

XVII. As to clause 60 thereof, by deleting the word "fair" in the paragraph numbered (16) relating to English Language and Literature, and inserting in lieu thereof the word "competent."

XVIII. Further, as to clause 60 thereof, by deleting the paragraph numbered (21) containing the program in Physiography, and substituting therefor the following:—

(21.) *Physiography*.—(a.) The earth as a globe; size, shape, and general structure; internal heat; motions of rotation and revolution; the earth as a member of the solar system; phases of the moon; eclipses; solar spectra; measurement of time; inclination of the earth's axis and its effects; meridians and parallels; latitude and longitude; the construction of maps; projections (equidistant, conical, and mercator's only); rhumb-line and great-circle sailing; terrestrial magnetism.

(b.) The Atmosphere: Composition; colours of the sky; winds; planetary circulation; distribution of atmospheric pressure; isobars; effects of seasonable changes of temperature; isothermals; shifting of equatorial calm-belt; trade-winds, monsoons, &c.; cyclones and anti-cyclones; clouds and cloud forms; the rainbow; dewpoint; rainfall; rainy and dry belts; climate; causes affecting climate; relation of vegetation to climate; results of irregular distribution of land and water; meteorological instruments; principles of weather-predicting; interpretation of weather charts.

(c.) The Ocean: Form of ocean basins; composition, temperature, and pressure of ocean water; ocean depths; methods of ascertaining ocean depths and conducting deep-sea observations; deposits on the ocean floor; waves, currents, and tides; influence of the ocean on climate; control over distribution of organic forms.

(d.) The Land: Weathering; work of rain; denudation; general features of land surface; slow changes in progress; slow movements of the earth's crust; earthquakes, seismographs; initial drainage; consequent drainage; divides; subsequent drainage features; influence of geological structure; stratified and unstratified rocks; weak and resistant rocks; folds and faults; stream profiles; the geographical cycle, its various stages; base-level and peneplain; interruptions of cycle by crustal movements; succession of cycles; composite topography; characteristics of river valleys; flood plains; terraces; alluvial fans; deltas; glaciers; glacial erosion; forms of glaciated valleys; cirques; moraines; evidence of former glaciation; the work of wind; loess deposits; volcanic action; forms assumed by accumulation of volcanic material modified by erosion; thermal action; marine erosion; shore lines; initial forms and modified shore lines; plains of marine erosion; types of coasts depending on structure; origin of various types of mountains, valleys, plateaux, plains, lakes, and islands; the outlines of the continents; methods of representing topographic features on maps and diagrams.

A candidate in Physiography will be required to forward to the Department, before the examination, a certificate on the prescribed form that he has gone through a sufficient course of practical work in the subject as defined above occupying at least eighty hours. Generally speaking, not less than one-third of this total must be spent in the field.

For the examination of January, 1915, candidates may at their discretion take in this subject the program hereby superseded, and the paper or papers set shall be arranged accordingly.

J. F. ANDREWS,
Clerk of the Executive Council.