delhi, India, Manager of Publications, 1944.

[2] *Proceedings of the Pakistan Educational Conference* held at Karachi from November 27 to December 1, 1947, p. 1–80.

Elementary School Enrollment

The official provincial census for 1951, gives the total population of Pakistan as 75,636,000. The official statistics, assuming that children of the age group 6–11 constitute 12½ percent of the population, gives the total number of children of elementary school age as being 9,454,500. At the present, there are 40,295 elementary schools for boys and girls in Pakistan with a total enrollment of 3,212,312, of whom 297,818 are girls (See table 1.) According to these figures, approximately two-thirds of the children are not in school. Under the proposed *Six-Year National Plan of Educational Development for Pakistan*, the nation expects to open 24,027 new elementary schools with a total capacity of 3,751,070 pupils. The cost of establishing 24,027 new elementary schools is estimated to be 425,449,499 rupees (3.35 rupees=$1, 1952 rate).

Table 1.—*Population, literacy, elementary schools, and enrollment, by Province, 1951*

Province	Population			Percent of literacy	Number of elementary schools		Enrollment	
	Men	Women	Total		Boys	Girls	Boys	Girls
1	2	3	4	5	6	7	8	9
All Pakistan	**39, 783, 000**	**35, 338, 000**	**75, 131, 000**	**12. 8**	**35, 128**	**5, 167**	**2, 914, 494**	**297, 818**
Karachi	640, 000	478, 000	1, 118, 000	31. 3	150	78	28, 442	17, 883
Punjab	10, 041, 000	8, 773, 000	18, 814, 000	10. 2	5, 701	2, 064	370, 660	110, 818
East Bengal	22. 057, 000	20, 062, 000	42, 119, 000	16. 8	24, 318	2, 671	2, 178, 423	144, 242
Sind	2, 531, 000	2,088, 000	4, 619, 000	10. 8	2, 548	142	168, 657	7, 074
N. W. F. P	1, 715, 000	1, 524, 000	3, 239, 000	8. 5	1, 150	167	96, 373	13, 034
N. W. F. P. (Tribal areas)	1, 294, 000	1, 166, 000	2, 460, 000	1. 3	132	4	8, 342	216
Baluchistan	350, 000	272, 000	622, 000	10. 4	187	19	14, 320	2, 600
Bahawalpur	988, 000	832, 000	1, 820, 000	6. 0	618	12	31, 998	1, 555
Khairpur	177, 000	143, 000	320, 000	8. 8	324	10	17, 279	396

NOTE.—The population, area, and educational statistics presented in this bulletin are official calculations of various ministries in Pakistan. However, because of the paucity of statistical data and the variation in methods used in their preparation, most of the figures in the bulletin should be regarded as approximations or estimates.

Curriculum

The program of study varies slightly in different Provinces, sometimes in accordance with local need. It usually includes vernacular reading, writing, arithmetic with a certain amount of mental calculation, and some drawing. Lessons in nature study, crops, cattle, village map, and some village or shop accounts are also included in the curriculum. Instruction in hygiene and science is frequently included in the general reading book or in the object lessons. In the majority of areas, geography and history are compulsory subjects in the curriculum for the upper elementary grades. Table 2 shows course of study in classes I–V in the Karachi schools. The lack of proper textbooks and other materials of instruction—even the absence of such things as ordinary paper or pencils—has made the problem of elementary education in Pakistan schools extremely difficult.

Table 2.—*Elementary schools: Course of study in classes I–V, in the Karachi Federal Area, as approved by the Government of Pakistan*

Subject	Instruction in minutes per day, by grade				
	1	2	3	4	5
1	2	3	4	5	6
Religious instruction	20	20	30	30	30
Urdu or vernacular (Sindhi, Gujrati, Bengali, and English)	40	40	40	30	30
Arithmetic	40	40	40	40	40
Environment	60				
Handwork	20	20	35	30	30
Environment and hygiene		60			
Environment and geography and hygiene			60		
Geography				25	25
History				30	30
Nature study				25	25
Games	60	60			
Physical training			35	30	30

Administration

Education in Pakistan has usually been classified under two general categories: public and private. Public education is provided in public schools which are a part of the system and conform to the standards prescribed by the Central Government. They follow a course of instruction approved by the Government. Such public institutions are supported wholly or partly from public funds. These schools are open to all citizens regardless of caste, color, or creed.

Private education is provided in private institutions which are generally intended to give religious instruction of different kinds. These institutions are supported wholly or largely from private funds, and generally they follow a somewhat different course of instruction.

The public schools are managed by Native States Boards or by the Government. The privately managed institutions may either be aided or unaided by the Government and local boards. In several Provinces, elementary education is generally the responsibility of the local or municipal boards. Sometimes municipal boards have initiated and supported institutions higher than elementary schools. The local or municipal boards, in addition to maintaining and managing their own schools, aid a number of private institutions and also exercise limited control over them. Foreign missionary institutions are included among the schools aided. The schools aided receive grants from the provincial councils and district and municipal boards. There are various kinds of unaided institutions, but generally there seems to be a tendency of these so-called unaided or private schools to enter the list of the recognized public schools with private administration.

The responsibility for the greater part of educational administration in Pakistan still lies with the Provincial and State Governments. However, because of certain local problems, provincially administered education has often suffered from political manipulation and lack of financial support. Broad educational policies

have been outlined by the Central Government with little authority to enforce them in the Provinces. The local autonomy is carefully guarded wherever and whenever possible.

The advisory committees recommended by the 1947 Pakistan Education Conference are becoming increasingly important as guides to educational policy throughout the country. To a limited extent, these committees have been successful in influencing provincial educational policy.

Elementary education is financed through (*a*) State grants given to local bodies by the Provincial Finance Minister, (*b*) local bodies which set up their own rates, (*c*) student fees (mostly in private schools), and (*d*) other sources, mainly voluntary contributions or endowments.

Buildings

The condition of primary school buildings varies from Province to Province. Many of the school buildings which the writer visited had poor lighting and ventilation and inadequate space indoors or play area outdoors. In rural areas most of the schools are conducted in bamboo huts or mud huts, and many buildings are dilapidated. In large overcongested towns, such as Karachi, several elementary schools, besides being housed in unsuitable buildings, are conducted in double or even triple shifts. A number of elementary and secondary schools are housed in abandoned army barracks.

A coeducation primary or elementary school in West Pakistan

Under the new social uplift program, almost all Provinces have given high priority to the construction of new school buildings along modern lines. (See table 3.) It has been the custom of the area to carry on schoolwork in temples, mosques, dharmashalas (inns), and other public places.

Table 3.—*Elementary schools: Estimated cost of new and renovated buildings in 1953–57, by Province, in rupees* [1]

Province	Recurring	Nonrecurring	Cost of renovation
Total	**90, 857, 285**	**126, 068, 490**	**88, 698, 000**
Karachi	11, 901, 993	27, 753, 290	3, 875, 000
Punjab	28, 800, 000	12, 600, 000	1, 800, 000
East Bengal	22, 640, 000	60, 000, 000	25, 000, 000
Sind	7, 056, 000	12, 720, 000	900, 000
N. W. F. P.	4, 816, 512	3, 328, 200	22, 963, 000
Tribal areas (N. W. F. P.)	8, 237, 400	5, 804, 000	75, 000
Baluchistan	882, 000	2, 186, 000	.....
Bahawalpur	5, 896, 000	1, 609, 000	1, 200, 000
Khairpur	357, 480	90, 000	225, 000

[1] *Six-Year National Plan of Education Development for Pakistan* (Part 1), Government of Pakistan Education Division, Karachi, Government of Pakistan Press, 1952.

A rural elementary school in Lasbela State, Baluchistan, West Pakistan

Table 4.—*Elementary school teachers, distributed by Province, 1951* [1]

Province	Trained		Untrained	
	Men	Women	Men	Women
Total	**42,978**	**2,214**	**40,830**	**2,153**
Karachi	391	191	1,944	208
Punjab	5,899	1,479	22,548	610
East Bengal	32,451	185	4,003	1,637
Sind	2,002	127	531	114
N. W. F. P. (tribal areas included)	930	181	170	5
Baluchistan	246	47	583	43
Bahawalpur	229	4	170	32
Khairpur	234	..	381	10

[1] Official report of the Ministry of Education, Government of Pakistan, Karachi, 1952.

Teachers

There are 88,175 teachers in elementary schools, of whom 42,989 are not trained at all. (See table 4.)

Before the partition, the elementary teachers were generally trained in two different grades of institutions: (*a*) normal schools and (*b*) middle schools. The normal schools received candidates for training who had passed the middle vernacular standard (if such were available) and trained them for the position of assistant masters in the elementary department of secondary schools and principals of upper elementary schools. The minimum qualification of a teacher in elementary schools was about middle school education. The qualification of elementary school teachers in certain rural areas was considerably less than the middle school education. Those who had passed only the primary or elementary school examination could teach in three types of schools: (1) special classes attached to normal schools; (2) special schools of a lower grade; (3) certain select middle vernacular schools.

Chapter Four

Secondary Education

Organization of Secondary Schools

There are a number of different systems of secondary education in the Provinces. The point at which the elementary is articulated with the secondary also varies from Province to Province. There is also difference in the use of English as a medium in the secondary schools in the Provinces. Secondary school courses of the Punjab, East Bengal, and North-West Frontier Provinces last for 10 years as compared to 11-year courses in other Provinces. Secondary education is generally a combination of high-school stage and middle school and sometimes elementary stage. (See Chart 1.)

In general the middle schools may be divided into two main categories: Anglo-vernacular and vernacular. The aim of the Anglo-vernacular is to prepare students for university, while the vernacular is very largely a complete stage by itself. In the vernacular instruction is almost entirely through the mother tongue, whereas in the Anglo-vernacular English is a compulsory subject. However, the difference between these two types of schools seems to be slowly disappearing. The middle English schools, which are a type of Anglo-vernacular, cover roughly the years from 10 to 14 of the middle stage, and the high-school part covers the years from 14 to 17. The middle English school may include elementary classes, and the high school often includes the middle and sometimes even the elementary stages. These combinations of stages merely prepare the student for a final comprehensive secondary examination, and, hence, the stages merge with each other with considerable flexibility.

Aims

In general, English schools were originally started to satisfy the administrative needs of the East India Company. The knowledge of English was absolutely necessary for clerical or administrative posts which were in demand in those days. The introduction of the grant-in-aid system and the incorporation of Indian universities gave further impetus to secondary education. This type of education came under the direct control of universities through their matriculation examinations.

The primary aim of secondary education since 1854 has been to prepare the students either for university entrance or for clerical jobs. From time to time,

the problems of secondary education have been examined by several committees and commissions, and the issue has been the bedrock of many controversies. The domination of matriculation examinations by universities has been bitterly criticized.

In describing the status of secondary education in India, the Central Advisory Board Report of 1944 said:

> At present admission to higher schools is mainly determined by whether parents or guardians are in a position to pay the fees; little trouble is taken to ascertain whether those who seek admission are likely to derive full benefit from a high school education. Moreover, the high schools tend to regard all middle schools as potential feeders and there is hardly any attempt to differentiate between the middle school education which is meant to be a complete stage in itself, and that which is designed to prepare pupils for high schools.

The report continues:

> For some time to come it may not be practicable to make high school education either free or compulsory but if pupils are to be admitted by selection only, those without the necessary financial resources will have to be provided with free places and in many cases with maintenance allowances or stipends as well. It is only by the assurance of adequate financial assistance in necessitous cases that the selective process for High Schools can be carried out fairly and effectively.

The board said further that:

> . . . the High School education should on no account be considered simply as a preliminary to university education, but a stage complete in itself. While it will remain a very important function of the high schools to pass on their most able pupils to universities or other institutions of equivalent standard, the large majority of high school leavers should receive an education that will fit them for direct entry into occupations and professions. At the present, there is a tendency for the high school curriculum to be unduly dominated by the requirements of universities.[1]

Curriculum

The course of study in the lower middle school is very much the same as that of the vernacular elementary school. There are variations in the curriculums of both the upper middle school and high school throughout the country. Some of these middle schools are self-terminating, and others prepare pupils for high schools.

The Central Advisory Board Report of 1944 recommended that:

> . . . the high school course should cover six years and the normal age of admission should be about 11. Entry to high schools should be on a selective basis and high schools should be of two main types: (*a*) academic, (*b*) technical. The objective of both should be to provide a good all round education combined with some preparation in the later stages for the careers which pupils will enter on leaving school. The curriculum in all cases should be as varied as circumstances permit and should not be unduly restricted by the requirements of universities or examining bodies.

[1] *Post-War Educational Development in India.* Report by the Central Advisory Board of Education, New Delhi, India, Bureau of Education, 1944.

The Advisory Board of Education for Pakistan was of the same opinion regarding the objectives and course of studies in Pakistan secondary schools. The board announced that:

> To meet this criticism, which is just, attempts are being made to recast and diversify the contents of education, especially in secondary schools where the capacities and interests of pupils begin to manifest themselves and require proper nurture. "Technical" and "Composite" schools, where academic education will be given a markedly practical bias, are intended to sort out pupils according to their abilities and aptitudes. These schools, it is hoped, will save the country from a glut of the purely academic type of students who have had hitherto no profitable avenue of employment except the "white-collar" professions and who have often languished in unemployment because opportunities in the "white-collar" professions are limited.[3]

Table 5.—*Secondary schools: Program of studies in Karachi*

Subject	Times per week in 45-minute periods, by year					
	VI	VII	VIII	IX	X	XI
1	2	3	4	5	6	7
Total number of periods	38	38	38	39	39	39
Required subjects:						
Physical education	3	3	3	3	3	3
Urdu	6	6	6	6	6	5
Mathematics	6	6	6	6	5	3
General science	5	5	5	5	5	4
History	3	3	3	5	5	6
Geography	3	3	3			
Religious education	2	2	2	1	1	1
Art	2	2	2			
Practical arts	3	3	3			
Foreign or Pakistan languages (English, French, Persian, Arabic, Bengali, Gujrati, and Hindi)	5	5	5			
Elective subjects:						
First course				5	5	7
Second course				4	5	6
Third course				4	4	6

Alternative courses are provided in the Urdu language in the curriculum. Advanced Urdu is offered for those whose medium of instruction is Urdu; and elementary Urdu for those whose medium of instruction is either English, Sindhi, Gujrati, or Bengali. It is up to the principal of the school to adjust the time allotted to Urdu and other languages. In a school with a medium of instruction other than Urdu, five periods may be given to Urdu and six periods to the language which is used as the medium of instruction. Being the principal medium of instruction in secondary schools in Karachi, Urdu occupies a central position in the curriculum.

Outline of the Courses

Table 5 lists the subjects offered in the secondary schools in Karachi and tells how many times a week the classes meet. As basis for comparison and indica-

[3] *Six-Year National Plan of Educational Development for Pakistan*, Part

tions of standards set for certain secondary school subjects, brief accounts are given for a few of the subjects.

URDU

Aim.—The aim is to give pupils training in the comprehension of ideas, in properly arranging them in relation to other ideas, and in presenting them with clarity, correctness, and precision, orally and in writing. The teaching of Urdu as a required subject in this class is a continuation of the work done in elementary grade V, study of a prescribed textbook with clear understanding of the ideas and the interpretations of the passages in simple and correct language; simple letter writing; summarization of stories; simple descriptive and narrative composition on familiar subjects; and acquaintance with the functions of the broad elements of expression based on the reading materials.

Grade VI or first year lower secondary.—Classes meet 6 periods a week for students whose medium of instruction is Urdu.

Grade VII.—Classes meet 6 periods a week. The teaching in this grade is along the same lines as in grade VI. The course consists of the study of the prescribed textbook, written exercises based on the text, letter writing, and simple and descriptive essays on familiar subjects. Oral work consists of recitation, dramatization, dialog, debates, etc. The teaching of grammar is a continuation of the work done in the previous class, with the help of examples taken from the textbook.

A secondary school classroom, Karachi, West Pakistan

Grade VIII.—Classes meet 6 periods a week. The work in this grade is a continuation of the work done in the previous grade with interpretation of difficult passages with references to context and simple appreciation of the style of the writer of the textbook. Written work includes simple essay writing, use of new words, idioms, and phrases read in the book. Oral work involves answering of oral questions in the textbook, dramatization, and debates, etc.

Urdu (For Students Whose Medium of Instruction Is Not Urdu)

Aim.—The aim of teaching Urdu as a required subject to pupils whose medium of instruction is not Urdu is to enable them to read, write, and converse freely in Urdu in their everyday life.

Work in the grades VI–VIII, all of which have 6 periods a week, consists of learning of the alphabet through word formation, vocabulary related to the immediate environment and daily experience of the pupil, study of simple words, sentences, paragraphs, short simple stories, easy descriptive poems, free and fluent reading of the textbook, correct pronunciation, pause, modulation of voice, oral conversation, dramatization, dialog play, reading easy newspapers, and of writing simple letters, study of textbook, etc.

Mathematics

Aim.—The aim of teaching mathematics in classes IX, X, and XI, is to provide a course which will be useful to the pupils in the different walks of life. It is a unified course in which the various branches of the subject coalesce, and laborious formal proof and rigidly logical sequence are replaced by shorter methods, and by the demonstration of mathematical principles and their practical application. The weight given to the various branches of the subject is indicated as follows: Arithmetic, 45; algebra, 25; geometry, trigonometry, and mensuration, 30. Girls may take domestic arithmetic in lieu of geometry and algebra in all these grades.

Grade IX.—Classes meet 6 periods a week.

Arithmetic in this class includes preparation of income and expenditure statements, simple and compound fractions, invoices, average percentage, rates, taxes, insurance, and bankruptcy. Algebra includes simple factors, equations, and problems; geometry deals with the area of rectangles, squares, parallelograms, triangles, etc.

Grade X.—Classes meet 5 periods a week.

Arithmetic includes profit and loss, discount, stock, share, and exchange. Algebra deals with factors, simplification of fractions, simultaneous equations, and problems. Geometry includes volume and surface of cubes, cuboids, cylinders, cones, prisms, pyramids, and spheres, Pythagorean theorems, use of trigonometrical tables, angles, etc.

Grade XI.—Classes meet 3 periods a week.

Arithmetic includes miscellaneous work. Algebra deals with graph of a simple equation, drawing and interpretation of straight lines, and statistical graphs. Geometry deals with ratios and solutions of simple geometric problems.

Arithmetic for girls is somewhat different from that for boys. It is to provide practical information which will be helpful to them in maintaining household accounts. The course includes preparation of income and expenditure statements; invoice; simple interest with special reference to bank accounts, rates, taxes, stocks, shares, and preparation of household budget.

General Science

Aim.—The aim of the course of general science is to arouse the interest of the pupil in his environment and impart such knowledge of natural laws and their application as would make him "feel at home in the universe." The subject matter is treated as a coherent whole and is not divided into biology, chemistry, physics, etc. In grades IX, X, and XI some biology, physics, and chemistry are included.

Examinations

Before the partition of the Indo-Pakistan subcontinent, for the purpose of examination, the subjects were generally grouped in 3 main divisions: (*A*) 1, English; 2, vernacular composition and translation; 3, elementary mathematics; (*B*) 1, geography; 2, Indian history; 3, elementary sciences; 4, drawing; 5, physical training; 6, domestic economy and needlework (for girls); (*C*) 1, elementary mathematics and science; 2, algebra; 3, geometry; 4, physics; 5, chemistry; 6, botany; 7, English history; 8, classical and foreign vernacular languages; 9, commercial subjects; 10, shorthand; 11, typewriting; 12, bookkeeping; 13, commercial arithmetic; 14, geography, 15, agriculture; 16, music; 17, needlework; 18, dressmaking; 19, lacemaking, etc.

The subjects were not required, but all students were expected to take *A* and *B* groups and one or more subjects in the *C* group. An annual public examination was held in the subjects of the *A* group. There was no such examination in the subjects of the *B* group, because of the impossibility of fixing the standard which was required to enter any career. The *C* subjects included all the subjects in which proficiency in one or more was required to enter a university, a technical institution, or a business.

According to the 1952 report of the Board of Secondary Education of Karachi, the plan of the secondary school-leaving examination is as follows with the subjects for the examination divided into two parts:

I. The compulsory or required group consists of Urdu, mathematics, general science, history, and geography. The students are required to take a written examination in each course.

II. The elective group consists of languages, social studies, natural sciences, mathematics, art and music. The languages include Urdu, English, French, Persian, Arabic, Bengali, Sindhi, Gujrati, Hindi, Latin, and Sanskrit. The duration of the written examination in each of these languages is 3 hours, with 100 being the maximum grade obtainable.

The social studies consist of history, geography, elementary economics, and elementary civics. The written test on each course is 3 hours, and 100 is the maximum grade. The courses in the natural sciences consisting of physics, chemistry, biology, health science, and domestic science are treated the same as the social studies.

The mathematics test is divided into two parts consisting of (*a*) algebra, geometry, trigonometry, and mechanical drawing. The test will require 3 hours' test time with maximum grades being 100 distributed as follows: algebra, 30; geometry, 30; trigonometry, 20; mechanical drawing, 20; and (*b*) mensuration, mechanics, and statistics, which are also of 3 hours' duration and are given the following distribution of grades: mensuration, 40; mechanics, 40; statistics, 20.

Art and music include the following subjects: drawing, painting, designing, modeling, Indo-Pakistan music, and Western music. The duration of the test on each subject is 3 hours, with 100 the maximum grade.

The reorganization of the secondary education program has already been started in Pakistan. Almost all the high-school education boards and the universities are attempting to widen the scope of secondary school curriculums by introducing a number of cultural and vocational subjects.

Administration

Until recently the secondary schools were under the control of the Government and the universities. It seems they had suffered very much from the dual administration. Generally, the secondary schools were inspected both by the Provincial Departments of Education and by the universities. The conflicting authorities had created a good deal of friction and misunderstanding. At present, each provincial department of education prepares a list of the so-called accredited secondary schools, and the universities honor it by placing on their list of affiliated schools all such schools recognized by the departments.

There is still some confusion regarding the courses of study in some of the Provinces. The university prescribes the syllabus and textbooks for the two top classes of secondary schools, and the provincial department controls the curriculums in the lower classes. Secondary schools are maintained by the Government, District, and Municipal Boards, and private bodies. A large number of the State schools are located in the so-called backward areas. Since 1949, Karachi a Federal area, has had an autonomous board called Board of Secondary Education of Karachi, made up of representatives of universities, the department of education, and nongovernment educational institutions, which

Table 6.—*Secondary education, by Provinces and number of schools and enrollment, by sex, 1952* [1]

Province	Lower middle schools				Upper middle school				High schools			
	Boys		Girls		Boys		Girls		Boys		Girls	
	Number of schools	Enrollment	Number of schools	Enrollment	Number of schools	Enrollment	Number of schools	Enrollment	Number of schools	Enrollment	Number of schools	Enrollment
1	2	3	4	5	6	7	8	9	10	11	12	13
Total	**3,067**	**306,874**	**299**	**17,734**	**912**	**182,499**	**177**	**34,149**	**1,863**	**575,697**	**168**	**45,864**
Karachi	(2)	(2)	(2)	(2)	17	2,194	6	550	33	13,375	20	3,954
Punjab	(2)	(2)	(2)	(2)	712	150,162	144	30,951	290	203,421	68	24,887
East Bengal	2,756	278,650	279	15,834	(2)	(2)	(2)	(2)	1,427	316,940	66	14,260
Sind	55	1,277	3	103	30	2,293	3	241	36	11,961	3	871
N. W. F. P	168	19,944	15	1,615	70	14,610	11	980	51	19,184	10	1,820
Tribal Area (N. W. F. P.)	7	890	(2)	(2)	3	776	(2)	(2)	8	1,426	(2)	(2)
Baluchistan	(2)	(2)	(2)	(2)	13	2,296	4	329	9	663	1	72
Bahawalpur	66	7,354	2	172	63	9,869	8	902	16	7,104	(2)	(2)
Khairpur	15	559	(2)	(2)	4	299	1	196	3	958	(2)	(2)

[1] *Six-Year National Plan of Educational Development for Pakistan*, 1952.
[2] No data available.

prescribes the curriculum and syllabi for the secondary schools under the administration of Karachi.

Enrollment in the Secondary Schools

There are, at present, 6,486 secondary schools (lower middle, upper middle, and high) with a total enrollment of 1,164,142. Of these, 644 are schools for girls, with a total enrollment of 97,737. (See table 6.)

Under the proposed 6-year plan, the Government expects to open 721 secondary schools (479 for boys and 242 for girls) to accomodate 237,600 students (170,850 boys and 66,750 girls). The capacity of these schools would differ from Province to Province. Considering the requirements of a modern school, the total expenditure to be incurred on these new schools, including the improvement of existing ones, will be about 227,945,788 rupees.

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Chapter Five

Technical and Vocational Education

Development of Vocational and Technical Education

Pakistan like many other countries in Asia has taken much interest in the different phases of vocational and technical education, but it is a comparatively new development in the country's educational system. Before the partition, the Central Advisory Board of Education of India prepared a plan for the development of technical education and training. In 1941, the Bengal Industrial Education Committee also proposed a plan for Bengal. In later years, the Panel for Technical Education, constituted under the West Punjab Industrial Convention, considered the question of technical education and it also formulated a plan.

The report of the Consultative Committee of the Board of Education, usually called the "Spens' Report," advocated the widest variety in the curriculum for the high-school children and emphasized the cultural and vocational value of a "new type of school" called "Technical High School." This report stimulated action for establishing vocational schools.

World War II radically changed the industrial system in the Indo-Pakistan subcontinent. The report of the Central Advisory Board of Education of 1944 concluded that "In view of the prospective needs of post-war industry and commerce for skilled technicians, and in order to cater to the aptitudes of those who will derive greater benefit from a practical course, the establishment of an efficient system of technical education at all stages, on the lines set but in the report of the Technical Education Committee, is a matter of great urgency." [1]

Among the reasons for the lag in the development of vocational and technical education may be included: (1) the limited openings for employment in industry and commerce, and (2) the unwillingness of youth in the subcontinent in general, and upper- and middle-class Moslems in particular, to take up industrial occupations. The problem was discussed in detail by educators when the writer recently visited the newly established Technical High School in Karachi and schools in other parts of Pakistan. He learned that the prejudice against manual work persists in many parts of the country. However, the recent development of the nation's industry has created many attractive and lucrative employment

[1] *Post-War Educational Development in India*, January 1944.

opportunities for the young technically trained Pakistani, and this has started breaking down the prejudice against a vocational career.

The Committee of Technical Education

On June 11, 1948, the first meeting of the Committee of Technical Education (see chart 2) for Pakistan was held in Karachi. The committee considered a number of proposals and planned "to formulate a comprehensive scheme for the development of technical education covering all stages for all grades of technical personnel and to indicate which of the existing facilities for technical education are necessary." [1]

The committee recommended that technical high schools should be established all over the country to ensure proper development of technical education. It also stressed that there should be a new link between the elementary and technical secondary schools and that with coordination the student should be able to "select with better advantage any of the several openings available, such as entry in the intermediate courses leading to degree courses, the polytechnic industrial institutes, or apprenticeship in industry." This committee also endorsed the Government's recommendation that primary or elementary education, which forms a foundation for technical education, should be made compulsory.

Present Plans for Technical High Schools

At present the secondary education stage does not provide any technical courses. The proposed technical high schools will be treated as part of secondary education. They will have the same duration as the general high schools I–V classes (5 years) (see chart 1), and the certificate issued to the successful pupils will be treated as equal to the matriculation certificate under the present system.

The committee also recommended the establishment of trade schools designed especially for training of "skilled workers." The curriculums of such schools, would include a short period of training in industry after the student had completed the course. The graduates of trade schools would have sufficient training to understand clearly the working of machines and tools. Admission to these schools would be conditioned upon completion of the present middle stage, that is 7 years of total schooling. The duration of trade schools would be 3 years, including 1 year's training under factory conditions.

Artisan classes were recommended for training of semiskilled workers. Students with elementary school certificates would be admitted to these classes. Artisan classes would provide training in crafts in vogue and in demand in the locality. The length of the courses would vary according to the vocational standards required in the locality.

[1] *Report of the Technical Education Committee appointed by the Council of Technical Education for Pakistan*, Karachi, Government of Pakistan, Education Division, 1950.

Industrial Institutes

The committee has also recommended the establishment of industrial institutes. These schools would be designed to train people who intended to start small industries of their own, and would stress scientific and modern methods of production. The Pakistan Government has been very much interested in the development of native handwork or what is officially called the cottage industries. Throughout Pakistan, sale and display centers have been set up to show the local public as well as foreign visitors indigenous products, such as filigree work, camelskin lamp shades, woodwork, and embroidery. Technically, cottage industries are the direct responsibility of the Provincial and State Governments. The Central Government is, however, responsible for cottage industries in the areas administered by it, such as the Federal area of Karachi. To work out a coordinated plan of development, a Cottage Industries Advisory Committee, consisting of officials and private citizens, has been formed.

The duration of the course of study in the industrial institutes would be 2 years, and admission would be based on a high-school certificate. The graduate of these courses would be required to get 1 year's practical experience in an industry.

Administration

The administration of vocational and technical education has been discussed on many occasions in the Indo-Pakistan subcontinent. The report of the *Bengal Technical and Industrial Education Committee* analyzed the issue and argued against exclusive control of technical education by either the Education or the Industries Department.

At present, various authorities are controlling technical institutions in the Provinces. In West Punjab the Director of Industries controls the Engineering College and other industrial schools; whereas in East Bengal the Director of Public Instruction controls the Engineering College, but the Director of Industries controls the other industrial schools. Sind follows the same system as that in East Bengal.

Directorate of Technical Education

The Technical Education Committee in its 1950 report recommended

> The establishment of a Directorate of Technical Education under the control of the Ministry of Education of each Province. There would be a Director of Technical Education who would be the head of the department and would have adequate and competent staff to assist him in the discharge of his administrative functions. He would be assisted by a number of advisory committees, representing the appropriate agencies. For instance, there would be an advisory committee on engineering consisting of chief engineers and other competent authorities, as its members. Similarly, there would be a committee on which would be the Director of Industries with other experts to advise on all those matters which are directly concerned with the industries department. There would be at the top, the Minister of Education who would have an advisory council which would contain various interests such as Director of Public Instruction

Chief Engineer, and Director of Industries, representative of the legislature of the public industry. This advisory council would lay the general policy regarding the technical education.[8]

Technical Institutes or Vocational Schools

Navalrai Hiranand Industrial Academy.—This institution, located in Hyderabad, was established in 1944 by some local Hindu philanthropists. It is still managed by the original board.

The academy has the following departments: applied chemistry; fruit preservation; manufacture of soap, chalk, and drugs; radio mechanics; motor mechanics and commercial typewriting.

Instruction is given in Urdu by instructors who do not have the regular academic qualifications of their special field but who have established their usefulness through working and studying on their own. There are now about 20 students in the academy.

Victoria Jubilee Technical Institute at Sukkur.—This institute was established in 1894. Until 1946, the school was under the administration of a board with the local collector as its chairman. Since 1946, the school has been under the control of the Government of Sind.

At present, the school offers the following courses: general mechanics; carpentry; woodturning; art drawing; electrician's course; tin and coppersmith; electroplating; motor mechanics; molding and foundry.

The institute with its workshops has a capacity of 200 students, but the present enrollment is only 100. The medium of instruction is Urdu. The institute, being very close to the Government High School, has great potentialities for development and expansion.

Halford Technical School at Jacobabad.—The name of this institution has now been changed to *Jacobabad District Technical Institute and Industrial Home.* The teaching staff consists of one fitter and blacksmith; one carpenter; one woodturner, who also does lacquer work; an assistant who does repair work for the municipality; one weaver; and one attendant. The total enrollment of the school is 34 boys, distributed in different shops. The school is supported by a municipal grant, 4,000 rupees; District local board, 300 rupees; and grants from the Sind Government and District Development Association. The school has been in existence for over 50 years and has supplied large numbers of craftsmen to the local area.

Sir Ali Murad Technical Institute in Khairpur.—This institution has been functioning for about 35 years and is controlled by the Director of Public Instruction of Khairpur. The school gives instructions in the following fields:

[8] *Report of the Technical Education Committee Appointed by the Council of Technical Education for Pakistan,* Karachi, 1950.

blacksmith's work; trunk-making; carpentry; lacquer work; painting and polishing; weaving; tailoring; embroidery; pottery; carpet-making; and leatherwork. There are 59 students distributed in different classes, with carpentry and tailoring leading by a large margin.

Craik Technical Institute, the Institute of Dyeing and Calico Printing, Mayo School of Arts in Lahore, and *the Metal Work Institute* at Sialkot are all in West Punjab. These schools admit students who have passed the matriculation examination and offer 3 or 4 years of courses, training them as supervisors in industry. For instance, the Craik Technical Institute trains electrical and mechanical overseers.

The Government industrial schools located at Jhelum, Gujrat, Kasur, Lyallpur, Multan, Muzaffargarh, and Rawalpindi, offer 3-year courses for graduates of Anglo-vernacular middle schools and prepare craftsmen for different industries. Four Government industrial schools at Dera Ghazi Khan, Jhang, Montgomery, and Sargodha offer 1-year courses to students who have completed the primary or elementary schools. About half of these institutions are housed in rented buildings, most of which are not suitable to be used as schools. The majority of the teachers are not qualified, partly because most of the qualified non-Moslem teachers have migrated to India since partition. These schools do not have a proper textbook on any subject offered as a course. Industrial examinations are conducted by the Director of Industries in the area.

The following institutions are located in East Bengal: *Surma Valley Technical School* at Sylhet offers training in mechanical engineering, motor mechanics, woodworking, and weaving. The weaving is done on handlooms only. The facilities of the school in the course of motor mechanics are mediocre.

K. K. Technical School at Mymensingh is a District Board institution and receives grants from the Provincial Government. The school offers a 3-year course of training for artisans and mechanics. The school accepts orders from the townspeople since there is no well-equipped workshop in town or the neighboring area.

Edward Industrial School at Bogra, a Government institution, offers the following courses: motor mechanics, driving, carpentry, watch-repairing, blacksmithing, and tinsmithing.

B. I. Technical School at Rangpur also offers courses in carpentry and blacksmithing. Most of the schools in this area have very few students.

Among other schools in East Bengal which have some facilities to offer courses in various fields of vocational education may be included:

E. B. Technical School at Patna; *Elliot Technical School* at Comilla; also in the same city is the *Government Peripatetic Weaving School. The College of Commerce* at Chittagong offers day and evening courses in accountancy, stenography,

and typewriting. *The Carter Helping Hand* is a philanthropic institution which helps in the training of destitute women in the art of weaving, dyeing, and tailoring. *The Moslem Orphanage*, another philanthropic institution, has facilities to take care of 175 Moslem orphans, who are given training in weaving, carpentry, bookbinding, and tailoring. *Coronation Technical School at Khulna* is a District Board School subsidized by the Provincial Government. Most of the students admitted to the school are illiterate.

East Bengal Veterinary College at Comilla has a 3-year course, but no decision has yet been reached on whether the course will lead to a diploma or certificate. The school has three small buildings which are in very bad condition. There are no proper accommodations for classes nor for the staff. The school has no properly equipped library or laboratory.

Agricultural Institute at Dacca offers a 3-year diploma course in agriculture. The school has a small workshop which conducts experiments in designing of plows.

The Government of Pakistan Technical High School at Karachi was established in 1951, immediately after the afore-mentioned recommendation, as a model vocational school. This was the first step taken toward proper development of technical education in the country. The aim of the school is to provide general education with technical training which will enable the graduate of the school to enter an industry or to proceed to higher technical and scientific education. Through this model school, the Government is attempting to introduce the most modern type of technical or vocational education in Pakistan. The knowledge of pupils will not be restricted to books only, but will be broadened with the provision of a range of creative hobbies, outdoor visits to places of interest, and a liberal use of modern teaching aids, such as epidiascope, films, filmstrips, and charts. The classroom teaching will be supplemented by lectures and demonstration.

Chapter Six

Teacher Education

Old Social Attitude Toward Teacher

In the Indo-Pakistan subcontinent the teaching profession had a great tradition. An old master (teacher) was always respected and honored as a real father. In ancient India, "guru" held an important position in the society. The same opinion was held in Islamic tradition. In some Islamic countries school children memorized verses of the poet "Awhadi," of the 14th century, of which a partial translation in brief reads as follows: "Duties of Supreme Importance to Man: Duty to God absolute; duties to mother and father, to the teacher, to the King and the Prophet."

Generally, the success of the system depended to a great extent on the relations of the teacher and the students, the respect of the student for his "guru" (teacher) and the affection of the teacher for his pupil. Even the mightiest king often paid homage to the humble teacher. In more recent times it seems that the attitude of the people toward the teacher had gradually changed, and was followed by the idea that whoever knows something can teach it.

Status of Teacher Training Before the Partition

Before the partition, according to 1940–41 statistics, there were about 640 teacher-training institutions in Indo-Pakistan, and in that year, 19,392 teachers were trained. Out of 640 institutions, 612 were training schools which admitted students with only 6–8 years of schooling and generally offered 1 or 2 years of rather elementary training. The successful candidates were awarded the "Vernacular Teacher's Certificate" or the "Junior Vernacular Teacher's Certificate." The remaining 28 institutions were training colleges, and in 1940–41, they trained 1,413 teachers.

The training colleges as a rule were affiliated with universities, but they were usually situated as separate units. In some cases, these colleges provided instruction only at the secondary level. The duration of training at the university training colleges was 1 year for the high-school graduates, but some of them also provided facilities for research which led to the degree of bachelor of education. There was a separate type of institution, also called training college, which existed especially for the training of teachers up to matriculation and intermediate standards. The duration of training in these colleges was 1 year, and in some

cases, 2 years. The graduates from these institutions received teachers' certificates.

Recommendations of the Advisory Board of Education

In talking about the educational problems of the country with the staff of various ministries of education in Karachi and the Provinces, the writer was constantly reminded of the serious shortage of qualified teachers. Officials stated that a large part of the shortage was due to the extremely low salary. It also, in a way, is an indication of the failure of secondary and higher education to train qualified personnel. At present, the teacher's salary is a little higher than it used to be, but it is still very low. According to the old custom, the villages usually had a system by which the farmers took care of the teacher's board and room on a rotation basis. The tradition of low pay dates back to this old village system.

Teacher Education

The Advisory Board of Education, which was created some time after the partition, appointed a committee to study the teacher-education situation and suggest solutions to the problems. The duties of this committee were: (*a*) to classify teachers of different types and to determine the minimum educational and training requirements for each; (*b*) to make concrete suggestions for the institution of training courses; (*c*) to recommend in what form a roster of all teachers who are up to the standard should be maintained and to consider whether any allowance should be paid to registered teachers who are unemployed for lack of vacancies; (*d*) to suggest suitable scales of pay and other allowances; (*e*) to determine the channels of recruitment to ensure fair selection; (*f*) to fix the probationary period after which teachers should be made permanent; (*g*) to devise leave rules and to recommend attractive rules of disability and old-age pension or "provident fund"; (*h*) to recommend the maximum number of teaching hours per week and maximum number of students per teacher; (*i*) to recommend the lines on which a scheme of refresher courses and evening classes for teachers should be drawn up; (*j*) to consider the desirability of arranging for the exchange of teachers with other countries.[1]

Teacher Training and Qualifications

In January 1949, the special committee of the Advisory Board of Education set up the following minimum educational qualifications necessary for teachers at various levels:

Elementary schools (6–11 years): Matriculation and 1-year training course. Matriculation would represent roughly completion of 10 years of schooling.

[1] Government of Pakistan Press Release, June 7, 1948.

Middle schools (12–14 years): Intermediate and 1-year training course. Intermediate corresponds roughly to completion of 12 years of public schooling or regular high-school graduation.

High schools (15–18 years): "College graduation" and 1-year training course.

The critical shortage of qualified teachers made it necessary for the committee to make exceptions in both the elementary and the middle school qualifications. Holders of "middle-passes" and matriculation certificates were allowed to take the middle school teacher-training courses.

Salary Schedules

On the basis of the preceding qualifications, today the Pakistan teacher can expect the following salary scale as recommended by the Advisory Board of Education in January 1949:

School level	Present salary	Board scale	Teachers' idea
1	2	3	4
Elementary-school teacher	60 rupees ($18)	50 rupees ($15)	85 rupees ($25).
Middle-school teacher	60 rupees ($18)	75 rupees ($22.50)	125 rupees ($37.50).
High-school teacher	120 rupees ($36)	150 rupees ($45)	200 rupees ($60).

Women Teachers

The position of women teachers has also been considered seriously. It has been pointed out that women teachers have special aptitude for teaching young children, but the existing circumstances in the country do not allow for greater participation of this group in the teaching profession. At present, "for every 10 boys in Pakistan, only 1 girl goes to an elementary school, while for every 8 boys, 3 girls go to a middle school."[2]

To encourage women to accept teaching positions educators have proposed to set up teacher-training institutions in rural areas. The number of teachers required for the girls' secondary schools is estimated at 2,225, of whom 1,000 will be graduates. The supply is expected to be limited since, according to the official estimate, for every 24 men graduates there is 1 woman graduate. Furthermore, the large majority of women are not interested in careers.

Teacher-Training Program Under the 6-Year Plan

At present there are 125 training institutions for primary or elementary school teachers with an enrollment of 6,145. Of these, 16 schools are for women with a total enrollment of 676. The total number of training institutions for secondary school teachers is 11, with a total enrollment of 770. Of these, 4 schools are for women. (See table 7.)

Under the 6-year plan, the Government has proposed to establish 101 training

[2] *Six-Year National Plan of Educational Developments for Pakistan (Part II), 1952.*

institutions for elementary school teachers with a total capacity of 11,220, and 26 training schools for secondary school teachers with a total capacity of 2,350. The Education Division in the Central Government has estimated that the output of existing institutions for training of elementary school teachers during 1951–57 should be 37,210, while the output of the training institutions to be established during the period 1951–57 is estimated at 49,380. The total number of graduates of existing and new institutions by the end of 1957 will be 86,590. The Central Government is fully aware that, considering the requirements of the country, there will still be a large shortage of trained teachers. Officials hope that financial conditions of the Central, Provincial, and State Governments will, in time, permit carrying out the plan in a way to ease, at least partially, this serious shortage of trained teachers in many areas of the country.

Educators and Government officials believe that a large number of teachers and administrators in universities, colleges, and education departments throughout the country need to improve their qualifications and experience. The Government has proposed to provide comprehensive refresher courses for teachers already in service in all States and Provinces. Plans have been made to establish 261 centers for such refresher courses to train about 30,000 teachers. These are to be 3-month courses and will be a more or less permanent feature. The aim of the refresher course is to furnish the teachers with up-to-date information in various fields of education and to train them in an appreciation of the fundamental principles of Islamic ideology.

Shortage of Teachers

The 6-year national plan expects the elementary teacher situation to be as follows:

> In 1951–53, it is proposed to open 7,156 new elementary schools with a total capacity of 1,181,510 pupils. Assuming that there will be one teacher for every thirty pupils, the total number of teachers required for the new primary schools will be 39,383. In 1953–57, it is proposed to open 16,871 new primary schools with a total capacity of 2,569,560 pupils.
>
> This will require 86,011 new teachers. Thus the total number of teachers who will need to be trained at the end of 1957 will be 168,865 (including 43,471 untrained teachers in existing schools). The output of existing institutions for the training of preprimary teachers during 1951–57 is estimated at 37,210 teachers, while the output of new training institutions to be established in 1951–57 is estimated at 49,380. Thus the total output of existing and new training institutions at the end of 1957 will be 86,590. Considering that the total requirement of trained teachers is 168,865, there will be a deficit of 82,275 trained teachers. It is obvious that the training institutions, both existing and new, fall short of the demand for trained teachers and that these institutions will be required on a permanent basis. . . .[3]

Teachers' Pension

In most of the rural areas, the village school is the "outpost" of civilization, and the village schoolmaster may be entrusted with the postoffice work, which

[3] *Six-Year National Plan of Educational Development for Pakistan*, Part II, Karachi, 1952.

consists mainly of selling postal stamps and receiving and dispatching mail for the village. He receives a nominal monthly remuneration. In some places, this extra job may bring him more than his teacher's salary. It also creates a good deal of distraction from his regular teaching duties. Generally all Government appointees and most teachers under board service have a small old-age pension known as provident fund. In some Provinces, teachers are expected to pay a monthly annuity toward their pension.

Teacher-Training Institutions

There is not much variation between the courses prescribed in the different teacher-training institutions. Generally, they have a set of required subjects dealing with the principles or theory of education, methods of teaching, history of education, school management, and hygiene. In some schools, practical teaching (criticism of lessons) and demonstration lessons are also provided. In addition to the compulsory subjects, generally, students specialize in the method of teaching one or more of a number of optional subjects. Students must pass written and practical examinations separately.

Government Normal Schools and Elementary Teacher-Training Centers

There is a Government normal school in each of the following towns in the Punjab: Kasur, Narowal, Pasrur, Lakhar, Mianwali, Gujrat, Lala Musa, Shahpur Sadar, Kamalia, Muzaffargarh, and Multan, including a Government normal school for girls at Sharakpur, Kamalia, and Lala Musa. There is a Government girls' high school with junior vernacular training classes in Pasrur, Rawalpindi, Mianwali, Campbellpur, Jhelum, Muzaffargarh, Jhang, Montgomery, and Dera Ghazi Khan, including Lady Anderson Government Girls High School at Sialkot. The Central Training College and Lady Maclagan Training College for women, both located at Lahore and affiliated with the Punjab university, prepare secondary school teachers.

There is one Government secondary training college at Karachi, which is affiliated with Karachi University. In the North-West Frontier Province, there is a Government teacher-training school for men at Dera Ismail Khan and a Government teacher-training school for women at Peshawar. These two institutions prepare junior and senior vernacular teachers. Since 1950, the University of Peshawar of the North-West Frontier Province has established a department to train secondary school teachers.

In the Bahawalpur State, there are 3 teacher-training institutions, 1 located at Khanpur and the other 2 at Bahawalnagar. In Sind Province, there are 5 such institutions: 2 elementary Government training colleges, 1 for men and the other for women at Hyderabad Sind, and the other 3 are located at Sukkur,

Larkana, and Mithiani. In Baluchistan, there are 2 elementary Government teacher-training schools located at Quetta, 1 for men and the other for women.

There are 5 elementary teacher-training centers under the Inspector of Schools of Jalalabad Range, Sylhet; 7 such centers under the Inspector of Schools at Chittagong Range, Chittagong; 11 under the Inspector of Schools, Dacca Range, Dacca; and 10 under the Inspector of Schools at Bakerganj Range, Barisal.

Under the Inspector of Schools at Rajshahi Range, Rajshahi, there are 6 elementary teacher-training centers. Under the Inspector of Schools at Jessore Range, Jessore, there are 11 elementary training schools. In Dacca Range, Dacca, there are 5 such schools under the Inspector of Schools. There are 2 elementary training schools in the Rajshahi Range, Barisal. Under the Inspector of Schools at Rajshahi Range, Rajshahi, there are 10 elementary training schools. Aligonj Elementary Training School is in the Jalalabad Range, Sylhet. Under the Inspector of Schools at Chittagong Range, Chittagong, are Feni and Chittagong Elementary Training Schools.

The Elementary Training College, East Bengal, Mymensingh, and the Teachers Training College, Dacca, are affiliated with the University of Dacca and prepare teachers for secondary schools.

Primary Training College, East Bengal

The Primary Training College was established in 1948. It trains the staff of elementary training schools, nursery schools, and the primary inspectorates. It also conducts research and experiments in child study.

Admission.—Generally, candidates for admission must be graduates in "Arts and Sciences" (roughly 2 years of college work or the equivalent), and as a rule should not be over 35 years of age. The college does not charge a tuition fee.

Program of study.—There are two courses of study, one leading to the "Diploma of Education," and the other to the "Higher Diploma." The duration of each course is 1 academic year.

The contents of the two courses are as follows:

1. Diploma course:
   (a) Child development.
   (b) Principles of education (including physical education with special reference to elementary education.
   (c) Elementary education dealing with the mother tongue, arts and crafts, mathematics, science, social studies, movements.
   (d) Music and gardening.
   (e) Practical training in teaching.
   (f) College records.
2. Higher diploma course includes the following:
   (a) Developmental psychology (including test and measurements).
   (b) Practical child study.

(c) Teacher training.

(d) History of education or educational administration.

(e) An advanced study of a basic subject dealing with elementary education.

The "Diplomas" are graded either "First Class," "Second Class," or "Pass." In order to receive a "First Class" Diploma, the student must obtain at least 60 percent of the total maximum 400, 200, and 100 assigned to certain required course examinations. Those whose aggregate grade falls below 60 percent will receive "Second Class" Diplomas. A minimum of 40 percent is required to be placed in the "Pass" class. To obtain "proficiency" in any subject, including practical teaching, a student must receive at least 60 percent of the total grade assigned to that subject.

The trainees who have been successful in the "Diploma course," but do not proceed to the "Higher Diploma" course are considered eligible for appointment in a subordinate educational service in the inspectorate and the Government educational institutions. The holders of "Diploma Course" Certificates may be selected for appointment to the staff of the new training institutions and are usually appointed on probation for 2 years. While on probation, they are allowed to follow the program of work assigned as well as the prescribed courses leading to the "Higher Diploma in Education."

The Teachers Training College, Dacca

The Teachers Training College, Dacca, was founded by the Government in 1910 for the training of men and women teachers for secondary schools. The college follows a program of studies prescribed by the University of Dacca, which leads to the "Diploma of the Licentiate in Teaching," and the degree of bachelor of teaching. Candidates for master of teaching follow a 2 years' research course. The course of "Licentiate in Teaching" has been discontinued since 1933. The Armenitoal Government High School, which occupies the ground floor of the main college building, is attached to the college and is used as a demonstration school.

The college has a fairly good library and also has easy access to use of the Dacca University library facilities. It has an epidiascope for classroom use, and a telescope, a wireless receiver, and a gramophone for use in the teaching of English and Bengali.

The college is under the direct control of the Director of Public Instruction of Bengal and is maintained by the Government. The school year starts on July 2 and ends in the last week of April.

Admission.—Ordinarily admission is limited to Bengali residents, since the college is primarily intended for the training of teachers in Bengal and inspectors for the Bengal Department of Public Instruction. Admission is further conditioned upon completion of a course of studies toward bachelor of arts or bachelor of science examinations of the Universities of Dacca or Calcutta or similar recog-

nized institutions. All candidates are required to take a written "admission test". No applicant is admitted to the college unless he passes the admission test.

Program of study.—The course of study leading to the degree of bachelor of teaching extends over a year and consists of two parts, theoretical and practical. The theoretical course includes the following school organization: History of education, educational psychology, methods of teaching and curriculum construction, physical education, educational measurement, and general English. The practical course consists of practice teaching in some high school at Dacca.

Lady Maclagan Training College for Women, Lahore

This institution, affiliated with the Punjab University, prepares women teachers. The course of study leads to the bachelor of teaching degree of the Punjab University and the "Junior Anglo-Vernacular Certificate."

Admission and program of study.—The course of study leading to the degree of bachelor of teaching extends over a year and is open to any graduate of the University of the Punjab or any recognized university. The course prepares the student for a comprehensive external examination consisting of two parts: (1) theory; (2) practice of teaching.

The examination in theory covers the following subjects: Principles of education, educational psychology, general methods of teaching, school organization and administration, history of education, including special subjects selected from among 3 groups: (*a*) English, Urdu, and one classical language (Arabic or Persian); (*b*) mathematics, science, geography, history and civics, domestic science, physiology, and hygiene; (*c*) nature study, art (handwork), and Indian music.

Grading.—The maximum grade obtainable in each subject is 100. The minimum grade required to pass the examination in each subject is 33 percent. In the practical examination, the maximum grade obtainable is 200, with 40 percent minimum passing grade.

Government College of Physical Education

This institution, established in 1950, provides facilities for studying the different fields of physical education. It is the only college of its kind in Pakistan equipped with modern apparatus for gymnastics, including an outdoor and indoor gymnasium and swimming pool. The men's section of the college is located at Walton, Lahore, on the Lahore Cantonment Kasur Road, close to the city, and the women's section, for the present, is located in the city of Lahore.

Admission and course of study.—Students are admitted on the basis of the matriculation examination certificate. The college offers (*a*) 1-year senior diploma

course in English; (*b*) a 6-month junior diploma course, and the medium of instruction is Urdu; and (*c*) special certificate refresher course open to teachers, inspectors, or directors of physical education who are in service. The examinations deal with such subjects as theory of physical education, theory of games, theory of athletics, anatomy and physiology, hygiene, and swimming. The practical part deals with educational gymnastics, apparatus work, swimming, and military drill.

Central Training College, Lahore

This institution, affiliated with the Punjab University, is at present the only standard teacher-training school in Pakistan. The college trains (*a*) Anglo-vernacular men teachers for higher classes of secondary schools and students for the bachelor of teaching examinations of the Punjab University; and (*b*) certificated teachers for middle classes of the secondary schools in the Province.

Admission.—Applications of teachers already in service are submitted through the Divisions of Inspectors of Schools. The minimum qualifications for admission for the certificated teachers' class is a pass in the Intermediate Examination of any recognized university of Pakistan or India, while admission to bachelor of teaching class is conditioned upon completion of bachelor of arts or master of arts work of any recognized university in Pakistan or India. The period of training for each course extends over 9 months from June to May, excluding summer vacation from July through September.

Finance.—The college is maintained from provincial funds. It does not charge any tuition and requires only a nominal fee for certain incidentals from the bachelor of teaching candidates. Various scholarships are provided for deserving students. On entering the college, each student is placed under the special care of a member of the staff who acts as a tutor and supervises the general conduct of the candidate at the college.

Curriculum and examinations.—The program of study offered by the college prepares the student for a final comprehensive external examination. The examination as usual is divided into Part I, which covers the subject matter, and Part II, which deals with theory. The Part I of the bachelor of teaching examinations consists of seven required and one optional paper covering the following subjects: Principles of education, school organization and Islamiyyat, history of education, methods of teaching special subjects, educational psychology, and general methods of teaching. In addition, the candidate may select any three subjects from the following group A and B, but only one from Group A and the remaining from Group B:

GROUP A: English, Urdu, Persian or Arabic.

GROUP B: Mathematics, science, geography, history and civics, domestic science for women only, psychology, and hygiene.

OPTIONAL: Any one of the following subjects is considered as elective: nature study and everyday science, and art and educational handwork.

Part I or the practical phase of the examination deals with the practice of teaching. The maximum grade obtainable in all the subjects is 100 except in practice teaching which is 200.

Part II of the certificate of teaching examination also consists of seven required papers and one optional covering the following courses: Psychological basis of education, general methods of teaching, school organization, teaching of Urdu, teaching of English, physical education, teaching of mathematics, teaching of science, teaching of geography, teaching of history. The student may select any two from the last few subjects. The optional courses are: Art and educational handwork, blackboard drawing, and writing. The maximum grade obtainable is 100 on all the subjects, and 200 in the practice-teaching examination. The final examination in the practice of teaching is generally held a day or two before the subject-matter or theory examination.

Table 7.—*Teacher-training institutions and enrollment, by Province*

Province	Elementary education				Secondary education			
	Number of schools for—		Enrollment		Number of schools for—		Enrollment	
	Men	Women	Men	Women	Men	Women	Men	Women
1	2	3	4	5	6	7	8	9
Total	**100**	**16**	**5,469**	**676**	**7**	**4**	**599**	**261**
Karachi								
Punjab	11	13	1,360	572	(3)	(3)	303	226
East Bengal	88		2,791		[1]		80	
Sind	4	1	1,000	60	[1]		30	
N. W. F. P	1	1	85	30	1	1	96	35
Tribal Area (N. W. F. P.)								
Baluchistan	1	1	73	14				
Bahawalpur	3		120		1			
Khairpur	1		40					

[1] Coeducational.

Chapter Seven

Higher Education

Development

The higher institutions of learning in the Indo-Pakistan subcontinent today owe very little to the ancient or medieval centers of learning. The program of studies in such centers included Buddhism, astronomy, agriculture, astrology, etc. While some of these centers continued their work, particularly in the East and South, throughout the Middle Ages, the Moslem rulers encouraged the development and establishment of colleges (madrassehs) at such cities as Lahore, Delhi, Rampur, Lucknow, Allahabad, Jaunpur, Ajmer, and Bedar. The curriculum of these madrassehs or colleges included grammar, logic, rhetoric, law, geometry, astronomy, philosophy, theology, etc. The medium of instruction was mainly Arabic.

When the British replaced Moslem rulers, many decisive steps were taken at the Government level to introduce the English language and Western education in the schools and colleges of the Indo-Pakistan subcontinent. The Wood Memorandum of 1854, described as "the Magna Carta of English Education in India," recommended a plan of education far more comprehensive than those which had been set forth so far.

The English Court of Directors had felt that it was the proper time for India to establish universities in the subcontinent which might encourage a regular and liberal course of education by granting diplomas or degrees as evidence of attainment in the arts and sciences. They had agreed with earlier proposals to establish universities on the model of the University of London. The function of these institutions of higher learning was described as that of awarding degrees to persons who had studied in schools affiliated with these institutions and passed examinations prescribed and conducted by them. According to this dispatch a university might be created in any part of the subcontinent when there were a number of institutions which could prepare candidates for the university examinations. The dispatch laid down the administrative set-up of the university and also prescribed that "the affiliated institutions would be periodically visited by Government inspectors."

By 1856, the Government of India had approved the general plan, and drafts of bills for the establishment of these universities were soon prepared. The establishment of the first university in 1857 at Calcutta was followed by those at Bombay and Madras. Within less than a century 15 other universities came

into existence. As affiliating universities, these institutions did not offer courses but conducted examinations and regulated the admission of candidates through supervision of the places of instruction.

In recent years, important changes have taken place. A few of the affiliating universities have undertaken teaching responsibilities, created research departments, and provided dormitories and other residential facilities on their campuses. The Hunter Commission of 1882, the Universities Commission of 1902, the Sadler Commission of 1917, the Hartog Committee of 1927, and the Report of the Central Advisory Board of Education of 1944 have all left their mark on the growth and development of higher education in the Indo-Pakistan subcontinent. At the time of partition, there were 21 universities in India. Only three of these institutions—Punjab, Dacca, and Sind—remained in the territories comprising Pakistan.

The Punjab University

The Punjab University at Lahore was established by the Act No. 19 of 1882, which received the assent of the Governor General on October 5, 1882. In addition to its main function as an examining and affiliating institution, the university also provides instruction in the following departments: Journalism, German, French, Spanish, Russian, Urdu, Persian, Arabic, arts, mathematics, statistics, political science, economics, history, geology, botany physics, zoology, chemistry, chemical technology, pharmacy, pharmacognosy, physiology, pharmacology, physical education, and library science. Only three colleges are administered and maintained by the university at Lahore. They are: the Law College, established in 1906 for all examinations in law, including LL. M. examination; the Oriental College, established in the same year; and Hailey College of Commerce. A number of other colleges, affiliated with this university, prepare students for examinations conducted by it. Some of these colleges are Government institutions, and others are private enterprises.

Administration

Senate.—The chief governing body of the university is the senate. The members of the senate, called fellows, are: (*a*) The chancellor; (*b*) fellows nominated by the chancellor; (*c*) ex officio fellows; (*d*) 10 fellows elected by registered graduates; (*e*) 5 fellows elected by faculties. The ex officio members are: (1) Chief Judge of the High Court of Judicature at Lahore; (2) Bishop of Lahore; (3) Director of Public Instruction, Punjab; (4) 1 nominee of Azad Kashmir Government; (5) Director of Public Instruction, Bahawalpur States; and (6) 1 nominee of Bahawalpur State.

The Governor of the Punjab is the ex officio chancellor of the university. The vice chancellor is nominated by the chancellor. He holds office for 2 years from the date of his appointment, but can be reappointed on the expiration of the

term. The elected and the nominated members of the senate hold office for 5 years. They also can be renominated after the expiration of their terms.

The chancellor, or in his absence the vice chancellor, presides at the meetings of the senate. In the absence of both the chancellor and the vice chancellor, the members present at the meeting elect a chairman.

Syndicate.—The executive authority of the university is vested in the syndicate, which is constituted in the following manner: (*a*) 4 members are elected by the faculty of oriental learning, (*b*) 4 by the faculty of arts, (*c*) 3 by the faculty of science, (*d*) 2 by the faculty of law, and (*e*) 2 by the faculty of medicine. The vice chancellor is the ex officio chairman of the syndicate, and the director of public instruction, Punjab, an ex officio member. A new syndicate is elected in November each year, and its term of office begins the following January. Members of the senate are assigned to various faculties according to their qualifications. These faculties are as follows: Faculty of oriental learning, faculty of arts, faculty of law, faculty of medicine, faculty of science, faculty of agriculture, faculty of commerce, faculty of engineering, faculty of dentistry, faculty of veterinary science, and faculty of education.

Other important administrative bodies of the university are: boards of studies, the school board, and academic council.

Boards of studies.—The boards of studies consist of the university professors or in their absence, the head of the department; if there is neither, the instructor in the subject matter with which the board is concerned. There are six members elected every alternate year in the second half of March to take office on the following April 15. All these members are eligible for reelection unless they have ceased to be members of the faculty or degree teachers. The dean of each faculty fixes a date or dates on which meetings of the faculty are held to elect the boards of studies.

Boards of studies are elected by the following faculties: Faculty of arts in specified fields such as English, Latin, Greek, French, German, Hebrew, Bengali, philosophy and economics, Sanskrit, Arabic, Persian, Pushto, Punjabi, Hindi, and Urdu; faculty of oriental learning and arts, history; faculty of arts and science in the fields of mathematics, astronomy, physics, and geography; faculty of science, chemistry, botany, zoology, physiology, geology; medical faculty, medicine; faculty of science and medicine and pharmacy. Law, education, and agriculture are all represented in the boards of studies.

The duty of each board of studies is to recommend courses of study and reading; to frame, when necessary, model examination papers for the guidance of examiners; and also to decide on the objections raised by candidates or by the principal of any affiliated college to questions for any examination held by the university. Each board acts as a consultative body on all questions referred to it and may bring them to the attention of the faculty or faculties concerned. The subjects in military science, commerce, engineering, and veterinary science are outside the jurisdiction of the boards of studies. The examinations in these courses are conducted by their own individual faculties.

The school board.—The school board is responsible for conducting the matriculation and school-leaving certificate examinations. The board consists of the following members: Director of public instruction, Punjab (ex officio), as chairman, members of the art faculty, 2 members from the science faculty, 2 members from the oriental faculty, 3 principals from recognized high schools, and 3 members nominated by the Government from any faculty.

The board reports its findings and questions on the matriculation and school-leaving certificate examinations to the syndicate. It recommends the course of study and reading to be followed by candidates for the matriculation and school-leaving certificate examinations. The school board also reports on the conditions to be fulfilled and the tests to be passed by such candidates, and considers all recommendations on these examinations made by any of the boards of studies in a particular field.

Academic council.—The academic council is composed of the following members: Dean of university instruction, ex officio, chairman; the principals of arts colleges in Lahore which prepare students for degree examinations; university professors; university department heads of teaching subjects; 6 teachers of degree classes; 7 fellows of the university; 2 instructors nominated by the syndicate; and 2 principals of intermediate colleges.

The syndicate appoints the registrar or deputy registrar to act as secretary of the academic council.

The duties of the academic council are as follows: (1) To deal with all the instruction carried on in the university, including intercollegiate teaching; (2) to prescribe the courses of reading, the syllabuses, and the outline of tests for all examinations in the arts and science faculties, except those for the bachelor of teaching and a few other higher degrees; (3) upon the recommendation of the boards of studies and faculties and subject to the approval of the senate, to approve or reject any subject proposed by a candidate for a doctoral thesis in the oriental arts and science faculties; (4) to evaluate the work of any candidate completed in another recognized institution of higher learning and to decide on the equivalency of the corresponding work at the University of Punjab; (5) to recommend to the syndicate the creation or abolition of university teaching posts; (6) to recommend to the syndicate the making of grants to a department or college which would contribute to university teaching; (7) to frame the general university admission rules and regulations dealing with the principles and methods of examinations and rules for the appointment of examiners; (8) to propose for the consideration of the syndicate the distribution of new grants by the Government to the university and colleges for the development of university instruction; (9) to control, conduct, and manage the affairs of the university library; (10) to propose rules regarding the scholarships, exhibitions, student prizes, etc.; and to promote research within the university.

The professors or instructors are appointed by the senate on the recommendation of the syndicate.

All affiliated colleges report to the university registrar the name of every student admitted or readmitted to that college together with the registration fees.

Registrar and controller of examinations.—The registrar is the chief executive officer of the senate and syndicate or university. The duties of the registrar are as follows: (*a*) To receive all money paid to the university and acknowledge it by signing a receipt; (*b*) to make all disbursements on account of the university authorized by the senate or syndicate and sign such instruments as checks in this connection; (*c*) to conduct all correspondence relating to the university; (*d*) to maintain proper records of the proceedings of all meetings of the senate and syndicate and of all faculties and subcommittees; to be responsible for correct maintenance of records; to be custodian of all property of the university; and to have charge of the library as well; (*e*) to issue the notices of all the meetings of the senate, syndicate, faculties, and other groups; (*f*) to be responsible for the arrangements for conducting all examinations held under the authority of the senate, including the printing and issuing of examination papers.

Affiliated Colleges

The following colleges are affiliated with the University of the Punjab in Punjab:

1. Government Intermediate College, Campbellpur.
2. Government College, Dera Ghazi Khan.
3. King George Royal Pakistan Military College, District Ghelum.
4. Lawrence College, Ghoragali.
5. Islamia College, Gujranwala.
6. Zamindara College, Gujrat.
7. Government College, Jhang.
8. Government College, Montgomery.
9. Gordon College, Rawalpindi.
10. De Montmorency College, Sargodha.
11. Murray College, Sialkot.
12. Emerson College, Multan.
13. Government College for Women, Multan.

IN LAHORE:

1. Central Training College.
2. De Montmorency College of Dentistry.
3. Dyal-Singh College.
4. Forman Christian College.
5. Government College.
6. Hailey College of Commerce.
7. Islamia College.
8. Islamia College for Women.
9. Kinnaird College for Women.
10. King Edward Medical College.
11. Lady Maclagan Training College for Women.
12. Law College.
13. Lahore College for Women.
14. M. A. O. College.
15. Oriental College.
16. Punjab College of Engineering and Technology.
17. Punjab Veterinary College.
18. Talimul-Islam College.

IN LYALLPUR:

1. Government College.
2. Government Intermediate College for Women.
3. Punjab Agricultural College.

Examinations and Admissions

Both the matriculation and the school-leaving certificate examinations are held annually in two sessions on the first of March and first of August in such centers as are appointed by the syndicate. The examination held in March is

open to students who have prepared for it in a recognized school. The names of these students are submitted to the registrar by the headmaster or principal of the recognized school they have most recently attended. They must have completed roughly 10 years of formal schooling. A girl student must be at least 14 years old on or before March 15 of the year in which she is appearing for the examination.

The August examination is open to all students who have prepared for it through other means than attending a recognized school—such as private students and pupils of unrecognized schools. The examinations are both oral and written. Oral and practical examinations are held in the following subjects: Physics and chemistry, physiology, hygiene, agriculture, and elementary arithmetic.

The minimum grade required to pass each subject is 33 percent. To qualify for matriculation a candidate is required to pass in the following subjects: English, mathematics, and any two of the elective subjects. A student who has passed the school-leaving certificate examination is qualified for matriculation with credit if he passes in the additional qualifying subjects in a subsequent year and if he obtains 65 percent of the grades in those subjects.

Students receiving 65 percent or more of the aggregate grades in matriculation and school-leaving certificate examinations are placed in the "first division," those obtaining not less than 45 percent in the "second division," and all those below who have passed are placed in the "third division." The registrar publishes a list of all the students who have passed either the matriculation or the school-leaving certificate examination with the appropriate "division" in which they were placed.

Admission to the intermediate course of the university is open to those who have successfully passed the matriculation examination administered by the university or equivalent. Admission to its degree course is conditioned upon successful passing of the intermediate examination of the university or equivalent.

Degrees and Titles

The university offers the following degrees and titles: B. A.; B. A. Honors; B. T.; B. Sc.; M. A.; M. Sc. Honors, M. B.; B. S.; M. S.; M. D.; B. D. S.; B. Vet. S.; Arabic: Maulvi (Proficiency); Maulvi Alam (High proficiency); Maulvi Fazil (Honors); Persian: Munshi (Proficiency); Munshi Alam (High proficiency); Munshi Fazil (Honors). The same titles are also awarded in Urdu, Punjabi, and Pushto.

Enrollment

Students preparing for matriculation and intermediate or degree examinations are enrolled by recognized high schools and affiliated colleges, respectively. Those preparing for intermediate and degree examinations are registered by

the university. The enrollment figures are generally based on the number of students who participate in these examinations. The total numbers of candidates in various university examinations, by year, were as follows: 1950, 42,447; 1951, 46,674; 1952, 53,744.

The academic year is divided into three terms as follows: Winter term with short spring recess; summer term with summer vacation; autumn term with recess. The university year runs from the beginning of the autumn term to the end of the summer vacation. For university classes in the faculties of arts, science, oriental languages, and commerce, the school term may run as follows: Autumn term, September 14 or October 1 to the Christmas holidays; winter term, New Year to the end of March; spring recess, April 1 to 14th; summer term, April 15 to June 15 or 30; then summer vacation, June 15 or 30 to September 15 or October 1.

University of Dacca

University of Dacca was established in 1921 by the Dacca University Act of 1920 as a teaching and residential university. Under the provisions of the "East Bengal Educational Ordinance, 1947," which was issued by the Governor of East Bengal, the university was also given the "sole power and authority to recognize and affiliate all educational institutions in East Bengal, imparting instruction or preparing students for the degree, diploma, intermediate certificate, and matriculation examinations, including Bachelor's (Pass and Honors), Master's and Research degrees, diplomas or certificate in the subjects comprised

University of Dacca (Curzon Hall), Dacca, East Pakistan

in the Faculties of Arts, Ancient and Modern Languages, Architecture and Archeology, Law, Science, Medicine, Engineering, Agriculture, Veterinary, Pisciculture, Mineralogy, Journalism, and other general, technical and vocational subjects." [1]

The institutions which gave instruction in the fields mentioned above were formerly affiliated with the Calcutta University and controlled by the Central Board of Madrasseh Examination at Calcutta. With the promulgation of the 1947 ordinance, the executive council of the university was dissolved and was reconstituted. The vice chancellor of the University of Dacca is now president ex officio of the executive council. It consists of the following members: The director of public instruction of East Bengal, ex officio, 10 representatives of the University of Dacca, 3 representatives of the Government College of East Bengal, 3 representatives of non-Government colleges in East Bengal, and 7 representatives of other interests.

Administration

The following bodies constitute the university authorities: The court, the executive council, the academic council, and the faculties. The officers of the university are the chancellor, who is the Governor of East Bengal, the vice chancellor, the treasurer, the provosts, the registrar, and the deans of the faculties.

The court consists of the following persons: The chancellor, the vice chancellor, the treasurer, the registrar, the provosts and wardens, the professors, and the readers. These are Class I, ex officio members. Other members of the court are: Graduates of the university elected by the registered graduates from among their own body; persons appointed by the chancellor to be life members because of their distinguished service to education or the university.

The court has the following powers: Making, amending, or repealing university statutes; considering and canceling ordinances; considering and passing resolutions on the annual reports, the annual accounts, and the financial estimates.

The executive council, as the chief executive body, holds and administers the property and budget of the university. For these purposes, the council appoints from among its own members a finance committee to advise it on matters of finance. The university treasurer is the chairman of the finance committee. The committee reports annually to the local government the requests received by it for financial assistance from any institution associated with the university and administers any fund placed at the disposal of the university for any purpose.

The academic council, which includes the faculties of arts, science, law, medicine, agriculture, and engineering, is responsible for the maintenance of standards of instruction, education, and examinations within the university. It advises the executive council on all academic matters.

[1] *The Decca Gazette* East Bengal Educational Ordinance, September 12, 1947, published by the Government of East Bengal.

Affiliated Colleges

The affiliated colleges of the university are classified as "first grade" or "second grade" colleges. Those belonging to the "first" group prepare students for the "degree" examinations, while those in the "second" group train students for examinations up to the "intermediate in science" or "arts."

The following is a list of "first grade" affiliated colleges as of 1951–52:

Anandamohan College
Mymensingh

Asheq Mahmud College
Jamalpur, Mymensingh

Azizul Haq College
Bogra

Broja Mohan College
Barisal

Braja Lal College
Daulatpur, Khulna

Rrindaban College
Habibganj, Sylhet

Carmichael College
Rangpur

Chittagong College
Chittagong

Chaumuhiny College
Chaumuhiny, Noakhali

Davendra College
Manikghanj, Dacca

Edward College
Pabna

Haran Gana College
Munshi Ganj, Dacca

Feni College
Feni, Noakhali

Fazlul Haq College
Chakhar, Barisal

Kumudini College
Tangail, Mymensingh

Gurudayal College
Kishorganj, Mymensingh

Prafulla Chandra College
Bagerhat, Khulna

Rajshahi College
Rajshahi

Sir Asutosh College
Kanangupara, Chittagong

Victorial College
Comilla Tipperah

Nazimuddin College
Madaripur, Faridpur

Dacca Engineering College
Dacca

Jagannath College
Dacca

Government College of Commerce
Chittagong

Islamic Intermediate College
Dacca

Islamic Intermediate College
Chittagong

Michanel Madhusudan College
Jessore

Murarichand College
Sylhet

Rajendra College
Faridpur

Saadat College
Kartia, Mymensingh

Srikail College
Srikail, Tipperah

Women's College
Sylhet

Kushtia College
Kushtia, Khulna

Eden Girls' College
Dacca

Satkhira College
Satkhira, Khulna

Imperial Salimullah Intermediate College
Dacca

Lalif Islamic Intermediate College
Barisal

Nawab Faizunnessa Islamic Intermediate College
Paschimgoan, Tipperah

Surendranath College
Dinajpur

Seth Tularam Girls College
Narianganj, Dacca

Sirajganj Islamic Intermediate College
Sirajganj, Pabna

Shaheed Surawardy Islamic Intermediate College
Magura, Jessore

Sri Krishna College
Remidia, Faridpur

Sirajganj College
Sirajganj, Pabna

Following is the list of "second grade" colleges:

Adina Fazlul Haq College
Manakasha, Rajshahi

Basiruddin Memorial Cooperative Islamic College
Naogoan, Rajshahi

Chandpur College
Chandpur, Tipperah

Gaibanda College
Gaibanda, Ranjpur

Haji Asmat College
Bhairab, Mymensingh

Brahamanbaria College
Brahamanbaria, Tipperah

Nasirabad Islamic Intermediate College
Mymensingh

St. Gregori's College
Dacca

Nazirhat College
Nazirhat, Chittagong

Bhuapura College
Bhuapura, Mymensingh

Sunamganj College
Sunmaganj, Sylhet

Rajendra Kumar Girls' College
Khulna

Victoria College
Narail, Jessore

Dhanbari College
Dhanbari, Mymensingh

Gaffargaon College
Gaffaragaon, Mymensingh

Quaid Azam College
Dacca

Quaid Azam Memorial College
Gopalganj, Faridpur

Satkania College
Satkania, Chittagong

Narsingdi College
Narsingdi, Dacca

Holy Cross College
Tajgaon, Dacca

Examinations and Admission

Admission of students to the university is made by an admission committee appointed by the academic council. Only students who have successfully passed a "recognized intermediate examination" or its equivalent are eligible for admission to a degree course. The "intermediate examination" is generally taken after 2 years of study beyond the matriculation examination. For the purpose of admission to a course of study the intermediate examination, conducted by the board of intermediate and secondary education at Dacca and similar boards in other Provinces, is recognized as equivalent to the intermediate examination of a recognized university in the subcontinent.

For the purpose of admission, a student who has passed one of the following examinations is considered as having passed the "Intermediate Examination in Arts": (1) The matriculation examination of a recognized university in the subcontinent or of a recognized board of intermediate and secondary education; (2) the "Cambridge Higher School Certificate Examination" in Group II offering:

(*a*) Latin, French, or German or an oriental classical language; (*b*) English; and (*c*) two of the following subsidiary subjects: logic; mathematics; English history or English Colonial history, modern European history, Greek or Roman history (any two); and physics, chemistry, botany, or physical geography.

Similarly, those who have passed the Cambridge Higher School Certificate Examination in group IV, which is mostly science, are considered as having passed the "Intermediate Examination in Science." The minimum qualification for admission to the course at the university is the passing of the "Intermediate Examination" of any recognized university or board or an equivalent examination. A student may be registered as a research student with the permission of the academic council at any time of the year on the recommendation of the head of the department in which he plans to carry on his research.

University terms.—The university term covering three sessions, extends from July 1 to the following June 30. The three terms and vacations are as follows:

First term	July 1–September 6.
Autumn vacation	September 7–November 3.
Second term	November 4–December 23.
Winter vacation	December 24–January 10.
Third term	January 11–May 9.
Summer vacation	May 10–June 30.

Faculties

The university has six faculties or colleges: faculty of arts, faculty of science, faculty of law, faculty of medicine, faculty of agriculture, and faculty of engineering.

Faculty of Arts

The faculty of arts is composed of the following departments: Islamic studies and Arabic, Persian and Urdu, Sanskrit, Bengali, English language and literature, history and geography, philosophy, economics, political science, mathematics and statistics, and education and commerce.

Degrees.—The faculty of arts offers courses of study for the following degrees: Bachelor of arts, master of arts, doctor of philosophy, doctor of laws, bachelor of teaching, master of teaching, and bachelor of commerce. The degree of bachelor of arts is conferred either as a pass degree or a degree with "honors."

The program of studies for the pass degree of bachelor of arts extends over 2 years. The final degree examination is held at the end of the second year. One year of residence is required. The final examination comprises 1 paper on a modern Indian language and 9 papers on a group of 3 subjects. On each subject of the group 3 papers are written, each requiring 3 hours.

The following are the groups from which the student may select his set of examinations:

I. History, English, political science.
II. English, philosophy, political science.
III. English, political science, Sanskrit or Arabic, Persian, Urdu, Islamic studies or Bengali.
IV. Sanskrit or Arabic, Persian, Urdu, Islamic studies, Bengali, English philosophy.
V. English, philosophy, history.
VI. Philosophy, political science, history.
VII. History, political science, economics.
VIII. Mathematics, political science, economics.
IX. English, history, Sanskrit, or Arabic, Persian, Urdu, Islamic studies or Bengali.
X. English, economics, mathematics.
XI. English, economics, history.
XII. English, economics or Persian, Urdu, Sanskrit, Arabic, Islamic studies or Bengali.
XIII. English, mathematics, Sanskrit, or Persian, Urdu, Arabic, Islamic studies or Bengali.
XIV. History, economics, Persian or Urdu, Sanskrit, Arabic, Islamic studies or Bengali.
XV. History, economics, philosophy.
XVI. Economics, political science, philosophy.
XVII. English, economics, philosophy.
XVIII. History, economics, commerce.
XIX. Mathematics, economics, commerce.
XX. Economics, political science, commerce.
XXI. English, economics, political science.
XXII. Economics, mathematics and statistics.
XXIII. Political science, mathematics and statistics.
XXIV. Commerce, mathematics and statistics.
XXV. English history, geography.
XXVI. English, economics, geography.
XXVII. History, economics, geography.
XXVIII. History, political science, geography.
XXIX. English, political science, geography.
XXX. Economics, political science, geography.
XXXI. Economics, commerce, geography.
XXXII. Political science, commerce, geography.
XXXIII. History, commerce, geography.
XXXIV. Economics, mathematics, geography.

Ordinarily no modern Indian language other than Bengali and Urdu, for which teaching is provided in the university, is allowed for the examination for the pass degree of bachelor of arts. Students whose mother tongue is other than any modern Indian language in which the examination is held are given a special examination in a prescribed period of English literature in lieu of the modern Indian language test. The maximum grade obtainable in each written test is 100. The minimum passing grade is 33 percent in each subject and 36 percent of the aggregate marks. Students who have obtained 60 percent of the total grades and not less than 40 percent in each subject and in the university test in English composition are awarded a mark of "Distinction."

The program of studies for the degree of bachelor of arts with "honors" covers 3 academic years. Not less than 500 days of residence is required of candidates for the degree. The examination consists of 8 written tests, each of 4 hours, on the following subjects: Islamic studies, Arabic, Persian and Urdu, Sanskrit, Bengali, English language and literature, history, philosophy, economics, mathematics, political science, and 3 papers each requiring 3-hours in each of 2 subsidiary subjects.

The maximum grade obtainable in each subject is 100. Those who have obtained 60 percent, 45 percent, and 36 percent of the total grades, including 40 percent in the practical test in the honors school subject, philosophy, are placed in the 1st, 2d, and 3d classes or divisions, respectively. In each of the subsidiary subjects, the candidates must receive not less than 33 percent.

Degree of master of arts.—Students are admitted to the courses leading to the degree of master of arts after they have obtained the pass degree of bachelor of arts of the University of Dacca or any other recognized university. The program of study extends over 2 years. The examination for this degree consists of eight papers or tests. There is a choice of taking the examination in two parts. Part one may be taken at the end of the first year and part two not earlier than the end of the second year. Both parts of the examination may be taken together at the end of the second. Students must pass the part one examination before they can be admitted to part two.

The university also grants Ph. D. and D. Litt. degrees to students who have submitted a thesis, which must be a distinct contribution to the advancement of knowledge.

Diploma of licentiate in teaching.—The program of study for the teaching diploma extends over one academic year. It consists of two parts, theoretical and practical.

The theoretical part of the course consists of the following: Education in relation to mental development; school organization, discipline, and general principles of method; history of education; the content of the method of teaching two or more of the special subjects selected by the candidate with the approval

of the head of the department of education; and education in relation to physical development. The candidate is required to pass examinations in both practical and theoretical parts of the course. The degree of master of teaching is awarded to a holder of a bachelor of teaching degree who has also presented an acceptable thesis.

Degree of bachelor of commerce.—The program of studies for the degree of bachelor of commerce extends over 2 years. The examination covers the following subjects: Economics, economic geography, business organization (including commercial correspondence), trade and transport, modern economic development, commercial law, banking and currency, advanced accounting and auditing.

Faculty of Science

The faculty of science consists of the following departments: Physics, chemistry, mathematics and statistics, biology, and military science. This faculty awards bachelor of science, master of science, doctor of philosophy, and doctor of science degrees.

The program of studies for the "pass" degree of bachelor of science extends over 2 years. The degree examination is held at the end of the second year and covers three subjects in one of the following groups: A. Physics, chemistry, mathematics; B. Physics, chemistry, physiology; C. Physics, chemistry and botany; D. Physics, mathematics, statistics; E. Physics, mathematics, and geography.

The final examination in physics, physiology, and botany in each case comprises two theoretical papers, each of 3 hours, and a 6-hour laboratory examination. In chemistry, there are 3 written tests, each of 2 hours, with a 6-hour laboratory examination.

The course of study for the bachelor of science degree with honors requires 3 years. In this case, the final examination covers one major or honors subject, such as physics, chemistry, or mathematics, and two minor or subsidiary subjects. The scope of this examination is much wider than the examination for the pass degree. For instance, in physics there are 5 written tests and 3 days of laboratory examination, and in mathematics, 8 written tests.

The course for the master of science degree extends over 2 years. The examination for this degree is divided into two parts: Part I, which may be taken at the end of the first year, and Part II, which is taken at the completion of the second year. Students may take both of these examinations together at the end of the second year. This faculty also grants the degrees of doctor of philosophy and doctor of science to candidates who have received their master of arts or master of science degrees in mathematics and have submitted an acceptable thesis based on original research.

Faculty of Law

The faculty of law offers courses of study toward the bachelor of law, master of law, and doctor of law degrees. The course of study for the bachelor of law degree extends over 3 years and includes the following subjects: Jurisprudence and general theory of law, Roman law, historical and comparative law, Hindu law, history, source, family law, law of property, inheritance, gifts, debts, wills, and endowments; Moslem law, history, source, family law, inheritance, gifts, wills, and Wakf, mainly according to the Hanafi and the Shiah schools; law of real property and trust, including conveyancing, law of persons, law of transfer, law of civil procedures, including principles and practice of pleading, land law, criminal law, and criminal procedure, and principles of legislation.

Students are required to attend these courses before they are allowed to sit for the two examinations—the preliminary and the final examinations. The preliminary examination, given at the end of the second year, covers the following subjects: Jurisprudence, Roman law and law of persons, Hindu law, Moslem law, constitutional law, and history of English law. The final examination covers the following subjects: Law of contract and torts, law of real property, equity and trusts, law of transfer and succession, land laws of Bengal, law of crimes, law of evidence, and civil procedure.

The course of study or research for the degree of master of law extends over 2 years. The final examination covers seven groups of subjects as follows:

I. Jurisprudence: (1) analytical and philosophical, (2) historical and ethnological or theory of legislation.

II. Hindu law with reference to original authorities or Moslem law with reference to original authorities.

III. Roman law.

IV. Private international law.

V. and VI. Any two of the following: (1) Constitutional law and history, English and Indian; (2) history of English law; (3) law of contract and torts; (4) equity; (5) law of real property and Indian land laws; (6) law of transfer; (7) testamentary and interstate succession; (8) crimes and criminology; (9) select system of foreign law; and (10) law of evidence.

VII. Library examination.

The degree of doctor of law is conferred on a person who holds a master of law degree of any recognized university and who can submit an acceptable thesis based on original research. At least 2 years of research and residence are required of candidates who hold master of law degrees from institutions other than the University of Dacca.

Faculty of Agriculture

The faculty of agriculture, established during 1939–40, has the following departments: Biology and soil science agriculture, including animal husbandry.

The Bengal Agricultural Institute at Dacca is a constituent part of this faculty. The faculty awards bachelor of science and bachelor of agriculture degrees.

The course of study for the bachelor of science degree extends over 2 years. The final examination covers the following subjects: (*a*) Social science, including chemistry, bacteriology, physics, mathematics, and statistics; and (*b*) biology, including botany, zoology, animal physiology, and entomology. The examination is both written and practical.

The program of study for the degree of bachelor of agriculture extends over two academic years. The final examination, given at the end of the second year, covers the following subjects: Agriculture; animal husbandry, including dairy; chemistry and bacteriology; agricultural engineering; agricultural botany, including entomology, and mycology; and statistics. The examination is both written and practical. The former consists of 8 papers, each of 3 hours, and the latter lasts for 6 days, of 6 hours each.

Holders of the bachelor of agriculture degree from this university may be admitted to master of agriculture degree courses. They may receive the degree after 1 year's research in the following subjects: Animal husbandry, agricultural botany, entomology, and soil science.

Faculty of Engineering

The faculty of engineering, established in 1949, consists of the following departments: Civil engineering, mechanical engineering, electrical engineering, agricultural engineering, textile engineering, chemical engineering, metallurgical engineering, physics, and mathematics. The Ahsanullah School of Engineering, which soon after the partition was converted into a college and renamed the Engineering College, Dacca, is now considered a constituent college of the university. The principal of the Engineering College, Dacca, is now the head of the Department of Engineering.

Degrees.—The faculty of engineering awards the following degrees: bachelor of science in civil engineering, mechanical engineering, agricultural engineering, textile engineering, chemical engineering, and metallurgical engineering; and licentiate in civil engineering, mechanical engineering, and electrical engineering.

Admission.—Admission to the program of studies leading to the degree of bachelor of science in engineering is conditioned upon the candidate's passing the "intermediate science" examination of the University of Dacca or its equivalent. In addition, he must also pass an entrance examination which is supervised by the principal of the Engineering College at Dacca.

Program of study.—Courses of study for the bachelor of science degree in engineering extend over 4 years. An examination held at the end of each year

is known as "the first, the second," etc., including a final examination. A student must have attended 85 percent of the total number of lectures and other classes before he can be admitted to the examinations.

Examinations.—The examinations for the degree of bachelor of science in engineering consists of two parts. Part I comprises 25 papers or tests numbers I-XXV. At the end of the first year the student takes from I to XX tests and at the end of the second year from XI to XXV.

In order to take Part I and Part II bachelor of science examination in the various branches of engineering, the candidate must obtain not less than 40 percent of the designated maximum grade obtainable in each test and not less than 50 percent of the aggregate. Those securing 75 percent or above in the aggregate are classed as "honors," those receiving grades between 60 and 74 percent are placed in the "first class" or division, and the rest of the successful candidates are placed in the "second class."

Other Activities

Under the provisions of the East Bengal Educational Ordinance (Ordinance No. 1 of 1947), besides controlling the affiliated and constituent colleges and conducting the examinations for them, the university has to conduct the following examinations:

The Veterinary Examination.

The Sub-Overseership Examination.

The Survey Final Examination.

The Day-Course Examination of the Government College of Commerce, Chittagong.

A committee called the Bulletin Committee was appointed for the publication of original papers written by members of the staff and others connected with the university. The materials for publication are referred to this committee for approval. Thus far, 21 bulletins have been published. There are two manuscript committees—the Sanskrit and Bengali Manuscript Committee and the Arabic, Persian, Urdu, and Pushto Manuscript Committee. Both committees have collected a large number of valuable manuscripts.

The university is now arranging the collection and publication of old Bengali manuscripts written by Moslem writers. It is expected that these will throw some light on the social and cultural history of the Moslems of East Bengal. In 1935, the university approved a plan for the publication of a comprehensive history of Bengal in three volumes from the original sources. Of these, two volumes have been published, and the volume which will deal with the cultural history of Bengal under Moslem rule is under preparation, and its publication is expected in the near future.

University Extension Lectures

Each year the university arranges for members of the university staff to give a series of lectures which are open to the public. The lectures usually deal with matters of general interest.

University Library

The university library has about 150,000 books, including 2,500 manuscripts, most of which are in Bengali and Sanskrit. The library also has a large collection of Arabic and Urdu manuscripts mostly on the history of Bengal. It is also a depository library for United Nations publications. The library receives 376 periodicals for use in research work in science and arts. Only recently the library has begun to use the Dewey decimal system in its classification of books. Among the recent gifts to the library, the writer was told, were 300 books from the United States Information Service, Dacca, and 190 books from the World Students Service, New York. There are 39 people on the library staff.

Enrollment and Personnel

The total enrollment was 2,336 for the year 1951–52. The number of students in the affiliated colleges during the session 1950–51 was 13,888.

The total number on the teaching staff of the university is 199, which includes 17 professors, 32 readers, and 150 lecturers. There are 41 on the teaching staff of Dacca Medical College. The majority of the instructors of the medical college hold advanced degrees either from British or American universities.

The Dacca Medical College

The Dacca Medical College, one of the constituent colleges of the university was established in 1946. The college provides a 5-year program of studies and awards the degrees of bachelor of medicine and bachelor of surgery.

The program of studies.—Syllabus of anatomy during the first and second year includes 100 lectures, each an hour long, and covers the following: Embryology, osteology, arthrology, myology, blood vascular system, neurology, splanchnology and surface anatomy, with 4 hours daily per work week dissection during the two winter seasons.

During the first and second years, 100 systemic lectures, each 1 hour long on the heart and circulation, including anatomy of the heart, physiology of the blood tissue, fluid and lymph, temperature regulation, digestive system, metabolism, vitamins, endocrines, kidneys, nervous system, and elementary normal psychology.

The following courses are required:

Organic chemistry 1st year, 60 lectures, each 1 hour and 25 periods of laboratory work, each of 2 hours.

Pharmacology, 2d year, 10 one-hour lectures with 10 periods of laboratory work, each 1 hour.

Pharmacology and materia medica, 3d year, 40 lectures, each 1 hour, with 20 periods of laboratory work, each of 2 hours.

Experimental pharmacology, 3d year, 6 periods of laboratory, each of 2 hours.

Applied pharmacology and therapeutics, 4th year, 40 lectures, each of 1 hour.

Ward demonstration, 4th year, 16 demonstrations.

Pathology and bacteriology, the 3d and 4th years, 50 lectures, each of 1 hour.

Bacteriology, 3d and 4th years, 50 lectures, each of 1 hour.

Parasitology, 4th year, 30 lectures, each of 1 hour, and special pathology, 50 lectures and/or demonstration, each of 1 hour.

Laboratory methods during 3d and 4th years.—

Histiology, 40 lectures, each of 2 hours.

Bacteriology, 40 lectures, each of 2 hours.

Parasitology, 20 lectures, each of 2 hours.

Clinical pathology, 12 lectures, each of 2 hours.

Every student is required to attend at least 10 autopsies under supervision during the clinical period.

Forensic medicine during the 4th year, 30 lectures, each of 1 hour. During the 4th year, the student must attend 10 autopsies under supervision.

Practical identification of common toxic agents, public health and hygiene, 4th year, 40 lectures, each of 1 hour, including demonstration and field visits, 10 periods.

Medicine (infectious diseases, etc.) during 3d, 4th, and 5th years, 125 lectures, each of 1 hour. This includes medical radiology and physiotherapy.

Clinical medicine, 3d, 4th, and 5th years, 75 lectures and demonstration, each of 1 hour.

Clinical "clerkship" for a period of 9 months, of which 6 months must be spent in hospital wards and 3 months in the medical out-patient department, each student having not less than 5 beds under his charge during his indoor ward attendance.

General surgery, 3d, 4th, and 5th years, 125 lectures, each of 1 hour, in addition to clinical surgery during the same year, with 75 lectures and demonstrations, each of 1 hour.

Anesthetics, 4th and 5th years, 3 lectures each of 1 hour, with demonstrations.

Surgical anatomy and operative surgery, 5th year, 25 lectures, 1 hour each.

Radiography, the 5th year, 10 lecture demonstrations, each 1 hour.

Minor surgery, 3d year, 12 demonstrations, each 1 hour.

Midwifery and diseases of the new born, 4th year, 40 lectures, each of 1 hour.

Gynecology, 5th year, 40 lectures, each of 1 hour.

Clinical obstetrics and gynecology, including diseases of the new born, 4th and 5th years, 20 lecture demonstrations, each 1 hour, with 10 obstetrical demonstrations, each of 1 hour including practical work in a maternity hospital or ward for a period of at least 2 terms of 3 months.

Ophthalmology, the 5th year, 25 lectures, with 3 months' practical clinical training in a ward while taking the course.

Ear, nose, and throat, the 5th year, 12 lectures of 1 hour each. In addition each student is required to attend 6 practical demonstrations in dental surgery in the dental department of the hospital during the same year.

University of Sind

The University of Sind was established by the Sind University Act of 1947 which was approved by the Governor of the Province on April 3, 1947. It provides academic instruction for resident students and conducts internal and external examinations for its affiliated colleges. The university has the following faculties: (*a*) Faculty of arts (including commerce and teaching); (*b*) faculty of science; (*c*) faculty of technology (including engineering and agriculture); (*d*) faculty of medicine; (*e*) faculty of law; and (*f*) faculty of Islamic and other religious studies.

Administration

The university is under the jurisdiction of the following officers and authorities: The chancellor, the pro-chancellor, the vice chancellor, the registrar, the senate, the syndicate, the faculties, and the academic council. The chancellor, who is now elected by the senate, by virtue of his office is the head of the university. He presides at the meetings of the senate. The premier of the Province is the pro-chancellor of the university and acts as the head of the university in the absence of the chancellor. The vice chancellor is appointed by the chancellor from a panel of three persons recommended by the senate. The vice chancellor is responsible for the administration of the university. The registrar is appointed by the senate.

The senate is made up of university officials, including the chancellor, pro-chancellor, and vice chancellor; Sind State officials, including the minister of education, chief judge, chief engineer, executive head of the public health department, administrative head of the medical department, and the directors of agriculture, industry, and public instruction; the inspectress of girls' schools;

the director of public instruction of Khairpur State; principals of specified colleges; [2] university officials, if any; and the principal of Jamia Arabia, Hyderabad, Sind.

There are three advisory boards; (*a*) the Hindu Advisory Board; (*b*) the Christian Advisory Board; and (*c*) the Parsee Advisory Board. These boards advise the university on matters concerning these religions and their culture.

The university syndicate consists of the vice chancellor, the minister of education, the director of public instruction of Sind, and 12 other members elected by the Senate. The syndicate has the custody of the common seal of the university and authority to use it. It prepares the budget for the consideration of the senate and administers the funds and the property of the university and also has the responsibility of supervising the affiliated colleges. It publishes the results of the university examinations and other academic tests. Other important functions and duties are also assigned to the syndicate.

Affiliated Colleges

The colleges affiliated to the University of Sind are as follows: C. & S. Government College, Shikarpur; Government Arts College, Hyderabad, Sind; Law College, Hyderabad, Sind; King George V Institute of Agriculture, Sakrand; Girls' Intermediate College, Hyderabad, Sind.

Admission

Every candidate for admission to the university must have passed the university matriculation examination. A student from another university seeking admission to Sind University must apply to the registrar for an eligibility certificate. No student is admitted to any institution maintained by this university or affiliated with it unless he can present the certificate of eligibility from the registrar. Students who have passed the first-year science can be admitted to intermediate arts class, but those who have passed first-year art cannot be admitted to intermediate science class. The first-year courses in the intermediate arts, science, and commerce are not interchangeable.

The academic year.—The university year for all the faculties is divided into two terms. The first term starts June 20 and ends October 10; the second term starts on November 10 and ends March 10.

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[2] Specified colleges—Dayaram Jethamal Sind, Karachi; Dayaram Gidumal National College, Hyderabad; Dow Medical College, Karachi; King George the Fifth Agricultural College, Sakrand; S. C. Shahani Law College, Karachi; Nadirshah Eduljee Dinshau Civil Engineering College, Karachi; Secondary Training College, Karachi; Basantsingh Advani College of Commerce, Karachi; College of Commerce, Hyderabad, by rotation.

Examinations and Degrees

Candidates for the degree of bachelor of arts must have passed the matriculation examination, including three subsequent examinations. The first is called the "first-year examination," the second, "the intermediate arts examination," and the third is the examination for the degree of bachelor of arts. The course of study for the first-year examination extends over 1 year. A qualified student who has completed his course of study and satisfactorily passed the first-year examination may receive the "first-year certificate." After the student has studied for an additional year and passed the second or intermediate examination, he may obtain the intermediate certificate. The degree examination is given to a candidate who has passed the intermediate examination and has attended at least 4 terms or 2 academic years at the course of instruction in the subjects he is offering for the examination in one or more affiliated colleges.

A candidate may be admitted to master of arts (previous) examination after passing the bachelor of arts examination and after studying for about two terms at the university. After passing the master of arts (previous) examination the candidate for a master of arts degree must study an additional year and sit for the master of arts (final) examination. The holder of the master of arts degree may present himself for the doctor of philosophy degree examination after he has worked for at least 2 academic years under the guidance of a university teacher. He must also submit an acceptable thesis.

The following is the list of examinations conducted by Sind University:

Bachelor of teaching (B. T.), Part I and II.

Bachelor of science (Agriculture).

Matriculation.

School-leaving certificate (technical or vocational).

Bachelor of engineering (B. E.), civil, mechanical, and electrical.

Intermediate arts.

Intermediate science.

Intermediate commerce.

Bachelor of law first examination (First LL. B.).

Bachelor of Law second examination (Second LL. B.).

Bachelor of commerce (B. Com.).

Bachelor of arts (B. A.), compulsory group—pass and honors.

Bachelor of arts (B. A.), elective group—pass.

Bachelor of arts (B. A.), optional or elective group—honors.

Bachelor of science (B. Sc.), compulsory group—pass and honors.

Bachelor of science (B. Sc.), elective group—pass and other combinations.

Master of arts (M. A.), previous or first examination.

Master of arts (M. A.), final examination.

Master of science (M. Sc.) previous or first examination.

Master of science (M. Sc.) final examination.

First, second, and third examinations for bachelor of medicine and bachelor of surgery (M. B. B. S.).

First, second, and third professional examinations in medicine.

Diploma in library science (D. L. Sc.).

Doctor of philosophy (Ph. D.).

Bachelor of laws (LL. B.).

Master of laws (LL. M.).

The new so-called technical matriculation examination is more specialized and somewhat more difficult than the general or ordinary matriculation examination. The syllabus for the examination is so arranged as to prepare the students for the various fields in engineering. In addition to the subjects required for the ordinary matriculation examination it also includes physics, chemistry, and mathematics (algebra and geometry) as compulsory courses. However, the length of the examination and the grades assigned to each required course are the same in both examinations.

The first year arts examination (F. Y. A.) is conducted by the affiliated colleges on behalf of the university. The study comprises the following compulsory or required subjects: religion English and Urdu or Sindhi; and three elective courses selected from the following list: A classical European language a modern European language and a modern Indian language (excluding Urdu and Sindhi); Arabic, Sanskrit, Persian, history (general or Islamic history), mathematics, military science, geography, civics, economics, psychology, domestic science.

The intermediate arts examination is held by the university and covers the three required subjects and three electives, the same as in first year arts (F. Y. A.) substituting "Administration of Pakistan with special reference to Sind" for civics and adding logic to the list of electives or optional subjects for first year arts.

The "B. A. Pass Course" extends over 2 years and comprises the following subjects: Three required or compulsory subjects, the same as the "F. Y. A.," and intermediate; two electives or optional subjects from the following courses: History (general or Islamic), economics, philosophy, politics, mathematics, geography, military science, domestic science, English, Arabic, Sanskrit, Persian, Urdu, Sindhi, a classical European language and a modern Indian language (except Sindhi and Urdu). Only one language is to be selected from the list enumerated above.

The "B. A. Honors Course" is also a 2-year course. The three required or compulsory subjects are the same as in the "B. A. Pass Course." The examina-

tion for the honors course is much longer and covers more ground in the same subject than the pass course examination.

The university conducts bachelor of arts, both pass and honors course, examinations in the following fields: Economics, philosophy, logic, and psychology; politics, administration, and civics; mathematics, geography, English, Arabic, Sanskrit, Persian, Urdu, Hindi, and Gujarati.

The Master of Arts course extends over 2 years after the bachelor of arts (pass) or bachelor of arts (honors). The candidate selects only one of the following subjects for the examination: Indian or Pakistani languages: Urdu, Sindhi, Bengali, Marathi, Gujarati, or Hindi; Modern European languages, for example, English, French, German, Russian, Spanish, Italian, or Portugese; Arabic, Sanskrit, Persian history, Islamic history and culture, politics, economics, philosophy, mathematics, and geography. The examination is divided into two parts known as "M. A. Previous," which may be taken at the end of the first year, and "M. A. Final," which is conducted at the end of the second year.

The examination in "F. Y. Commerce," which may be taken at the end of the first year, covers the following subjects: English, including commercial correspondence, and one of the following languages: Urdu, Sindhi, Bengali, Hindi, Gujarati, composition English, religious knowledge, bookkeeping and commercial arithmetic, methods and machinery of business, economic and commercial geography, and mathematics or salesmanship and publicity.

The intermediate commerce examination is taken at the end of the second year and covers the following subjects: English commercial correspondence; religious knowledge; one of the following languages: Urdu, Sindhi, Bengali, Hindi, Gujarati, or English composition; commerce; economics; accountancy; mathematics or insurance; and secretarial practice.

The bachelor of commerce examination covers the following subjects: English or Urdu (essay and commercial correspondence), economics, currency and banking (principles), modern economic development, business organization, mercantile law, statistics or public finance, and one of the following special subjects: Accountancy and auditing; advanced banking; economics of cotton; public finance and administration; statistics and transport.

The bachelor of teaching course is a 1-year course, and the examination consists of two parts: Theoretical and practical. The theoretical part covers five subjects: Educational psychology, principles of education, history of education, educational administration, and practice of education (special methods). A 3-hour written examination on each subject is required. The second part of the examination consists of practical work.

The first-year science examination may be conducted by the affiliated college on behalf of the university. The examination covers the same required subjects

as in the F. Y. arts examination, with an optional group of three subjects from the following list: Mathematics, biology, geography, military science, or domestic science. Physics and chemistry are required.

The intermediate science examination is conducted by the university and is given 1 year after the F. Y. Science examination. The three compulsory or required subjects are the same as in the intermediate arts examination. The optional group of three subjects is selected from the following: Mathematics, biology, geology, geography, and domestic science. Physics and chemistry are required.

The bachelor of science course extends over 2 years. Here the compulsory three subjects are the same as in B. A. Pass course, but the optional or elective group requires selection of two subjects in science, one of the two being either chemistry or physics and the other a subject like zoology or geology.

The master of science course extends 2 years beyond B. Sc. pass or honors. The candidate for this degree selects one subject of the following for the examination: Mathematics, physics, chemistry, botany, zoology, microbiology, animal physiology, geology, and geography The M. Sc. examination is divided into two parts: Part I, also called "previous," is taken at the end of the first year, and Part II, or "final" examination, at the end of the second year. The M. Sc. may be taken in the following fields: Mathematics, physics, inorganic chemistry, physical chemistry, marine biology, microbiology, and geology.

The bachelor of science degree in agriculture requires 4 years of study after the matriculation examination. The course of "Intermediate B. Sc." extends over 2 years, and the student is examined in the following subjects: Agriculture, soil physics, advanced botany, advanced zoology, advanced chemistry, applied physics and mathematics, elementary veterinary science, and English. The final B. Sc. examination is given after 2 years of study. The examination covers the following subjects: Agriculture, soil science, plant pathology, horticulture, veterinary science, agriculture engineering, and agricultural economics.

The university also conducts examinations for the bachelor of engineering degree (civil, mechanical, and electrical). The first examination in engineering is open to candidates who have completed two terms in a college of engineering recognized by the University of Sind. This examination covers the following subjects: Mathematics, applied mechanics, surveying, machine drawing, engineering materials, electrical engineering, heat engines, workshop practice, and testing of materials. There is no examination on "testing of materials," but the student is required to present a certificate from the principal of the college showing that the course has been satisfactorily completed.

The second examination in civil engineering may be taken by those who have successfully passed the first examination and have completed an additional two terms in a college recognized in civil engineering by the university. This

examination covers the following subjects: Mathematics, materials and structures, hydraulics, construction (building), construction (foundations, docks, and harbors), surveying, drawing and design, heat engines, electrical engineering, testing of materials, workshop practice. The second examination in electrical and mechanical engineering is open to qualified students who have completed the two terms in a college recognized in mechanical and electrical engineering by the University of Sind.

The engineering candidates are examined in the following courses: Mathematics, materials and structure, hydraulics, heat engines, electrical engineering, radio communication, theory of machine metallurgy, testing of materials, mechanical technology and practice, foundations, and construction. The final examination for the degree of bachelor of engineering in civil, mechanical, and electrical engineering is given to candidates who have completed three terms in a college recognized by the university for civil, mechanical, and electrical engineering and who have successfully passed the first and second examinations described above.

Candidates for the degree in civil engineering are examined in the following subjects: Elements of economics, roads and town-planning, railways and bridges, quantity surveying and cost, geology, theory of structure, structural design and drawing, hydraulics, irrigation and storage, water supply and sanitary engineering, construction, and drawing and design. Candidates for mechanical and electrical degrees are examined in the following subjects: Elements of economics, materials and construction II, heat engines III, works organization and management, electric power (generation and transmission), electrical estimating, theory of machines II, hydraulics II, heat engines IV, electrical engineering III, electrical measurements and measuring electric power (utilization and traction), electrical design and drawing, machine design and drawing.

Candidates for bachelor of law degree must pass two examinations. The first examination covers the following subjects: Roman law and jurisprudence, constitutional law (English and Pakistan), the Indian Contract Act, crimes and criminal procedure, and English. The second examination includes the following: Mohammedan law, Hindu law, and the Pakistan Succession Act, equity with special reference to trusts, specific relief and mortgages, the law of evidence, civil procedure and limitation, the law of property, the law of contracts, company law, and the law of insolvency.

The examination for bachelor of medicine and bachelor of surgery degree consists of four parts: The first, second, third, and final professional examinations. The first professional examination is open to candidates who have (*a*) attained the age of 18; (*b*) studied during the academic years preceding the examination in a college affiliated with the university in the faculty of medicine; (*c*) passed, not less than 2 years previously, the intermediate examination of the science faculty of the University of Sind or its equivalent; (*d*) and studied for two aca-

demic years the following subjects: Dissection of the entire body, histology, elements of human embryology, the principles of general physiology including biochemistry and biophysics, elementary normal psychology, the normal reaction of the body to injury and infection, elements of the methods of clinical examination, an introduction to pharmacology. Every candidate is required to take two subjects of anatomy and physiology and pass in both subjects at the same time.

The second professional examination is open to candidates who have successfully passed the first professional examination provided they have attended not less than three-quarters of the full course of lectures delivered in subjects of the examination; namely: Pharmacology and materia medica, including pharmacological chemistry. The third professional examination is for candidates who have successfully passed the examinations described above and in addition have attended a recognized college for not less than 2 years and completed the following courses: General and special pathology and morbid anatomy, clinical and chemical pathology, elementary general bacteriology and parasitology, clinical bacteriology and parasitology, immunology and immunization, autopsy, including forensic medicine, toxicology, and hygiene.

The final professional examination is held twice a year and is open to candidates who have previously passed the third professional examination and who have been enrolled in a college recognized by the university during the academic year preceding the examination.

In addition, a candidate must produce evidence from the head of the college that he has been engaged in the practical work in a recognized hospital for a period of 3 years after passing the first professional examination and has undergone the following instructions: Systematic instruction in the principles and practice of medicine; a clinical clerkship for a period of 9 months, of which 6 months must have been spent in the hospital ward and 2 in the out-patient department; clinical clerkship of not less than 1 month in a children's ward or hospital; and 1 month in children's out-patient department; lectures and demonstrations on clinical medicine and attendance on general in-patient and out-patient practice during instruetions in therapeutics and prescribing, pharmacological therapeutics, physiotherapy and the principles of nursing, applied anatomy and applied physiology, instructions in diseases of infancy and childhood, acute infectious diseases, tuberculosis, psychopathology and mental diseases of the skin, leprosy, radiology and electro-therapeutics, theory and practice of vaccination, and surgery with continuous practical instruction lectures and demonstrations as an intern in a hospital or under supervision in various surgical methods.

The training may run concurrently with instructions in the following subjects: Ophthalmology, diseases of the ear and throat, venereal diseases, orthopedics, dental diseases, midwifery, gynecology, and infant hygiene. The

courses include practical internship in a hospital. The degree of "M. B. B. S." with honor is awarded to the candidate who has completed the curriculum in the minimum of 5 years and has passed all the professional examinations in the first attempt and has obtained an aggregate of 70 percent of the maximum grade assigned to each subject. The following is an outline of different tests with maximum grade obtainable in each course:

First professional examination	Grade
Anatomy:	
(One 3-hour written paper)	150
(Oral and practical examination)	150
	300
Physiology:	
(One 3-hour written paper)	150
(Oral and practical)	150
	300
Second professional examination	
Pharmacology and materia medica, including pharmacological chemistry:	
(One 3-hour written paper)	150
(Oral and practical examination)	150
	300
Third professional examination	
Forensic medicine and toxicology:	
(One 3-hour written paper)	75
(Oral examination)	75
	150
Hygiene:	
(One 3-hour written paper)	5
(Oral examination)	75
	150
Pathology, bacteriology and parasitology:	
(One 3-hour written paper)	150
(Oral and practical examination)	150
	300
Final professional examination	
PART I	
Medicine and diseases of children:	
(One 3-hour written paper and oral examination)	200
(A clinical and practical examination)	200
	400
Midwifery and gynecology:	
(One 3-hour written test and an oral examination)	200
(Clinical and practical)	200
	400

PART II

Surgery and operative surgery:	
(One 3-hour written test and oral examination)	200
(A clinical and practical examination)	200
	400
Diseases of the eye:	
(One 3-hour written test and oral examination)	100
(A clinical and practical examination)	100
	200
Diseases of the ear, nose and throat:	
(3-hour written test and oral examination)	100
(A clinical and practical examination)	100
	200

In all these examinations, generally a candidate who obtains 40 percent in written, 50 percent in practical, and 50 percent in the aggregate of each subject is declared successful. One who obtains 40 percent in written, 50 percent in practical, and 75 percent in the aggregate of any subject is considered as having passed the examination with distinction in that subject.

University of Peshawar

The University of Peshawar was established by the Peshawar University Act of 1950, which received the assent of the Governor of the Northwest Frontier Province on March 16, 1950. Under this act, the university was given the authority to "provide instruction in such branches of learning as the university may think fit and to make provisions for research and for the advancement and dissemination of knowledge and especially for technical and vocational education." It also will hold examinations and confer degrees, diplomas, and certificates to persons who have studied in the university or in its affiliated colleges. In establishing the university, its organization, administration, and its various authorities, the act follows the same pattern as exists in other established universities in Pakistan. The university has the following officers: Chancellor, vice chancellor, registrar, and deans of the faculties. Like other Pakistan universities, the authority is vested in the senate, syndicate, academic council, and faculties.

The university is supposed to provide the necessary higher education for a majority of the students from the tribal areas. Comparatively, these areas have very few established elementary and secondary schools.

Affiliated Colleges

The colleges affiliated with the University of Peshawar are as follows:

Government College, Abbottabad.
Government Intermediate College, Bannu.
Government College, Dera Ismail Khan.
Edwards College, Peshawar.
Government Frontier College for Women, Peshawar.
Government Islamia College, Peshawar.
St. Francis Xavier's College, Peshawar.

The affiliated colleges provide for the candidates of the bachelor's degree examinations in the Islamic arts and science faculties during the normal period of 2 academic years a minimum of 385 lectures in English, 250 lectures in mathematics, and 220 lectures in each compulsory arts subject, with science subjects to be supplemented with a minimum of 90 laboratory periods, each of 1½ hours. To the candidates of the intermediate examination in the Islamic arts and science faculties, the affiliated colleges deliver a minimum of 335 lectures in English, and 250 lectures in each compulsory arts subject. The science subjects require 60 laboratory periods of at least 1½ hours each.

Admission

No student is admitted to a course of study in the university leading to a degree unless he has passed the matriculation examination of the university or its equivalent. At present, the matriculation examination covers only 10 years of schooling.

The academic year is divided into 3 terms:

Autumn term	October 1 to December 23.
Winter term	January 8 to March 31.
Summer term	April 15 to June 30.

These terms are separated by two short recesses and one long vacation.

The affiliated colleges on hill stations follow a somewhat different school year schedule:

Autumn term	October 1 to December 23.
Spring term	March 1 to May 31.
Summer term	July 15 to September 14.

The exact dates of the different sessions are usually determined by the vice chancellor year by year.

Examinations and Degrees

All applications for examinations conducted by the university are addressed to the registrar of the University of Peshawar. Applications for permission for private candidates to appear in examinations must reach the university office by the first of December of the year preceding the examination in which the applicants wish to appear.

Matriculation examinations.—The matriculation examination is held annually in March at Peshawar and at such other places as are appointed by the syndicate. These examinations are open to students in the 10th class of recognized high schools, and to private candidates who have obtained permission to appear.

Boy students must have reached the age of 15 and girl students the age of 14 years on the 15th day of the month in which the examination is held.

The examination is conducted by question papers which are set up in every place where the examinations are held. There are oral and practical examinations on the following subjects: (1) Physics and chemistry; (2) physiology and hygiene; (3) agriculture; and (4) domestic economy for girls. In the subject of English, the questions are set in English; in the subjects of the classical Pakistani languages, the questions are set in Urdu. In other subjects, the student may answer the examination questions either in Urdu or in English.

Every candidate must offer five subjects: namely, the three subjects of Group I and any two subjects from Group II:

	Number of Papers	Maximum Grade
GROUP I:		
(1) English	2	200
(2) Mathematics (in the case of girls): Arithmetic, domestic arithmetic and household accounts	2	200
(3) History and geography	2	150
GROUP II (any two of the following subjects):		
(1) Pakistani language (Urdu or Pashto or French or German)	2	150
(2) A classical language (Arabic or Persian)	2	150
(3) Physics and chemistry: Written, Practical	2	150
(4) Drawing	2	150
(5) Physiology and hygiene: Written, Practical	2	150
(3) Agriculture: Written, Practical	2	150
(4) Domestic economy (for girls only): Written, Practical	2	150

The minimum grade required to pass in each subject is 33 percent. Those who have obtained 60 percent of the aggregate number of grades are placed in the "first division," those receiving 45 percent in the "second division," and all below 45 percent in the "third division."

The intermediate examination in the faculties of arts, Islamic theology, and science.—The intermediate examination is held annually at Peshawar and such other places as may be appointed by the syndicate for the purpose in April. It is open to students registered at any college affiliated with the university and to private students with special permission. Students wishing to appear in the intermediate examination should also have the following qualifications:

(1) They must hold the University of Peshawar matriculation examination certificate or the Cambridge school examination certificate, the Oxford school examination certificate, the London matriculation examination certificate, or any other certificate of examination approved by the syndicate.

(2) They must have studied at least 2 years beyond the date of passing any of the qualifying examinations. The 2 years of academic work must have been completed in an affiliated college or institution recognized by the syndicate. The full 2-year course of lectures prescribed for the examination should have been completed not more than 4 years previously.

English is the medium of examination in all subjects except in the classical and Pakistani languages. The medium of examination in the classical languages is either the classical language itself or a Pakistani language.

Subjects of examination.—The candidate in the arts group must offer four subjects: namely, English and one of the following languages: Arabic, Persian, Urdu, Pashto, French, or German, and two subjects selected from the following list: Mathematics, physics, philosophy, psychology, history, geography, economics, and civics. In addition to these, an additional optional subject selected from among Arabic, Persian, Urdu, Pashto, French, German, Islamiyyat, and an everyday science may be offered, provided it is not being offered as a compulsory subject.

Islamia College at Peshawar, West Pakistan

Those in the Islamic theology group should offer the following subjects: English, Al-Quran and Tasfir, Hadith and Fiqh, Arabic literature, and Islamic history (taught in Arabic). Every-day science may be offered as an additional optional subject.

Candidates in the science faculty must offer the following subjects in the examinations:

(1) Engineering group:
(a) English, (b) mathematics, (c) physics, (d) chemistry.

(2) Medical group:
(a) English, (b) physics, (c) chemistry, (d) biology.

In either of the preceding groups, an additional optional subject may be offered from among the following: Arabic, Persian, Urdu, Pashto, Islamiyyat French, and German.

The maximum grade obtainable is 150 in each required subject and 50 in the additional optional subjects. The minimum grade required to pass a course is 33 percent. To be successful in the intermediate examination a candidate must pass in each of the four required subjects. Thus, the grade in the optional subject does not affect the final result of the examination. The candidates who obtain at least 60 percent of the aggregate number of grades in all subjects, including the additional optional subject, are placed in the "first division." Those who receive at least 50 percent are placed in the "second division," and all the others who just pass the examination are placed in the "third division." Each candidate receives an official certificate showing the "division" in which he has passed the examination.

Bachelor's degree examination in the faculties of arts, Islamic theology, and science.—The examination for the bachelor's degree in the faculties of arts, Islamic theology, and science is held annually in April and September at Peshawar and at such other places as are appointed by the syndicate. The examination is open to students who have passed the intermediate examination of any of the affiliated colleges or the first examination in agriculture of the University of Peshawar or the equivalent of these examinations, provided the period between the date of passing the intermediate examination and the date of the bachelor's degree examination is not less than 2 academic years. Students are required to file an examination admission form at the registrar's office not later than the first of February for the April examination and not later than July 31 for the September examination.

Arts group.—The candidates in the arts group are required to offer three subjects, one of which is English and the other two selected from the following list: (1) one language, Arabic, Persian, Urdu, Pashto, French, or German; (2) mathematics; (3) statistics; (4) one science, physics, chemistry, botany, zoology,

or geography; (5) history; (6) economics; (7) political science; (8) philosophy; (9) psychology.

In addition to the three compulsory subjects, a candidate may offer an optional subject selected from the following, provided he is not offering it as a compulsory subject: Arabic, Persian, Urdu, Pashto, French, German, Islamiyyat, logic, and everyday science.

Islamic theory group.—Candidates in this group are required to offer the following subjects in their degree examination: English, Hadith and Fiqh, Al-Quran, and Arabic literature (including Islamic history), which is taught through textbooks in Arabic. Logic may be offered as an additional optional subject.

Science group.—Candidates in the science faculty are required to offer three subjects selected from the following list: Physics, chemistry, botany, zoology, mathematics, and geography. In addition to the three compulsory subjects, the candidate may offer one optional subject selected from the following: Arabic, Persian, Urdu, Pashto, French, German, Islamiyyat, or logic. Except in the classical languages, the medium of examination in all other subjects is English. In the Islamic theology group in the two subjects of Al-Quran and Arabic literature, the medium of examination is either Arabic or Urdu. In Urdu and Pashto, the medium of examination is the language itself. In the Islamiyyat the medium of examination is Urdu. In either group, the maximum grade allotted to each compulsory required subject is 150 and 50 to the additional optional subject. The minimum passing grade is 40. The candidates who receive at least 60 percent in all the subjects presented for the examination are placed in the "first division"; those who obtain at least 50 percent are placed in the "second division"; and all below this percentage are placed in the "third division."

First examination in agriculture.—This examination consists of two parts, which are known as Part I and Part II of the first examination in Agriculture. These examinations are also held in Peshawar. The Part I examination covers about 1 year of academic (after the matriculation examination) study completed in a college affiliated with the University of Peshawar. An examination admission form should be filed at the university registrar's office not later than March 6 of the year of examination with the required examination fee of 18 rupees. The subjects in which candidates are examined are agriculture, physics, anatomy and physiology of domestic animals, mathematics, and land surveying.

Final examination in agriculture (B. Sc.; Agr.).—The final examination in agriculture is also divided into Part I and Part II.

Part I of the final examination in agriculture is open for students who have passed the Part II of the first agriculture examination or those who have passed

the bachelor of science examination of the University of Peshawar after passing the intermediate science examination with physics, chemistry, and biology, and having further qualified in the written and practical tests of the subject of agriculture up to the standard of the "first examination" in agriculture, Part II.

Every candidate is required to appear for examination in the following subjects: English, agriculture, botany and applied botany, with chemistry, including agricultural chemistry, as subsidiary. The maximum grade obtainable in each subject is 100, with 40 being the minimum passing grade. In the practical examination 50 is the maximum grade obtainable.

Part II of the final examination in agriculture is taken after a candidate has had 1 year of academic work and has passed Part I examination. Every candidate is required to offer the following subjects: Agriculture, horticulture and applied botany, which are major subjects. Agriculture, zoology, entomology, and agricultural economics are offered as minor subjects.

The maximum grade obtainable in each subject is 100 in the written and 50 in the practical test, with 40 percent being the minimum passing grade in all subjects. Those who receive at least 60 percent of the aggregate number of grades of the total result of Part I and Part II examinations are placed in the "first division," and those receiving 50 percent are placed in the "second division," and all below these percentages who passed are placed in the "third division."

Examination for the degree of master of arts.—This examination is open to candidates who have passed the bachelor's degree examination and have studied for an additional 2 years in their field of specialization in a university teaching department. Attendance of at least two-thirds of the lectures and the seminars is required. The regular examination admission form and an examination fee of 56 rupees must be sent to the registrar's office not later than February 1 of the year of the examination. The medium of examination is English in all subjects except classical and Pakistani languages, in which the medium is either the language itself or a recognized Pakistani language.

The examination for the degree of master of arts consists of two parts, known as the "previous" and "final" examinations. The examination is open to students who have passed the bachelor's degree examination. The course of study for the degree of master of arts extends over 2 years. The student may take the "previous" examination at the end of the first year and the final at the end of the second year. Every candidate is required to take only one subject which may be selected from the following: Mathematics, economics, or any other subject approved by the university syndicate. The examination includes three written papers and one oral of about a half-hour duration. The maximum grade obtainable is 100, with 40 percent being the minimum passing grade in two papers and 35 in the third.

There are four written papers in the "final" examination, with an oral test of about one-half hour. The method of grading is the same as in the "previous" examination. For the purpose of determining success in the "M. A." examination, the percentage required in the aggregate of the two results must be 45. The students who obtain an average of 65 percent in the combined results are placed in the "first class," and those with 50 percent average are placed in the "second class," and all below these averages who pass, in the "third class."

The university also grants the degree of doctor of philosophy in the arts faculty. The advanced course of study in the subject selected by the candidate for the doctor's degree extends over 3 years after the "M. A." examination. A written and oral examination is required on the subject of the thesis. The thesis must be submitted within 3 years of the date on which the subject for thesis was approved by the academic council.

The examination for the degree of bachelor of law.—The university grants the degree of bachelor of law to students who have passed the "B. A." degree examination and have successfully completed the required course of study at the faculty of law of the university. The program of study in the faculty extends over 2 years. The examination is divided into two parts. The "first" examination in law is given at the end of the first year and includes the following subjects: Islamic jurisprudence, jurisprudence and Roman law; (2) Constitutional law, (*a*) England, (*b*) India, (*c*) Pakistan and other Islamic countries; (3) Hindu law, Moslem law, and some chapters of the Pakistan succession act; (4) law of contract and torts; (5) the civil procedure code, N. W. F. P. courts regulations and the arbitration act; (6) criminal law and procedure and the Quramic law of crimes. The final degree examination includes the following subjects: (1) Principles of equity with special reference to mortgages and trusts and the transfer of property act; (2) the Punjab Land Revenue Act and the N. W. F. P. Pre-emption Act; (3) mercantile law; (4) the Indian evidence act and the Indian limitation act; (5) Minn acts: the majority act, the court fees act, the suits valuation act, the registration act; (6) public international law and private international law; and (7) pleading and conveyancing.

Examination for the degree of bachelor of teaching.—This examination is open to students who have passed the bachelor's degree examination and have successfully completed a 1-year course at a teachers training college. The examination in the theoretical subjects is held in April and that in the practice teaching in June. The course examination consists of seven required papers and one optional paper, each paper or written test being of 3 hours. The theoretical examination covers such courses as educational psychology, principles and methods of teaching, principles of education, school hygiene, history of education, methods of teaching special subjects and any three of the following subjects: Group I, English, Urdu, Arabic, and Persian; Group II, mathematics, physical

science, geography, history and civics, and domestic science (for women only). Only one subject is selected from Group I.

The examination in the practice teaching consists of two parts: (1) A report on the candidate's practical work as carried on under the supervision at the training college and (2) practical skill in teaching as shown in two lessons in two different subjects given in the presence of a board of examiners. In all subjects the maximum grade obtainable is 100 with 40 percent the minimum passing grade.

There are "honors" schools in certain faculties which are under the immediate control of the university. Generally, the students taking the "honors" course do a little more independent work, and the length of every honors school course for the bachelor's degree is 3 years instead of the regular 2 years.

Enrollment

The total enrollment for 1951 including the affiliated colleges was 4,719. The number of students who participated in the 1951 university examinations were as follows: Matriculation, 3,785; intermediate arts, 366; intermediate science (pre-medical), 99; intermediate science, 173; bachelor of arts, 152; bachelor of science, 10; bachelor of teaching, 21; others, 103.

University of Karachi

The University of Karachi was established in 1950 by an act of the Pakistan Constituent Assembly which was approved by the Governor-General of Pakistan on October 23, 1950. It is an affiliating and examining university but also provides instruction in various colleges. The following faculties are included in the university: Islamic learning, arts, science, law, medicine, education, agriculture and forestry, engineering and technology, and commerce.

Administration

By law the university has the following important officers: Chancellor, pro-chancellor, vice chancellor, treasurer, registrar, deans of faculties, heads of teaching departments, librarian, principals of colleges, provosts of halls, and proctor. The duties and functions of these officers are the same as those of their coordinates in other Pakistan universities.

The members of the senate of the university include the 11 chief university officers, a number of private citizens, top Government officials, such as the Chief Justice of Pakistan, the Director of Health, Chairman of the Tariff Commission, Director of Scientific and Industrial Research, the Governor of the State Bank of Pakistan, Chairman of the Central Engineering Authority, the Vice Chancellor of Peshawar University, and a number of other distinguished citizens, making a total of 56 persons.

The university is placed within the jurisdiction of the senate, the syndicate, the academic council, and the faculties. These are known as the authorities of the university.

Colleges Under the University of Karachi

The following colleges are now under the supervision of the University of Karachi:

D. J. Sind Government Science College, Karachi, was established in 1887. The college, with an enrollment of 866 (1950–51), offers instructions up to bachelor of science and master of science examinations in physics, chemistry, botany, zoology, microbiology, and mathematics.

Sind Moslem College, Karachi, founded in 1943, offers courses of study in liberal arts and prepares the students for the intermediate arts and science, bachelor of arts, and master of arts examination. The number of students attending the college during 1950–51 session was 1,259.

Sind Government College of Commerce and Economics, Karachi was founded in 1945. The college prepares the student for the bachelor of commerce examination. It had an enrollment of 301 students during the 1950–51 session.

Dow Medical College, Karachi, established in 1945, prepares students for the degree of bachelor of medicine and surgery. During the 1950–51 session, the college had an enrollment of 505 students.

Sind Moslem Law College, Karachi, established in 1947, prepares the students for the bachelor of law degree. The total number of students during the 1950–51 session was 507.

Government S. T. College, Karachi, was founded in 1947, and offers a course of studies in education, preparing the students for the bachelor of teaching examination. This is a small institution with an enrollment of 38 (1950–51).

Islamia College, Karachi, established in 1948, prepares the students up to bachelor of arts and master of arts degree examinations. It had an enrollment of 598 during the 1950–51 session.

Kul Pakistan Anjuman Taraqui Urdu College, Karachi, was founded in 1949. The college offers programs of study for bachelor of arts and master of arts and bachelor of commerce in Urdu. The enrollment during the 1950–51 session was 1,193.

Both *Central Government College for Women* and *St. Joseph's College for Women* in Karachi were established in 1950. These colleges prepare students for the intermediate arts and bachelor of arts examinations. The former had an enrollment of 312 and the latter 122 during the 1950–51 session.

Examinations and Degrees

The list of examinations conducted by the university are as follows:

Faculty of arts.—Intermediate arts, bachelor of arts (B. A.) both pass and honors courses, master of arts (M. A.)

Faculty of Commerce.—Intermediate commerce and bachelor of commerce (B. Com.)

Faculty of education.—Bachelor of teaching (B. T.)

Faculty of science.—Intermediate science (B. Sc.); pass and honors, master of science (M. Sc.)

Faculty of medicine.—Bachelor of surgery and medicine, first, second, third, and fourth bachelor of medicine and bachelor of surgery (M. B., B. S.)

Faculty of engineering and technology.—First-year engineering (F. E.); second-year engineering (mechanical, electrical, and civil), bachelor of engineering (B. E.) in civil, mechanical, and electrical.

Faculty of law.—Bachelor of law, first L. L. B. and second L. L. B.

Each year the office of the registrar publishes the announcement of various examinations, their program, time, place, the courses, and the number of papers, etc.

Enrollment.—The total enrollment for the academic year 1953–54, including affiliated colleges, is reported as 8,000 students.

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