

# GEOGRAPHY

## ADVANCED LEVEL

The syllabus is based on the belief that geography makes a valuable contribution to education. This partly derives from the nature of the questions which geographers raise and the variety of possible answers. The focus is on situations where reasoned choices, based on a number of value judgements have to be made. The value of geographical study also derives from the wide variety of learning experiences and materials of which it makes use. The study of geography creates a need for open-mindedness towards the solution of problems. Creative, critical thinking and problem-solving are emphasized in this syllabus in which the content focuses on the study of the people-environment system.

### AIMS AND OBJECTIVES

1. *KNOWLEDGE* of people-environment systems in NATURAL, AGRICULTURAL, URBAN and INDUSTRIAL landscapes, developed through an understanding
    - 1.1 (a) of *distinctive landscapes* using examples selected (where possible) from Asia and other suitable areas outside Asia.
    - (b) of the principal *components* of these systems.
    - (c) of the *interaction* between people and their environment in a variety of landscapes.
    - (d) of the role of people's *perception* of their environment, and the choices and decisions they make as a result of this perception in creating distinctive landscapes.
  - 1.2 (a) that people are a part of a *system* comprising physical, biological and socio-cultural environments.
  - (b) that people's place in the system enables them to alter the *interrelationships* : the nature and magnitude of the changes are often a result of people's decisions and activities.
2. *COMPREHENSION* and *APPLICATION* of the following principles :
    - 2.1 that physical and cultural elements of a landscape may be organized or grouped into natural and cultural units and regions.
    - 2.2 that units and regions may possess closely similar or highly dissimilar characteristics, and that change in character from one unit or region to another may be abrupt or gradual.

- 2.3 that modifications of spatial characteristics are continually occurring.
- 2.4 that contrasting interactions of processes may be revealed at given points in time.
- 3. The ability to use relevant facts in order to show comprehension, application, analysis and synthesis of the following *ORGANIZING CONCEPTS*:
  - 3.1 *landscape*
  - 3.2 *system*
  - 3.3 *people-environment system*

These major concepts are explained as follows:

- 3.1 *landscape* : the term refers to an area comprising a distinct association of forms, both natural and cultural. Landscape elements include physical and biological features (e.g. landforms, vegetation) and cultural features (e.g. houses, roads, crops). They are woven into a system by processes resulting from the activities of people and nature, or from the interplay of the two.
  - 3.2 *system* : a system is an interacting set of components where a change in one component will lead to changes throughout the system. Ecosystems are particular types of system. They can be viewed as a functioning interacting system of living organisms and their effective environment. As such the idea of ecosystem is of value both as a specific concept in biogeography and as organizing ideas in many people-environment situations.
  - 3.3 *people-environment system* : this expresses the way in which people interact with the cultural and physical environment. It expresses the way in which people are able to organize the environment for their use with resultant landscape changes on the one hand, and be restricted by environmental constraints on the other.
- 4. *EVALUATION* of central questions in geographical study

Geography is defined not so much by its boundaries or by its objects of study but by the questions which it asks. Key questions in geography include those relating to spatial location and to the concepts outlined above. The ability to make judgements about the value or adequacy of various materials and methods used in the solution of geographical problems is required. The ability to assess the standards of appraisal used to judge the effectiveness of these solutions is also needed.

- 4.1 Three key *issues* which concern geographers are:
- (a) what factors, and in what order of significance, contribute to the distinctiveness of landscapes ?
  - (b) to what extent do these factors reveal similarities and differences between places ?
  - (c) can broadly similar areas be identified and classified into landscape regions ?
- 4.2 In terms of a syllabus, these issues can be resolved into four major *questions*:
- (a) *what* features are visible on the earth's surface ?
  - (b) *where* on the earth's surface are these features located ? (their spatial location and spatial distribution)
  - (c) *why*, or by what chain of events, are they there ? (in relation to spatial interaction, spatial association, spatial change over time, spatial processes and spatial structures)
  - (d) *how* are the features *related* spatially and functionally ? (measures of these relationships derive from concepts such as spatial association, spatial interaction and spatial change over time)

5. *TECHNIQUES AND SKILLS*

Competency in the following techniques and skills are expected, namely the ability to

- 5.1 extract information from varying data sources;
- 5.2 identify the main components and linkages of the system present;
- 5.3 draw explanatory inferences in the context of the geographical concepts they have learnt.

6. *VALUES*

Candidates should be

- 6.1 aware not only of the particular geographical problems of Hong Kong, but also be able to identify and examine similar problems in other parts of the world.
- 6.2 committed to a balanced appreciation of problems not commonly found in Hong Kong.
- 6.3 aware of and committed to the need to maintain and improve the quality of people-environment systems in Hong Kong and elsewhere.

- 6.4 aware of the interdependence of communities throughout the world, and value the need for international co-operation and good will.
- 6.5 aware of the value of the special contribution which geographers make to the solution of people-environment problems.

### THE EXAMINATION

1. There will be two examination papers, each of three hours' duration. Paper 1 will consist of structured questions and Paper 2 of open-ended essay questions.

Paper	Part/Section	Description	No. of questions set	Duration
1	Part I (Compulsory)	Map question	1	3 hours
	Part II	Data response, structured questions	4	
	A: Natural Landscapes		2	
	B: Agricultural Landscapes			
C: Urban And Industrial Landscapes	4			
2	A: Natural Landscapes	Open-ended essay questions	4	3 hours
	B: Agricultural Landscapes		3	
	C: Urban And Industrial Landscapes		4	

2. In Paper 1, candidates will be required to answer five questions (20% each), including the compulsory map question in Part I and four questions from Part II. Of the four questions attempted in Part II, one must be chosen from each section and one other from either Section A or Section C. Questions will examine candidates' understanding of the SYLLABUS CONTENT by means of either data or stimulus response questions. The questions will be structured to test the candidates' abilities to (1) extract and simplify data; (2) analyse relationships which become apparent; and (3) where appropriate to evaluate possible outcomes.

3. In Paper 2, candidates will be required to answer a total of four questions (25% each), one from each section and one other from either Section A or Section C.
4. Content areas and practical skills will be tested in both papers. Questions may require candidates to use specific case studies/examples to illustrate their answers, and may be set to test candidates' personal knowledge and application of field work.

## **THE SYLLABUS CONTENT**

### **I. *LANDSCAPE INTERPRETATION***

1. A primary objective is the development of the candidates' ability to use the concepts, techniques and skills outlined in the objectives. The application of these can be practised through the analysis and interpretation of landscapes, which express people-environment relationships in different environmental systems. Each landscape should be studied with reference to the components, forms and processes which make it distinctive from, or similar to, other landscapes. Case studies at various scales should be developed and where possible supplemented by field investigation.
2. Consequently candidates are expected to be able to demonstrate the ability to analyse landscape information. They should be able to
  - (a) read, understand and interpret a variety of maps, charts and diagrams at different scales.
  - (b) identify and interpret the interrelationships of physical and cultural elements of landscapes from ground and aerial photographs and from topographic maps.
  - (c) observe, measure and record systematically and accurately data which are relevant to the solution of geographical problems, both in the field and in the classroom.
  - (d) abstract, interpret and use written materials, such as reports, tables, census data, newspaper reports, extracts from relevant journals, magazine articles.
  - (e) draw appropriate illustrations (maps, diagrams, models, landscapes sketches, graphs) and use them to complement and add to written information.
  - (f) select and apply elementary statistical techniques (sampling methods; statistical diagrams; measures of central tendency, deviation and variability; correlation.)
  - (g) construct and test hypotheses in the classroom and the field in order to solve geographical problems.
  - (h) present material and arguments in a structured and logical manner and be familiar with geographical terminology.

3. With respect to the SYLLABUS CONTENT, candidates should be able to recognize
  - (a) the nature of the environmental processes and responses;
  - (b) people's abilities to perceive the environment and how they influence their decision-making in exploitation;
  - (c) the effects of this exploitation on the spatial distribution of people's activities and the effects of the distribution of people's activities on the ecosystem as a whole;
  - (d) the effects of economic, political, social and cultural systems and attitudes.

## II. *LANDSCAPES*

- A. Natural Landscapes
  1. *Climatic System*
    - (a) the energy budget, energy flow, spatial variation
    - (b) atmospheric moisture, processes, flows within the system
    - (c) atmospheric circulation, air masses, major wind systems
    - (d) the interplay of (a), (b) and (c) which result in climatic variation
  2. *Landform System*
    - (a) plate tectonics and the distribution of major landform features
    - (b) the drainage basin system and its variation in different environments (tropical humid, tropical arid, polar)
      - (i) the hydrological cycle in the context of landform development
      - (ii) the weathering sub-system
      - (iii) the slope sub-system
      - (iv) the channel sub-system
  3. *Biotic System*
    - (a) ecosystem
    - (b) major factors influencing the formation of soils with special reference to Oxisols and Aridisols
    - (c) factors influencing the development of vegetation
    - (d) plant-environment relationships at a global scale (biomes) and at a local scale
  4. An understanding of *people-environment relationships* within the following environments :
    - (a) Tropical rain forest
    - (b) Tropical desert

- B. Agricultural Landscapes
  - 1. Farming as (a) an ecological system (b) an economic system :
    - (i) physical, social and economic components, interactions, flows
    - (ii) effects on crops and/or livestock selection and production
  - 2. Spatial patterns in agriculture landscapes : land-rent and distance-decay concepts, concepts of agricultural location (von Thunen, Sinclair)
  - 3. Impact of urbanization and industrialization on farming
  - 4. Farming hazards (floods, droughts) : nature, magnitude and frequency, effects and solutions
  
- C. Urban And Industrial Landscapes
  - 1. Location, spacing, size and functions of urban settlements (Christaller)
  - 2. Spatial patterns in urban landscapes
    - (a) land-rent and distance-decay concepts, concepts of urban structure (Burgess, Hoyt, Harris and Ullman)
    - (b) urban population densities
  - 3. Concepts of manufacturing location (Weber) : role of raw materials, energy, labour, transport, market, technology, behavioural and institutional factors; agglomeration and decentralization
  - 4. Urban problems : housing, transport
  - 5. The impact of urbanization and industrialization on the quality of the environment

### III. *EXAMPLES AND CASE STUDIES*

The use of detailed examples and case studies is essential as bases for developing and exemplifying arguments.

- 1. One or more case studies or detailed examples should be used within each of the NATURAL, AGRICULTURAL, URBAN and INDUSTRIAL LANDSCAPES. It is important that candidates are able to relate concepts to reality within each of the landscapes.
- 2. Case studies are a useful means of bringing reality to candidates' understanding. It may sometimes be possible to use case studies which embrace a number of key ideas. This will synthesize understanding. However, this will not be possible in all situations and detailed examples may be more appropriate. An ability merely to quote named examples is insufficient.

3. Some case studies are better developed at a micro scale whereas for others, a macro scale may be applicable.
4. The selection of case studies should depend on the relevancy to the study of a particular topic and should allow comparisons to be made wherever appropriate. Areas should be selected from both within and outside Asia. However, this syllabus is not intended to provide a comprehensive regional/continental coverage.
5. The selection of case studies should accord with the general themes outlined in Section II, and with the suggested interpretations in Section I of the SYLLABUS CONTENT. It should also conform to the AIMS AND OBJECTIVES stated at the beginning of this syllabus.

Pinyin spelling of Chinese place names, as well as other proper names, will be used in the examination papers. Candidates are encouraged to use pinyin in their answers although Wade-Giles spelling will also be accepted.