

JAMB Syllabus for Geography

The aim of this JAMB Geography Syllabus for Unified Tertiary Matriculation Examination (UTME), is to prepare the candidates for the Board's examination. It is designed to test their achievement of the course objectives, which are to:

1. handle and interpret topographical maps, photographs, statistical data and diagrams and basic field survey;
2. demonstrate knowledge of man's physical and human environment and how man lives and earns a living on earth surface with special reference to Nigeria and Africa;
3. show understanding of the interrelationship between man and his environment;
4. apply geographical concepts, skills and principles to solving problems.
5. understand field work techniques and the study of a local area in the field.

I. PRACTICAL GEOGRAPHY

Topics:

A. Maps

Objectives:

Candidates should be able to:

- Ai. define and identify different types and uses of maps

B. Scale and measurement

Topics:

distances, areas reduction and enlargement, directions, bearings and gradients with reference to topographical maps.

Objectives:

Candidates should be able to:

- Bi. apply the different types of scale to distances and area measurement;
ii. apply the knowledge of scale to gradients, map reduction and enlargement;

C. Map reading and interpretation;

Topics:

drawing of cross profiles, recognition of intervisibility, recognition and description of physical and human features and relationship as depicted on topographical maps.

Objectives:

Candidates should be able to:

- ci. illustrate the relief of an area through profile drawing;
- ii. interpret physical and human features from topographical maps.

D. Interpretation of statistical data;

Topics:

maps and diagrams

Candidates should be able to:

Objectives:

- Di. Compute quantitative information from statistical data, diagrams and maps,
- ii. interpret statistical data, diagrams and maps.

E. Elementary Surveying;

Topics:

chain and prismatic, open and close traverse, procedure, problems, advantages and disadvantages.

Objectives:

Candidates should be able to:

- Ei. analyse the principle and procedure of each technique;
- ii. compare the advantages of the two techniques.

F. Geographic Information System (GIS):

Topics:

components, techniques, data sources, applications

Obectives:

Candidates should be able to:

- Fi. Understand GIS and its uses.
- ii. Understand the computer system of data capturing and analysis
- iii. Express locations through the use of latitudes, longitudes, zipcodes etc.
- iv. Understand land surveying, remote sensing, map digitizing, map scanning as sources of data.
- v. Explain areas of use: Defense, Agriculture, Rural Development etc.
- vi. Identify problems with GIS in Nigeria.

II. PHYSICAL GEOGRAPHY

A. The earth as a planet

Topics:

- i. The earth in the solar system, rotation and revolution;
- ii. The shape and size of the earth
- iii. Latitudes and distances, longitudes and time

Objectives:

Candidates should be able to:

- Ai. identify the relative positions of the planets in the solar system;
- ii relate the effects of the rotation to the revolution of the earth;
- iii provide proof for the shape and size of the earth;
- iv differentiate between latitudes and longitudes;
- v relate lines of latitude to calculation of distance;
- vi relate lines of longitude to calculation of time;

B. The Earth Crust

Topics:

- i. The structure of the earth (internal and external) Relationships among the four spheres.
- ii. Rocks: Types, characteristics, modes of formation and uses
- iii. Earth's movement: Tectonic forces
- iv. Major Landforms: Mountains, Plateaux, Plains, Coastal landforms, karst topography and desert landforms

Objectives:

Candidates should be able to:

- Bi. compare the internal and external components of the earth.
- ii. understand the existing relationship among atmosphere, biosphere in terms of energy balance and water cycle.
- iii. differentiate between major types of rocks and their characteristics;
- iv. analyse the processes of formation and the resultant features;
- v. indicate the uses of rocks.
- vi. differentiate between tensional and compressional forces and the resultant landforms.
- vii. identify and describe the major landforms

C. Volcanism and Earthquakes

Topics:

- i. landforms associated with volcanic activities
- ii. landforms of Igneous Rocks
- iii. origin and types of Volcanoes
- iv. some volcanic eruptions and earthquakes

Objectives:

Candidates should be able to:

- Ci. explain the processes of volcanic eruptions and earthquakes
- ii. describe the different landforms associated with both volcanic eruptions and earthquakes.
- iii. give examples of major volcanic eruptions and earthquakes in the world.

D. Denudation processes in the tropics

Topics:

- i. weathering
- ii. erosion
- iii. mass movement
- iv. deposition

Objectives:

Candidates should be able to:

- Di. identify the agents of denudation
- ii. associate landforms with each process and agent.

E. Water Bodies

Topics:

- i. Oceans and seas (world distribution, salinity and uses)
- ii Ocean currents – types, distribution, causes and effects;
- iii Lakes – types, distribution and uses.
- iv. Rivers: Action of running water.

Objectives:

Candidates should be able to:

- Ei. locate oceans and seas on the globe;
- ii. examine the characteristics and uses of oceans and seas;
- iii. classify the types of ocean currents;
- iv. account for the distribution of ocean currents;
- v. evaluate the causes and effects of ocean currents;
- vi. identify the types and location of lakes;
- vii. indicate the characteristics and uses of lakes
- viii. identify the landforms of the different stages of a river course.

F. Weather and Climate

Topics:

- i Concept of weather and climate
- ii Elements of weather and climate
- iii Factors controlling weather and climate (pressure, air mass, altitude, continentality and winds)
- iv Classification of climate (Greek and Koppen).
- v Major climate types (Koppen), their characteristics and distribution.
- vi Measuring and recording weather parameters and instruments used.
- vii The basic science of climate change.

Objectives:

Candidates should be able to:

- Fi. differentiate between weather and climate;
- ii differentiate between the elements of weather and climate;
- iii isolate the factors controlling weather and climate;
- iv compare Koppen's and Greek's classifications
- v identify the major types of climate according to Koppen;
- vii relate the weather instruments to their uses.
- viii define climate change
- ix understand the causes of climate change
- x understand the effects and remedies of climate change.

G. Vegetation

Topics:

- i Factors controlling growth of plants
- ii The concept of vegetation e.g. plant communities and succession
- iii Major types of vegetation, their characteristics and distribution,
- iv Impact of human activities on vegetation.

Objectives:

Candidates should be able to:

- Gi. trace the factors controlling the growth of plants;
- ii analyse the process of vegetation development;
- iii identify the types, their characteristics and distribution;
- iv assess the impact of human activities on vegetation;

H. Soils

Topics:

- i. Definition and properties
- ii. Factors and processes of formation
- iii. Soil profiles
- iv. Major tropical types, their characteristics, distribution and uses;
- v. Impact of human activities on soils.

Objectives:

Candidates should be able to:

- Hi. classify soils and their properties;
- ii. isolate the factors of formation;
- iii. differentiate between the different types of soil horizons and their characteristics;
- iv. compare the major tropical soil types and uses of soils;
- v. account for the distribution and uses of soils;
- vi. assess the impact of human activities on soils.

I. Environmental Resources;

Topics:

- i Types of resources (atmospheric, land, soil, Vegetation and minerals)
- ii The concept of renewable and non- renewable resources;

Objectives:

Candidates should be able to:

- Ii. interpret the concept of environmental resources;
- ii. relate environmental resources to their uses;
- iii. differentiate between the concepts of renewable and non-renewable resources

J. Environmental interaction:

Topics:

- i Land ecosystem
- ii Environmental balance and human interaction

Objectives:

Candidates should be able to:

- Ji. identify the components of land ecosystem;
- ii. establish the interrelationship within the ecosystem;
- iii. interpret the concept of environmental balance;
- iv. analyse the effects of human activities on land ecosystem.

K. Environmental hazards:

Topics:

- i. Natural hazards (droughts, earthquakes, volcanic eruptions, flooding)
- ii. Man-induced (soil erosion, deforestation, pollution, flooding and desertification)
- iii. Effects, prevention and control of hazards.

Objectives:

Candidates should be able to:

- Ki. identify the natural hazards and their causes;
- ii. relate the human-induced hazards to their causes;
- iii. locate the major areas where they are common and their effects;
- iv. recommend possible methods of prevention and control.

L. Environmental Conservation

Objectives:

Candidates should be able to:

- Li. Explain with examples environmental conservation
- ii discuss the different methods of environmental conservation.
- iii Explain the need/importance of environmental conservation

III. HUMAN GEOGRAPHY

A. Population

Topics:

- i. World population with particular reference to the Amazon Basin, N.E. U.S.A., India, Japan and the West Coast of Southern Africa.
- ii. Characteristics – birth and death rates, ages/sex structure.
- iii. Factors and patterns of population distribution;
- iv . Factors and problems of population growth.

Objectives:

Candidates should be able to:

- Ai. Define different concepts of population;
- ii. identify the characteristics of population (growth rates and structure);

- iii. determine the factors and the patterns of population distribution;
- iv. identify the factors and problems of population growth;
- v. relate the types of migration to their causes and effects;
- vi. account for the ways population constitute a resource.

B. Settlement with particular reference to Western Europe, the USA, Middle East and West Africa:

Topics:

- i. Types and patterns: rural and urban, dispersed, nucleated and linear;
- ii. Rural settlement: classification, factors of growth and functions;
- iii. Urban settlement – classification, factors of growth and functions.
- iv. Problems of urban centres
- v. Interrelationship between rural and urban settlements.

Objectives:

Candidates should be able to:

- Bi. differentiate between types of settlements; (rural and urban)
- ii. classify the patterns and functions of rural settlements;
- iii. classify the patterns and functions of urban settlements;
- iv identify the problems of urban centres;
- v. establish the interrelationship between rural and urban settlements;

C. Selected economic activities

Topics:

- i. Types of economic activities: primary, secondary, tertiary and quaternary;
- ii. Agriculture: types, system, factors and problems
- iii. Manufacturing industries, types, locational factors, distribution and socio- economic importance and problems of industrialization in tropical Africa.
- iv. Transportation and Communication types, roles in economic development and communication in tropical Africa.
- v. World trade-factors and pattern of world trade, major commodities (origin, routes and destinations).
- vi. Tourism: definition, importance, location, problems and solutions.

Objectives:

Candidates should be able to:

- i. identify the types of economic activities;
- ii. differentiate between the types of economic activities;
- iii. assess Agriculture as an economic activity;
- iv. compare the types of manufacturing industries;
- v. identify the factors of industrial location;
- vi. examine the socio-economic importance of manufacturing industries;
- vii. give reasons for the problems of industrialization in tropical Africa;
- viii. differentiate between the types and means of transportation and communication;
- ix. assess the economic importance of transport;
- x. give reasons for the problems of transportation in tropical Africa;
- xi. relate the factors to the pattern of world trade.
- xii. classify the major commodities of trade in terms of their origins, routes and destination.
- xiii. Analyse tourism as an economic activity.

IV. REGIONAL GEOGRAPHY

A. Broad outline of Nigeria

Topics:

- i. Location, position, size, political division (states) and peoples;
- ii Physical settling: geology, relief, landform, climate and drainage, vegetation and soils;
- iii Population: size, distribution, migration, (types, problems and effects);
- iv Natural Resources: types (minerals, soils, Water, vegetation etc) distribution, uses and conservation.

Objectives:

Candidates should be able to:

- Ai. describe the location, size and political divisions of Nigeria;
- ii. identify the ethnic groups and their distributions;
- iii. relate the components of physical settings to their effects on human activities;
- iv. account for the pattern of population distribution;
- v. examine the types of migration, their problems and effects;
- vi. identify the types of natural resources and their distribution;
- vii. indicate their uses and conservation;

B. Economic and Human Geography:

Topics:

- i. Agricultural Systems: the major crops produced, problems of agricultural development in Nigeria.
- ii. Manufacturing Industries: factors of location, types of products, marketing and problems associated with manufacturing;
- iii. Transportation and Communication: modes of transportation and communication and their relative advantages and disadvantages;
- iv. Trade: Regional and International Trade, advantages and disadvantages;
- v. Tourism: types, importance, problems and solutions.

Objectives:

Candidates should be able to:

- Bi. compare the farming systems practiced in Nigeria;
- ii. identify the crops produced and the problems encountered;
- iii. identify the types and location of the major manufacturing industries;
- iv. determine the factors of industrial location and the problems associated with the industries;
- v. establish the relationship between transport and communication;
- vi. relate the modes of transportation and communication to their relative advantages and disadvantages;
- vii. classify the major commodities of regional and international trade;
- viii. identify reasons for tourism and tourist centres;
- ix. account for the problems and solutions

C. ECOWAS

Topics:

- i. Meaning and objectives
- ii. Member states
- iii. Advantages and benefits
- iv. Disadvantages, problems and solutions

Objectives:

Candidates should be able to:

- ci. State the meaning, purpose and objectives;
- ii. identify and locate the member countries;

iii. evaluate the prospects and problems of the organization.

RECOMMENDED TEXTS

Adeleke, B.O. Areola .O. 2002 and Leong, G.C. Certificate Physical and Human Geography for Senior Secondary School (West African Edition), Ibadan: Oxford.

Bradshaw, M. et al (2004) Contemporary World Regional Geography, New York: McGraw Hill

Bunet, R.B and Okunrotifa, P.O.(1999) General Geography in Diagrams for West Africa, China: Longman.

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Fellman, D. et al (2005) Introduction to Geography (Seventh Edition) New York: McGraw Hill

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Iloeje, N. P(1999) A New Geography of West Africa, Hong Kong: Longman

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Udo, R.K(1970) Geographical Regions of Nigeria, London: Longman.

Waugh, D. (1995) Geography an Integrated Approach (Second Edition), China: Nelson

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Adegoke M.A (2013), A Comprehensive Text on Physical, Human and Regional Geography.