

## ADVANCED SYLLABUS GEOGRAPHY (A18)

### ADVANCED GEOGRAPHY (A18)

#### SCHEME OF EXAMINATION

The examination will be made of two papers:

**A18-1** Paper 1 (Essay Questions), **100** marks (**3** Hours)

**A18-2** Paper 2 (Practical and Short Structured Questions in Physical Geography), **100** marks (**3**Hours).

**Paper 1:** This consists of two sections – Section A and Section B.

Section A is “Regional Geography of West Africa”, while Section B is “Principles of Human Geography”. Candidates are expected to answer five questions at **20** marks each in this paper. Three questions in section A, and two questions in Section B. The two sections will last for **3** Hours.

Therefore, section A is **50** marks, and section B is **50** marks, totally **100** marks.

**Paper 2:** This also consists of two sections: Section A and Section B.

Section A (Map Reading & Interpretation, Elementary Survey and Statistics) comprises of ten compulsory questions at **5** marks each for **50** marks. Conversely, Section B (Physical Geography) also comprises 4 ten compulsory Short Structured questions at **5** marks. The two sections will also last for **3** Hours.

Section A is **50** marks, and section B is also **50** marks, with a total of **100** marks.

Therefore, Paper 1 is **100** marks, and Paper 2 is also **100** marks with a grand total of **200** marks.

All sections or topics must be studied by students in Human Core Area

S/N	TOPIC/OBJECTIVE	CONTENT	ACTIVITIES/REMARKS
1.0	<p><b>Population</b> {Natural increase as a component of population change}</p> <p>1.1 Define Population of a geographical entity</p> <p>1.2 Define/Describe natural increase rates - birth rates and death rates</p> <p>1.3 Describe fertility rates and infant mortality rates</p> <p>1.4 Explain the demographic pyramids</p>	<p>Natural increase and population change:</p> <p>i. Birth rate</p> <p>ii. Death rate</p> <p>iii. Fertility rate</p> <p>iv. Mortality rates in infants</p> <p>v. Copious explanation of the factors influencing the levels of fertility and mortality</p> <p>vi. The demographic pyramids (age and sex pyramids)</p> <p>vii. Population structure (age, gender, dependency ratio etc.)</p>	<p>a) Read/learn about population change of some Less Developed and more Advanced Nations of the world. E.g. Nigeria, Republic of South Africa, India, China, USA, Britain, Russia etc.</p> <p>b) Relate the population of Nations to their economic, political, social and cultural development</p> <p>c) Find out what Nations have done or are doing about balancing population development</p>

S/N	TOPIC/OBJECTIVE	CONTENT	ACTIVITIES/REMARKS
2.0	<b>Demographic transition</b> 2.1 Describe changes in birth rate and death rate over time 2.2 Draw and explain the demographic transition model demographic transition models stages 1-4 (and the possible inclusion of stage 5)	i. Demographic transition - changes in birth rate and death rate over time - a critical appreciation demographic transition model - issues of ageing population especially in the USA, Russia, Europe etc. - link between population and development - changes in demographic induces over time (e.g. Life expectancy)	a. Survey of global implication of ageing population – reaction of less developed countries of the ageing population of the USA, Canada, Australia and Europe b. information are available in the high commissions/embassies and internet
3.0	<b>Population – resource relationship</b> 3.1 Identify the population carrying capacity e.g. Percentage of farming or agricultural population 3.2 Enumerate/itemise the causes and consequences of food shortage 3.3 Describe/explain the causes consequences of food shortage 3.4 list the roles of war, climatic hazards or climate change in relation to changing populations	Causes and consequences of food shortage i. The role of science technology and innovations in resources development (e.g. food production and industrialization) ii. Influence of constraints like wars, climatic hazards, climate change in relation to changing population iii. detailed study of the concept of over population, optimum population and under population iv. the concept of a population ceiling and population adjustments over time ( the J-curve and S-curve)	a. Find out what percentage (%) of the population is into farming or agriculture in the less developed and advanced countries e.g. Nigeria, USA, Canada, Sweden, UK etc. b. explore why there were food shortages in Sudan, South Sudan, Somalia, Chad, Mali, Ethiopia, North Korea and Russia (in the 1990s) c. what have been going on in the world efforts at obliterating food shortages – FAO and other international agencies
4.0	<b>The management of natural increase in countries like china, India, Singapore, brazil, Australia, U.S.A, and Canada:</b> 4.1 Identify the national policy of population of two or more countries of your choice 4.2 State the impact on	Population policy of nations of your choice i. Problems of policy ii. Population policy and the economic development of the nation chosen iii. Evaluating critically the attempted solutions	a. pay visits to embassies, libraries and browse the internet for relevant information to national population management and the impact on the socio-economic development of the chosen countries b. find out the relationship between the U.S.A, visa

S/N	TOPIC/OBJECTIVE	CONTENT	ACTIVITIES/REMARKS
	economic development of such countries		lottery, Canada visa lottery, Australian visa lottery etc.
5.0	<b>Migration</b> 5.1 Identify the various movement of populations of more than one year duration 5.2 Itemise and describe the various causes of migration 5.3 Explain the processes and patterns of migration 5.4 Explain the roles of constraint to migration	Migration as a component of population change i. Causes of migration (push factors and pull factors) ii. Process and patterns of migration iii. Role of constraints – obstacles and barriers (e.g. Distance, cost, national borders)	a. Assignment – students should be given some work to do on the impact of distance, cost, national borders
6.0	<b>Internal migration (within a country)</b> 6.1 Define rural – urban and urban – rural movements 6.2 Identify their causes and impacts on the source and receiving (destination) areas 6.3 Describe urban – rural and intra – urban movements bringing out their causes and impacts	Internal migration (within a country) i. Causes and impacts of rural – urban movement on the source and receiving (destination) areas ii. Causes and impacts of urban - rural movement on the source and receiving areas iii. Causes and impacts of rural – rural and urban - urban movement iv. Causes and impacts of intra-urban movements (within urban settlements)	a. Field work – visits to urban centres, urban fringes or rural – urban fringes
7.0	<b>International migration</b> 7.1 Identify voluntary and forced (involuntary) migration/movements 7.2 Describe the causes and pattern of international migrations 7.3 Enumerate copious examples of economic and refugee flows and impact on source and receiving areas.	International migration i. Voluntary and forced (involuntary) ii. Causes and impacts of international migration iii. Economic migration and refugee flows and their impact on the source regions and receiving area	a. Visits to refugee camps e.g. Refugee camps of the West Africans deported from Gabon, Cameroon etc. b. Visit the immigration camps of those deported from U.S.A Europe etc. and a trip also to the agencies against women and children trafficking
8.0	<b>A case study of international</b>	A case study of international	a. Field work – find out the reports on

S/N	TOPIC/OBJECTIVE	CONTENT	ACTIVITIES/REMARKS
	<p>migration</p> <p>8.1 Identify major international destinations e.g. France, Italy, Germany, U.K, U.S.A, Canada etc.</p> <p>8.2 Itemise the causes and impacts, character, scale, pattern and impacts on the source and receiving regions/ areas</p>	<p>migration</p> <p>i. Migration to Italy, France, U.S.A, Canada, Australia, U.K, Germany etc. (please choose only one)</p> <p>ii. Enumerate the causes, character, scale, pattern and impacts on the source and receiving areas</p>	<p>international migration from the Nigerian agencies like immigration, Nigeria custom, airport, authorities and agencies against women and children trafficking</p>
9.0	<p><b>Changes in rural settlements</b></p> <p>9.1 Enumerate and explain the contemporary issues in less economically developed and more economically developed countries (MEDCS)</p> <p>9.2 explain the impacts of rural – urban and urban – rural migration on urbanization (urban growth)</p>	<p>Changes in rural settlements</p> <p>i. Rural – urban migration and urbanisation in poor and advanced nations.</p> <p>ii. Urban – rural migration and urbanisation in poor and advanced nations</p> <p>iii. A case study of a rural settlement ( a village or hamlet) explain issues of growth or development or decline</p>	<p>a. Field work- visits to some university town eg. Nsukka, Abraka, Ekpoma, Otuoke, Efurun, Ayangba, Akugba, Oghara, Okada, Ekiadolor among others to appreciate the socio-economic development brought about by the location of tertiary institution in a rural settlement</p>
10.0	<p>Urban trends and issues of urbanisation</p> <p>10.1 Identify and describe the process of urbanisation in LEDCs and MEDCs</p> <p>10.2 Define the concept of world city</p> <p>10.3 Enumerate the course of growth of world cities</p>	<p>Urban trends and issues of urbanisation</p> <p>i. Counter-urbanisation and re-urbanisation</p> <p>ii. Competition for land in the urban areas</p> <p>iii. Urban renewal and gentrification</p> <p>iv. Changing accessibility and life style in urban areas</p> <p>v. The concept of the world city – causes of the growth of world cities</p> <p>vi. The development of a hierarchy of world cities</p>	<p>a. Browsing the internet and visits to libraries and embassies</p>
11.0	<p><b>The changing structure of urban settlements</b></p> <p>11.1 Identify the factors affecting the location of activities within urban areas</p> <p>11.2 Explain how urban locations change over time for</p>	<p>Changing structure of urban settlements</p> <p>i. Factors affecting location of activities within the urban areas e.g. Planning and how urban locations change over time for retailing,</p>	<p>Field work –</p> <p>a. students and teachers could undertake field trips to cities like Kano, Sokoto, Benin City, Ibadan, Lagos, Port Harcourt, Enugu, Ilorin, Calabar, among other to determine how</p>

S/N	TOPIC/OBJECTIVE	CONTENT	ACTIVITIES/REMARKS
	retailing, servicing 11.3 Describe functional zonation and competition for space in urban areas, changing CBD, residential zonation among others	services and manufacturing ii. Functional zonation and competition for space in urban areas and concept of bid-rent	the their socio – economic landscape have changed overtime b. visits to libraries in order to find out how Jericho Chicago, new York, shanghai, Singapore, Tokyo, San Francisco, Boston, Toronto, Addis Ababa, Johannesburg among others have changed over the years socially and economically
12.0	<b>The management of urban settlements</b> 12.1 Describe the factors facilitating the establishment/location of shanty towns or (and) squatter settlements in less economically developed countries (LEDCs) 12.2 Explain the provision of infrastructure for a city in more economically developed countries (MEDCs) 12.3 Determine the strategies for reducing urbanisation in less economically developed countries	The management of urban settlements – i. A case study illustrating the difficulties of and attempted solutions in shanty towns and (or) squatter settlements in a less economically developed country ii. The provision of infrastructure for a city and for the inner city iii. Strategies for reducing urbanisation in less economically developed countries	Field work – a. Students must endeavour to visit some shanty towns and (or) squatter settlements or ghettos in serve Nigeria or African cities, for first hand assessment or evaluation of landscape b. Browse the Internet in order to assess cities like Bombay/Mumbai, New Delhi, Nairobi, Mombasa, Johannesburg/Soweto, Accra among others and the growth or development of ghettos or shanties in them.

**Nota bene (N/B) all topics must be studied by students**

Human geography (advanced) options. There are four sections here, candidates must study at least two of these four human options, which are; (1) Agricultural system and food production (2) Environmental management, (3) Global interdependence and (4) Economic transition.

S/NO	TOPICS/OBJECTIVE	CONTENT	ACTIVITIES/REMARKS
13.0	<b>Agricultural systems and food production</b> 13.1 Identify the factors affecting agricultural land-use and practices on farms 13.2 Describe the roles of irrigation, land tenure,	Agricultural systems and food production; i. Factors affecting agricultural land – use (e.g. Social, political, physical, economic etc.) ii. The roles of irrigation, land tenure, nature of	a. Comparison of irrigation in Nile valley and irrigation in the land Niger delta in west Africa b. Fadama farming or dry season farming or dry

	<p>nature of demand and distance from markets</p> <p>13.3 Explain the role of technology in Agriculture</p> <p>13.4 Analyse the concept of an agricultural system with inputs, through puts subsystem and output</p> <p>13.5 Comparison of intensive and extensive production and agricultural productivity</p>	<p>demand and distance from the market</p> <p>iii. Relevance of agricultural technology in food production</p> <p>iv. The concept of an agricultural system with inputs, through puts subsystem and output</p> <p>v. One arable system and one pastoral system</p> <p>vi. Intensive and extensive production and agricultural productivity</p> <p>vii. Issues in the intensification of agriculture and the extension of cultivation</p>	<p>season farming should be investigated</p> <p>c. Students to visit ADP in the various state of Nigeria</p> <p>d. The role of the federal ministry of agriculture and rural development should be evaluated by students</p> <p>e. Assessment of the relevance of the river basin authorities in Nigeria</p> <p>f. The role F.A.O is very important in the world food production</p>
14.0	<p><b>The management of agricultural change</b></p> <p>14.1 To undertake a case study of the difficulties in the management of agricultural change in one country</p> <p>14.2 Evaluate the change at the small holding level and at national level also – with an evolution of the attempted solutions</p>	<p>The management of agricultural change</p> <p>i. A case study illustrating the need for, and some difficulties in the management of agricultural change in a country of your choice</p> <p>ii. Assessment/evaluation of the level agricultural change at the small holding and at the national levels or scale</p> <p>iii. Itemizing and describing the attempted solutions</p>	<p>Field trips to – private farms, community farms, farm estates, small holdings of peasant farmers etc.</p>
15.0	<p><b>Manufacturing and related service industry</b></p> <p>15.1 To identify the various factors influencing the location of manufacturing and related service industry</p> <p>15.2 Describe the concepts of industrial agglomeration, functional linkages,</p>	<p>Manufacturing and related service industry:</p> <p>i. Factors influencing the location of manufacturing and related service industrials (e.g. Land, labour, capital, markets, material, technology, economies and diseconomies of scale,</p>	<p>Field trips to EPZ, industrial estates, and thorough evaluation of location of some industries in your states eg. Bendel brewery, Guinness Nigeria plc, Nigeria tobacco company. Asaba textile mill, African timber and</p>

	<p>industrial estates and export process zone (EPZ)</p> <p>15.3 Explain the informal sector of manufacturing and services in terms of causes, characteristics, location and impact</p>	<p>Inertia, transport, government policies)</p> <p>i. The concepts of industrial agglomeration, functional linkage, industrial estates and export processing zone (EPZ)</p> <p>ii. The informal sector of manufacturing and services, causes, characteristics location and impact</p>	<p>plywood (ATP) Sapele, piedmont wood industry at Ologbo (in Edo state)</p> <p>Cement factories at Nkalagu, Gboko, Ukpilla</p>
16.0	<p><b>Management of industrial change. ( A case study)</b></p> <p>16.1 To identify one country with a unique industrial policy</p> <p>16.2 Determine the workability of that industry policy</p> <p>16.3 Evaluate the success, failure and possible or attempted solutions</p>	<p>Management of industrial change:</p> <p>i. A case study of a country policy, ( noting the consequent change in the character, location and the organisation of its industrial production)</p> <p>ii. Analysing / illustration some of the issues faced and evaluating the attempted solutions</p>	<p>Comparison of Nigeria industrial policies of industrial tigers and lions e.g. U.S.A, Japan, U.K, Singapore, china, Taiwan, Germany, Canada, France, Italy and Russia</p>
17.0	<p><b>Environmental management;</b></p> <p>17.1 Identify the renewable and non-renewable energy resources</p> <p>17.2 Enumerate the factors at the national state affecting demand for and supply of energy</p> <p>17.3 Evaluate the balance between the different sources</p>	<p>Environmental management:</p> <p>i. Sustainable energy supplies (renewable and non-renewable energy sources</p> <p>ii. Factors at the national scale affecting demand for and supply of energy</p> <p>iii. The balance between the different sources (level of development, resource endowment, capital, technology, pollution, energy policy)</p> <p>iv. Trends in the consumption of fossil fuels nuclear power and renewable (eg. Wind, oceanic thermal energy conversion, tidal energy, fuelwood, biofuels, hydro-electric</p>	<p>a. Through on the spot assessment, existing power/energy production stations must be visited,</p> <p>b. Comparison of renewable and non-renewable energy source in Nigeria</p> <p>c. How fair is energy supply now? Find out</p> <p>d. what are the problem facing power supply in LEDCs</p> <p>e. evaluate the efforts of federal</p>

		<p>power, geothermal, oceanic waves, solar) in less economic developed countries and more economic developed countries.</p> <p>v. The environment impact of energy production, transport and usage at local and global scales</p>	<p>government, state government and the private sector in the production of electric power in your country</p>
18.0	<p><b>The management of energy supply</b></p> <p>18.1 Identify one country's overall electrical energy strategy and one of named located scheme to produce electrical energy (eg. Power station – as a case study)</p> <p>18.2 Determine the issues of change in demand and supply in power production and its location</p> <p>18.3 Evaluate the success of the overall strategy and the selected scheme</p>	<p>Management of energy supply:</p> <p>i. A case study of one country in overall electrical energy strategy and of one named located scheme to produce electrical energy (eg. A power station)</p> <p>ii. Evaluating / illustrating some of the issues of changes in the demand and supply in power production and its location.</p> <p>iii. Through assessment of the overall strategy and selected scheme</p>	<p>a. The ministry of mines and power has the complete list of all power stations in Nigeria</p> <p>b. Students can identify the ones close to them in order to carry out a case study</p> <p>c. The change to the production of renewable energy – how far, so far?</p>
19.0	<p><b>Environmental deregulation</b></p> <p>19.1 Identify the various forms of environmental deregulation – air, land and water pollution</p> <p>19.2 Evaluate the quality of water- demand and supply of water</p> <p>19.3 Enumerate and describe the factors in the deregulation of rural environments and the factors in the degradation of urban environments</p>	<p>Environmental degradation</p> <p>i. Land, air and water pollution</p> <p>ii. Demand and supply of water – issues of water quality</p> <p>iii. Factors in the degradation of rural environments – over population, poor agricultural practices deforestation</p> <p>iv. Factors in the degradation of urban environments – urbanisation, industrial development, in adequate infrastructure</p> <p>v. Constraints on improving the quality of degraded environments</p> <p>vi. The protection of environment at risk:</p>	<p>Areas affected by gas flaring, oil spillage and desertification should be visited. Educational resource centres could also be visited in order to purchase DVD, CD, video tapes polluted landscape for superlative comprehension</p>



		needs, measure and outcomes	
20.0	<p><b>The management of a degraded environment</b></p> <p>i.1 Itemise the causes and problems of degradation of a chosen environment</p> <p>i.2 Enumerate the issues arising from the attempts to clean up the degraded environment</p>	<p>The management of degraded environment:</p> <p>i. A case study of a particular location which had been degraded eg. Ogoni land. (with emphasis on the causes of degradation and efforts to clean up the degraded environment)</p> <p>ii. Evaluating the issues emanating from the attempts to improve or finding solutions of the degraded environment</p>	<p>a. There are many agencies involved in the management of environment – records are available in the ministries of Agriculture and forestry environment and water resources, mines and power petroleum resources etc as regards the protection and degradation of the environment</p> <p>b. They could be assessed by students/candidates</p>
21.0	<p><b>Global interdependence: trade flows and trading patterns</b></p> <p>21.1 Identify the items of international trade</p> <p>21.2 Determine the global inequalities in trade flows</p> <p>21.3 Enumerate and explain the factors affecting global trade</p>	<p>Global Interdependence</p> <p>i. Global visible and invisible imports and exports</p> <p>ii. Global inequalities in trade flows</p> <p>iii. Factors affecting global trade (including resource endowment, locational advantage, historical factors such as colonial ties, trade agreements, changes in the global market</p> <p>iv. World trade organisation (WTO), the nature and role fair trade</p>	<p>Students should be grouped in 3 or 4, and each topic is given out as weekend assignment</p>
22.0	<p><b>Debt and aid, and their management</b></p> <p>22.1 Enumerate the causes of debt at national scale</p> <p>22.2 Define the nature of debt at national scale</p>	<p>Debt and aid and their management:</p> <p>i. The causes, nature and problems of debt at the national level</p> <p>ii. The debt crisis and debt</p>	<p>The ministry of trade commerce and industries, the federal office of statistics possess copious information on debts</p>

	<p>22.3 Identify the problems of debt and national scale</p> <p>22.4 Define debt crisis and debt relief</p> <p>22.5 Itemise the various types of aids and donors</p>	<p>relief</p> <p>iii. Different types of aids and donors ( relief aid, tied aids development aid, bilateral and multilateral aid</p> <p>iv. A critical appreciation or analysis of the impacts of aids) on receiving countries</p>	<p>and aids and their management, the central bank of Nigeria (CBN) is also useful here. These agencies could be consulted</p>
23.0	<p><b>Development of international tourism</b></p> <p>23.1 Enumerate the reasons for and trends in the growth of tourism</p> <p>23.2 State the impacts of tourism on the environment societies and economies</p> <p>23.3 Itemise the carrying capacity and the multiplies on national development</p> <p>23.4 Identify the recent developments including ecotourism</p>	<p>Development of international tourism:</p> <p>i. Reason for trends in the growth of tourism</p> <p>ii. The impacts of tourism on the environments, societies and economies (- local and national) of tourist destinations</p> <p>iii. The carrying capacity and the multiplier effects of tourism on national development – hospitality business and or pilgrimage angle of tourism</p> <p>iv. A critical appreciation/analysis of life cycle model of tourism</p> <p>v. Recent developments including ecotourism</p>	<p>a. The students are to do comprehensive project work on the Nigeria tourist sites</p> <p>b. some countries in Asia, North America and Africa whose economies are over 40% dependent on tourism should be studied</p>
24.0	<p><b>The management of tourist destination</b></p> <p>24.1 Identify one tourist destination for a case study</p> <p>24.2 Itemise factors of growth and development</p> <p>24.3 Enumerate the effects/impacts on the region</p> <p>24.4 List the problems and possible solutions</p>	<p>The management of tourist destination:</p> <p>i. A case study of a particular resort/tourist area (cause of growth and development, evaluation of the impacts on the environment/society or economy)</p>	<p>Any of these sites are good tourist destinations in Nigeria: Palaces of obas, the Benin moats (iya), zoos, parks- in okomu, borgu game reserves) wiki warm, spring, ikogosi warm spring, ogbunike cave, olomo rock zuma rock, somorika hills, bar beach, lekki beach, badagry beach, snake island, some five star hotels eg. Sharoton, niconnoga, Durban hotel, Federal palace hotels, national theatre kanji dam, kura fall, Shiroro dam, Sakponba</p>

			river and forest reserves, arugungu festival, osun festival, ebu wonder masquerades, museums, mambilla plateau, jos plateau, Pankshin lake in Pankshin near Jos, churches that are international miracle centres, among others.
25.0	<p><b>Economic transition</b></p> <p><b>National development;</b></p> <p>25.1 Identify the nature of the primary, secondary, tertiary quaternary and quinary sectors and their roles in economic development</p> <p>25.2 Define and explain each sector highlighted above</p> <p>25.3 Determine/describe the nature and causes of and distribution of inequalities in economic and social well-being globally</p> <p>25.4 Itemise and analyse the indices of measurement of some social and economic inequalities</p>	<p>National development:</p> <p>i. The nature of primary, secondary, tertiary, quaternary and quinary ,sectors and their roles in economic development</p> <p>ii. The nature, cause (physical and human) and distribution of global inequalities in social and economic well being</p> <p>iii. A critical appreciation/analysis of some of the indices of measurement of social and economic inequality</p>	<p>These various sectors of the national economy are copiously discussed as regards the country the students come from (ie. With local example ) this could be done in the form of tutorials/weekend assignments</p>
26.0	<p><b>Globalisation of industrial activities</b></p> <p>26.1 Define global pattern of resources, production and market</p> <p>26.2 Explain the concepts of foreign direct investment (FDI),the new international division of labour (NIDL)</p> <p>26.3 Itemise the factors affecting the growth and spatial structure of transnational corporations (TNCs)</p> <p>26.4 Enumerate the factors in the emergence and growth of newly industrialised countries (NICs)</p>	<p>Globalisation of industrial activity:</p> <p>i. An introduction to global patterns of resources, production and markets</p> <p>ii. Foreign direct investment (FDI) and the new international division of labour (NIDL)</p> <p>iii. Factors affecting the growth and spatial structure of transnational corporations (TNCs)</p> <p>iv. A case study of the global spatial organisation and operation of one TNC</p>	<p>a. Its is imperative for student to be familiar with 98 nations of the world – USA, japan, germany, france, Italy, Canada, britian and Russia.</p> <p>b. Emerging industrial tigers of south east asia – Singapore, Malaysia, china, Taiwan, hongkong must be studied bt the in groups or individually</p>

	26.5 Explain the connections between industrial growth in some LEDCs and NICs and deindustrialisation in MEDCs	<ul style="list-style-type: none"> <li>v. Factors in the emergence and growth of newly industrialised countries (NICs)</li> <li>vi. Analysis of the connections between industrial growth in some LEDCs and in NICs and deindustrialization in MEDCs</li> </ul>	c. A case study of one transnational corporation is necessary by individual students – as a weekend assignment
27.0	<b>Regional development</b> 27.1 Describe the regional disparities in socio-economic development within countries 27.2 Define the concept of periphery 27.3 Itemise the spread and backwash effects.	Regional development (- this is the region of the world): <ul style="list-style-type: none"> <li>i. Regional disparities in social and economic development within countries</li> <li>ii. The concept of core periphery</li> <li>iii. The process of cumulative causation from initial advantages – spread and backwash effects.</li> </ul>	Nigeria is already divided in industrial zones – development wise  Each zone must be studied in detailed form – so as to bring out the dichotomies or differences between one region or the other by individual students
28.0	<b>The management of development</b> 28.1 Identify one country for a case study in terms of the nation's policy for social and economic development either on regional scale or national scale	A case study of chosen country's policy social and economic development – nationally: <ul style="list-style-type: none"> <li>i. Or a case study of a country's policy for social and economic development on the basis of the different regions in the chosen country</li> <li>ii. Analysing the various difficulties faced and evaluating the attempted solutions during the development process</li> </ul>	Each student is to carry out a comprehensive study of USA, Japan, Germany or Singapore and compare it with his own country of origin – Nigeria

Candidates must answer questions from the (3) three units

S/NO	TOPICS/OBJECTIVE	CONTENT	ACTIVITIES/REMARKS
29.0	<b>Hydrology and fluvial geomorphology</b> 29.1 Describe the hydrological cycle as it applies to drainage basins. 29.2 Define the terminology and process operating within the drainage basins 29.3 Define examples from the tropics and temperate regions 29.4 Illustrate/ describe the drainage basin as a system	The drainage basins system: i. The hydrological cycle as it applies to drainage basins ii. The terminology and processes operating within the basin (example from tropical and temperate environment) iii. The drainage basin as a system – inputs, outputs, stores and flows. (these include – precipitation, evaporation, evapotranspiration, interception, through flow, stem flow, overland flow, infiltration, percolation through flow, base flow, water tables, ground water, recharge springs)	River Basins in Nigeria should be shared among students for case studies
30.0	<b>Rainfall – discharge relationships within drainage basins</b> 30.1 Identify the components of hydrographs (storm and annual) 30.2 Enumerate the climatic influences on hydrographs 30.3 Describe the drainage basin characteristics	Rainfall – discharge relationships within drainage basin: i. The components of hydrographs (storm and annual) ii. Climatic influences on hydrographs to include precipitation type	Development wise, comparative studies of the various river basins should be done

		<p>and Intensity, temperature, evaporation, transpiration evapotranspiration , antecedent moisture</p> <p>iii. The Influence on hydrographs and stores and flows of drainage basin characteristics (including size, shape, drainage density, porosity and permeability of soil, rock types, slopes, vegetation type, land – use</p>	
31.0	<p><b>River channel process and landforms</b></p> <p>31.1 Describe the various processes of load transportation</p> <p>31.2 Explain the various erosion processes, velocity and discharge and pattern of flows</p> <p>31.3 Draw and describe the various channel landforms</p>	<p>River channel processes and landforms:</p> <p>i. Channel processes of load transport (traction, saltation, suspension and solution)</p> <p>ii. Deposition and sedimentation (the hjulstrom curve)</p> <p>iii. Erosion processes (abrasion, corrosion, solution, hydraulic action)</p> <p>iv. Velocity and discharge</p> <p>v. Pattern of flow (lammar, turbulent and helicordal)</p> <p>vi. Channel types (straight, braided meandering)</p> <p>vii. Channel landforms (thalweg, rifle and pool sequences, gorges, rapids, waterfalls, bluffs, river cliff, point bar, flood plains leaves, alluvial fans, deltas.</p>	<p>Field trip to river basin is recommended to enhance proper comprehension of the phenomena understudy</p>

32.0	<b>The human impact</b> 32.1 Enumerate the modifications to catchment flows and stores and to channel flows by land-use change (including urbanisation) 32.2 Describe abstraction and water storage 32.3 Itemise the causes and effects of floods and drought 32.4 List the prediction of flood risk and recurrence 32.5 State way of preventing / ameliorating flood problems	<b>Human impact</b> i. Modification to catchment flows and stores and to channel flows by land-use (including urbanisation) ii. Abstraction and water storage iii. The causes and effects of floods and droughts iv. Prediction of flood risk and recurrence v. The prevention and amelioration	Water storm projects are germane to many river basins in Nigeria – Benin – Owena river basin for instance should be visited by the students for pragmatic assessment
33.0	<b>Atmosphere and weather</b> 14.1 Define energy budget 14.2 Draw and describe insolation   incoming solar radiation 14.3 Explain the phenomena associated with local energy budget	<b>Atmosphere and weather</b> i. Local energy budgets – daytime – incoming solar radiation, reflected solar radiation energy absorbed with the surface and subsurface ii. Sensible heat transfer, long wave earth radiation latent heat transfer – evaporation iii. Night – time: long wave earth radiation, latent heat transfer dew, sensible heat transfer, absorbed energy returned to earth iv. Weather phenomena associated with local energy budgets (mist, fog, dew, temperature, inversion, land and sea breeze)	Meteorological stations situated at the airports, seaports, agricultural research stations e.g. N.I.F or (Nigerian institute for oil palm research) and educational resource centre can facilitate the comprehension with the provision of some resource material  (Field trip)
34.0	<b>The global energy budget:</b> 34.1 Define latitudinal pattern of	<b>Global energy budget:</b> i. The latitudinal	a. Students should draw maps of world

	<p>radiation excesses and deficits and resultant transfers</p> <p>34.2 Describe seasonal variations in pressure and wind belts</p>	<p>pattern of radiation excessive and deficits and resultant atmospheric transfers</p> <p>ii. Seasonal variations in pressure and wind belts</p> <p>iii. The influence of latitude, land or sea distribution and ocean currents on global distribution of temperature, pressure and wind</p>	<p>temperature, pressure and currents distribution – as weekend assignment.</p>
35.0	<p><b>Weather processes and phenomena</b></p> <p>35.1 Describe the various forms of atmospheric moisture (- vapour, liquid and solid)</p> <p>35.2 Explain the processes of changes to atmospheric moisture – evaporation cooperation, condensation, freezing, melting, deposition and sublimation</p>	<p>Weather processes and phenomena:</p> <p>i. Atmospheric moisture – vapour, liquid solid</p> <p>ii. The processes of change at atmospheric moisture (evaporation, condensation, freezing, melting, deposition and sublimation)</p> <p>iii. Humidity (- relative and absolute</p> <p>iv. Precipitation, radiation cooling, environmental and adiabatic lapse rates, convection and orographic uplift of air, stability, instability resultant weather phenomena (clouds, rains hails snow, frost, dew, fog)</p>	<p>Geographical garden in schools should be well maintained ----- the use of the various weather instruments by students is imperative and it is a daily affair.</p>
36.0	<p><b>The human impact</b></p> <p>36.1 Define greenhouse effect and global warming</p> <p>36.2 Explain urban effects on climate in comparison with surrounding rural</p>	<p>Human impact –</p> <ul style="list-style-type: none"> <li>The greenhouse effect and global warming</li> </ul>	<p>a. List the causes of global warming   climate change</p> <p>b. Itemise and</p>



	<p>areas (temperature – heat island, humidity, precipitation pollution winds)</p>	<p>or (and) climate change</p> <ul style="list-style-type: none"> <li>• Urban effects on climate in comparison with surrounding rural areas (temperature heat island, humidity precipitation, pollution, winds)</li> </ul>	<p>explain the effects of global warming   climate change</p> <ul style="list-style-type: none"> <li>c. How can climate change be prevented? Explain the effects of urban landuses or urban activities on weather and climate on the surrounding entity</li> <li>d. To what extent is the pollution of the environment responsible for global warming   climate change</li> </ul>
37.0	<p><b>Rock and weathering</b></p> <p><b>Elementary plate tectonics</b></p> <p>37.1 Describe the pattern of plates, sea floor spreading</p> <p>37.2 Explain the processes at divergent and convergent plate boundaries</p> <p>37.3 Enumerate and describe the processes leading to mountain building and ocean relief.</p>	<p>Elementary plate tectonic:</p> <ul style="list-style-type: none"> <li>i. Global pattern of plates</li> <li>ii. Sea floor spreading</li> <li>iii. Processes at divergent and convergent plate boundaries</li> <li>iv. Mountain building</li> <li>v. Ocean relief (ocean ridges, ocean trenches, island arcs)</li> <li>vi. Economic importance of the oceanic topography</li> </ul>	<ul style="list-style-type: none"> <li>a. Describe the theory of plate tectonics and explain three pieces of evidence which provide support for theory</li> <li>b. Making use of annotated diagram, identify the relationship between the earth crust and the interior structure of the earth</li> <li>c. Explain why crustal plates move</li> <li>d. For any one plate margin explain the</li> </ul>

			active process and their relationship to resulting landforms
38.0	<b>Weathering and rocks</b> 38.1 Describe the various forms of weathering processes 38.2 Enumerate the factors influencing weathering	Physical weathering processes (freeze – thaw, heating   cooling, weathering or drying, exfoliation / spheroidal, salt crystal growth, pressure release  i. Chemical weathering process (hydrolysis, hydration, carbonation solution, oxidation, organic action – humic and chelation) ii. Types of weathering and effectiveness in different climates (peltier diagram) iii. General factors influencing weathering (climate, rock type, structure, vegetation, relief) iv. Properties of granite and limestone, their chemical composition and physical nature in relationship to weathering and erosion	a. Define the term weathering b. Choose one type of mechanical weathering; c. Making good use of diagrams, explain the processes involved in the type of weathering d. Describe the landscape features which result from the weathering type you have chosen e. Choose any one climate region and identify the type of chemical weathering which will dominate the area; explain why this type of chemical weathering occurs in an area. With the aid of specific examples, explain how human activity influences the rate of weathering
39.0	<b>Slope processes and development</b>	Slope development (factors – rock type and	Write explanatory notes on the following

	<p>39.1 Enumerate and describe the factors influencing slope development</p> <p>39.2 List and explain the conditions under which slope processes of mass movement heaves etc. occur.</p>	<p>structure, climate, soil, vegetation, gradient, aspect)</p> <p>i. Slope processes of mass movement, heaves, flows slides and falls (conditions under which each occurs and effects on slopes)</p>	<p>processes of mass movement -a. heaves b. flows c. slides and d. falls.</p>
40.0	<p><b>The human impact</b></p> <p>40.1 Describe the various activities of man that facilitate the weathering of rocks</p>	<p>Human impact on weathering</p> <p>i. The impact of the activities of man on rocks, weathering and slopes (quarrying, mining, farming construction of houses, roads and bridges, acid rain, pollution and dumping</p>	<p>Each student is to choose at least any four human activities which influence rocks, weathering and slopes and write a geographical essay</p>

Candidates must study at least two of these four physical options

Two questions are set on each option in each exam series.

Questions may require the use of case studies, so it is essential that real, rather than theoretical, examples are studied

S/NO	TOPICS/OBJECTIVE	CONTENT	ACTIVITIES/REMARKS
41.0	<p><b>TROPICAL ENVIRONMENT</b></p> <p><b>Tropical climates</b></p> <p>41.1 Identify the boundaries of tropical climate belts</p> <p>41.2 Describe the characteristics of airmasses</p> <p>41.3 State the role of ITCZ</p> <p>41.4 Explain the distribution of temperature and rainfall according to seasons</p>	<p>Tropical climates</p> <p>i. Characteristics of air masses</p> <p>ii. Migration of air masses</p> <p>iii. The role of ITCZ and subtropical anticyclones, winds, ocean currents</p>	<p>Progress test</p> <p>a. Describe the two airmasses that influence the climate of west Africa. (sketched maps are essential)</p> <p>b. write</p>

		<p>monsoons, resulting climatic characteristics and distribution of temperature and rainfall in the humid and seasonally humid tropics</p>	<p>explanatory notes on:</p> <ul style="list-style-type: none"> <li>- ITCZ</li> <li>- August break (causes and effects)</li> <li>- Harmattan season</li> <li>- Why Accra plain is dry</li> </ul>
42.0	<p><b>Tropical Ecosystems</b></p> <p>42.1 Define and describe the tropical ecosystems</p> <p>42.2 Explain the concept of plant succession</p> <p>42.3 Demarcation and description of the vegetation structure of the tropical rain forest and savannah</p> <p>42.4 Draw maps of soils distribution in the tropics</p>	<p><b>Tropical ecosystems</b></p> <ol style="list-style-type: none"> <li>i. Plant communities – development of climax and plagioclimax vegetation in the tropics</li> <li>ii. Plant succession</li> <li>iii. Vegetation structure of the tropical rainforest and savannah</li> <li>iv. Nutrient cycling (Gersmehl diagrams)</li> <li>v. Energy flows and tropic levels in tropical ecosystem</li> <li>vi. Soil forming processes, types and profile characteristics, (Oxisols/latosols, tropical red and brown earths)</li> <li>vii. Tropical soil catena (role of slopes in soil formation)</li> <li>viii. Soil fertility</li> </ol>	<ol style="list-style-type: none"> <li>a. Show how the equatorial forest and the Sudan savannah are adapted to the climatic conditions under which they grow.</li> <li>b. Explain the various ways in which man and nature have been intervening in the tropical ecosystem</li> <li>c. Explain what you understand by <ul style="list-style-type: none"> <li>- climax vegetation</li> <li>- erosional effects of forest clearance</li> <li>- soil pollution</li> </ul> </li> </ol>
43.0	<p><b>Tropical landforms</b></p> <p>43.1 Describe weathering processes under humid and subhumid tropical conditions</p> <p>43.2 Explain the development of deep weathering profiles and basal surface weathering</p> <p>43.3 State the major landforms found in the granitic landscape</p>	<p><b>Tropical landforms</b></p> <ol style="list-style-type: none"> <li>i. Weathering processes under humid and sub humid tropical conditions</li> <li>ii. The development of deep weathering</li> </ol>	<ol style="list-style-type: none"> <li>a. Describe the formation of the following landforms (a) tors (b) inselberg (c) etch plains (d) pedepains and (e) duricrusts</li> </ol>

<p>43.4 List the features found in the limestone region</p>	<p>profiles and basal surface weathering</p> <p>iii. The development of landforms in granite (tors, Inselberg, etchplains, pedepains)</p> <p>iv. The development of landforms in limestone (tropical karst)</p>	<p>b. Using suitable diagrams explain how the following landforms of karst region are formed (a) stalactite (b) stalagmite (c) pillar and dry valley</p> <p>c. Enumerate the economic importance of the karst topography</p>
<p>44.0 Sustainable management of tropical environments</p> <p>44.1 Identify one area of forest ecosystem and one area of savanna ecosystem for case studies</p> <p>44.2 Evaluate the various attempted solutions at sustainable management</p>	<p>Sustainable management of ecosystem</p> <p>i. A case study of sustainable management of the tropical savannah ecosystem in Kenya</p> <p>ii. A case study of sustainable management of okomu forest reserve in udo town, ovi south west local government area of edo state, Nigeria</p> <p>OR</p> <ul style="list-style-type: none"> <li>• A case study of the sustainable management of obudu ranch in the rainforest of cross river state Nigeria</li> <li>• Problems of sustainable management of the chosen ecosystem</li> <li>• Evaluations of the attempted solution to the problems of sustainable</li> </ul>	<p>-----Same-----</p> <p>-----Same-----</p> <p>-----Same-----</p> <p>Wikki</p>

<p><b>45.0</b></p>	<p><b>COSTAL ENVIRONMENTS</b></p> <p>Wave, marine and sub – aerial processes</p> <p>45.1 Describe wave generation and characteristics</p> <p>45.2 Breaking waves, high and low energy waves are defined</p> <p>45.3 Explain the concepts of swash backwash, marine erosion, sub – aerial weathering wave transportation and deposition</p>	<p>Wave generation and characteristics (fetch, energy, refraction)</p> <ol style="list-style-type: none"> <li>i. Breaking waves, high and low energy waves (constructive and destructive)</li> <li>ii. Swash, backwash, marine erosion (hydraulic action, wave quarrying corrosion   abrasion, solution and attrition) sub-aerial weathering</li> <li>iii. Wave transportation and deposition (sediments sources and characteristics, sediment cells longshore drift)</li> </ol>	
<p><b>46.0</b></p>	<p><b>Coastal landforms of cliffed and constructive coasts</b></p> <p>46.1 Describe the major coastal features.</p> <p>46.2 Explain the mode of formation of coastal depositional features eg. Beaches in cross section (profile) and plain, swash etc</p>	<p>Cliff and wave – cut platforms- caves, arches and stacks and their evolution</p> <ol style="list-style-type: none"> <li>i. Formation of depositional features - beaches in cross (section) profile and plan, swash and drift aligned beaches, simple and compound spits, tombolos, offshore bars, barrier beaches and islands coastal dunes, tidal sedimentation saltmarshes</li> </ol>	
<p><b>47.0</b></p>	<p><b>Coral reefs</b></p> <p>47.1 Describe the characteristics and distribution of fringing reefs, barriers and atolls</p> <p>47.2 Itemise the conditions required for coral growth and development</p> <p>47.3 State the theories of atoll formation</p> <p>47.4 Enumerate the causes and results of sea level change on coral reefs</p>	<p>Characteristics and distribution of fringing reefs</p> <ol style="list-style-type: none"> <li>i. Barrier reefs and atolls</li> <li>ii. Conditions necessary for coral growth and development</li> <li>iii. Theories of atoll</li> </ol>	<p>Explain why coral can thrive under the following conditions:</p> <ol style="list-style-type: none"> <li>a. In waters which are uniformly above 20<sup>o</sup>c/68<sup>o</sup>f</li> <li>b. Where salinity is fully that of normal sea water</li> <li>c. In relatively clear,</li> </ol>

	47.5 Itemise the threat to coral reefs and possible management strategies	<p>formation</p> <p>iv. Causes and results of sea level change on coral reefs</p> <p>v. Threats to coral reefs and possible management strategies</p>	<p>sedimentary-free water</p> <p>d. Where the water is not deeper than 60m (200ft)</p> <p>e. Where there is a constant supply of plant food or plankton</p>
48.0	<p><b>Sustainable management of coasts</b></p> <p>48.1 Identify a location for a case study, illustrating some of the problems of sustainable management of a stretch or stretches of coast line and an evaluation of attempted solutions</p>	A case study of Lagos state government of Nigeria illustrating some of the problems of the sustainable management of a stretch/stretches of coastline and evaluation of attempted solutions	<p>Evaluate the control of coastal erosion e.g.</p> <p>a. Coastal erosion and build of embankment</p> <p>b. Dredging</p> <p>c. Prevention of waste dumping</p> <p>d. Oil spillage</p> <p>e. Problem of urban sprawl along the coastline</p> <p>f. Urban and regional planning</p> <p>g. Landscaping</p> <p>h. Commercial activities along the coastline</p> <p>i. Port/harbour maintenance</p> <p>j. Development of a new city by Lagos state government</p>