



UNIVERSITY OF GHANA

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DEPARTMENT OF TEACHER EDUCATION SCHOOL OF EDUCATION AND
LEADERSHIP COLLEGES OF EDUCATION END OF SEMESTER ONE EXAMINATIONS
FOR LEVEL 200, 2023/2024 B.ED. PROGRAMME

COURSE CODE: TEJS 221

COURSE TITLE: BIOPHYSICAL ENVIRONMENTAL SYSTEMS

Instruction: Answer all questions in Section A and any three questions in Section B.

Time: 2 hours

SECTION A**[25 Marks, One (1) Mark for Each Question]****Answer all the questions in this section in the answer booklet.**

1. The flat topographical landscape of the matured stage of the Davian concept is known as?
 - A. Canyon
 - B. Polycyclic
 - C. Peneplain
 - D. Monadnocks
 - E. Inselbergs
2. Geomorphological concepts which postulate that natural laws are invariant in time and space are known as?
 - A. Plate tectonism
 - B. Geographical cycle
 - C. Catastrophism
 - D. Uniformitarianism
 - E. Continental drift
3. Tectonic landforms include the following except:
 - A. Mountain ranges
 - B. Volcanic cones,
 - C. Volcanic plug
 - D. Caldera
 - E. Fault scarps.

4. The disintegration of rock and soil aggregates by physical processes into smaller fragment without any substantial change in their chemical composition of the rock is referred to as
- Biological weathering
 - Chemical weathering
 - Mechanical weathering
 - Residual weathering
5. Change in rock colour to red or rust is an indication that the rock is being disintegrated chemically through the process of
- Hydration
 - Oxidation
 - Carbonation
 - Hydrolysis
6. Which of the following generally prepare rocks for erosive activity?
- Lithification
 - Weathering
 - Soil creep
 - Tectonic activity
7. Which branch of geography studies the past and present-day spatial distributions of life on earth?
- Biogeography
 - Human Geography
 - Physical Geography
 - Practical Geography
8. Which of these weathering processes promotes the weathering of feldspars into clay minerals?
- Carbonation
 - Hydrolysis
 - Oxidation
 - Solution
9. Diastrophism involves all of the underlisted processes except:
- faulting
 - folding
 - C. earthquakes
 - volcanicity.
10. The most 'recently' formed or 'younger' fold mountains include all the following except:
- Rockies
 - Andes
 - Cape Ranges
 - Alps

11. Which of these valleys is an example of a rift valley created by tectonic plate movements?
- A. Nile Valley
 - B. Amazon Valley
 - C. Great Rift Valley
 - D. Yosemite Valley
12. Which type of volcanic rock is formed when magma cools and solidifies within the crust?
- A. Basalt
 - B. Obsidian
 - C. Granite
 - D. Pumice
13. What is a laccolith?
- A. A dome-shaped igneous rock beneath the earth's crust
 - B. A mushroom-shaped igneous rock intruded between bedding planes
 - C. A vertical sheet of igneous rock formed across bedding planes
 - D. An inclined sheet of igneous rock formed in volcanic cones
14. These are mostly formed in warm, sub-humid or semi-arid climates, where the natural vegetation is predominantly grass, savanna, open forest, or desert shrub.
- A. Aridisols
 - B. Spodosols
 - C. Mollisols
 - D. Vertisols
15. A landform that is formed when two normal faults dropped down is known as:
- A. horst
 - B. graben
 - C. deep valley
 - D. shallow valley
16. Which of the following landforms are produced by prolonged denudation of pre-existing mountains?
- A. residual mountain
 - B. block mountain
 - C. over folds
 - D. recumbent fold
17. What is the largest form of water found in Siberia?
- A. Ice
 - B. Gaseous
 - C. Liquid
 - D. Water droplets
18. Which component of soil provides support for plants and is the main source of plant nutrients?
- A. Inorganic matter
 - B. Living organisms

- C. Mineral or organic matter
D. Soil water
19. Which layer of the atmosphere contains about 75% of the air and all water vapour?
A. Stratosphere
B. Mesosphere
C. Troposphere
D. Thermosphere
20. Which layer of the atmosphere contains the ozone layer?
A. Mesosphere
B. Stratosphere
C. Thermosphere
D. Troposphere
21. What is the name of the transitional process of water from the soil to the atmosphere?
A. Water cycle
B. Evaporation
C. Transpiration
D. Condensation
22. Which of the following factors/conditions is not necessary for seed germination?
A. Water
B. Soil
C. Temperature
D. Light
23. are regions where earth's tectonic plates are continuously created.
A. Convergence zone
B. Mid-ocean ridges
C. Subductive zones
D. Transformed zones
E. Divergent zones
24. Which of the continents form the core of Pangaea?
A. Africa
B. Europe
C. North America
D. South America
E. Asia
25. The crests of folds are referred to as:
A. Synclines
B. Symmetrical
C. Anticlines
D. Monoclines
E. Isoclinal

SECTION B

[75 Marks. Each Question is twenty-five (25) Marks]
Answer any three questions in this section.

Answer three questions from this Section. All questions carry equal marks

1. a) Define the term climate. (5 marks)
b) Discuss four factors that influence weather and climate of a place. (20 marks)
2. a) With reference to an illustration, describe the processes involved in the hydrological cycle. (13 marks)
b) Explain four importance of the hydrosphere to humankind. (12 marks)
3. Briefly describe the following intrusive volcanic features. (5 marks each)
 - a) Dykes
 - b) Sills
 - c) Laccoliths
 - d) Batholiths
 - e) Phaccolith
4. a) Define the term soil. [2 marks]
b) Describe five (5) properties or characteristics of soil [15 marks]
c) Explain four (4) economic importance of vegetation [8 marks]
5. a) Describe the types of soil erosion [6 marks]
b) Discuss 3 causes and 3 effects of soil erosion. [18 marks]