

KATHMANDU UNIVERSITY
End Semester Examination
January/February 2025

Marks Scored:

Level : B.E.

Year : IV

Exam Roll No. :

Time: 30 mins.

Course : GEOM 415

Semester : I

F. M. : 10

Registration No.:

Date 04 FEB 2025

SECTION "A"

[20Q. × 0.5 = 10 marks]

Choose the most appropriate answer from the given alternatives and encircle.

1. Which of the following statement is not true according to definition of (GTZ 1995).
 - a. Land use planning is an all exclusive process
 - b. Land use planning is a dialogue
 - c. Land use planning results in a legally binding land use plan
 - d. Land use planning is an interactive process.
2. In Land Use Policy 2072 (Land Use Policy 2015), which of the following statement has been mentioned
 - a. "The Land Use Policy, 2013 (2069) has been repealed."
 - b. "The Land Use Policy, 2003 (2059) has been repealed."
 - c. "The Land Use Policy, 1993 (2049) has been repealed."
 - d. "The Land Use Policy, 1983 (2039) has been repealed."
3. Land use zoning is explicitly categorized as following land use instrument
 - a. Regulatory Instrument
 - b. Economic Instrument
 - c. Financial Instrument
 - d. Behavioral change Instrument
4. The key concept underlying in integrating land use and transport is
 - a. Accessibility is more important than Mobility
 - b. Mobility is more important than Accessibility
 - c. Accessibility and Mobility both are important
 - d. Accessibility and Mobility both are not important
5. Which boundary, if successfully implemented and enforced, can create "sharp" edges to the built-up area – clearly recognizable from the air
 - a. Service Boundary
 - b. Growth Boundary
 - c. Both Service and Growth Boundaries
 - d. Neither Service and nor Growth Boundaries
6. Locational incentives' is a type of _____ instrument
 - a. Regulatory
 - b. Economic
 - c. Financial
 - d. Behavioral change
7. The taxes/fees imposed on landowners who have benefited from new public infrastructure within a given city zone is known as
 - a. Idle land taxes
 - b. Cost recovery fees
 - c. Betterment fees
 - d. Impact fees

8. The total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide (CO₂) is known as
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- a. Carbon Sinks
c. Carbon Footprints
- b. Carbon Sequestration
d. Carbon inhaler
9. The land use model developed by Ernest Burgess in 1925 is known as
- a. Sector Model
c. Multiple Nuclei Model
- b. Concentric Ring Model
d. Polycentric Model
10. The ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters is termed as
- a. Coping Capacity
c. Critical Facilities
- b. Contingency planning
d. Capacity Development
11. People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses is termed as
- a. Environmental degradation
c. Environmental impact
- b. Ecosystem services
d. Exposure
12. The difference between land pooling and land acquisition is
- a. Land pooling is voluntary and acquisition is involuntary
b. Land pooling is involuntary and Land acquisition is voluntary
c. Land pooling and Land Acquisition are voluntary
d. Land pooling and Land Acquisition are involuntary
13. Which of the following Land Use Zone is not included in the Land Use Act 2076
- a. Mines and Minerals Zone
b. Building Materials (Stone, Sands, Concrete) Excavation Zone
c. Cultural and Archaeological Zone
d. Public Use and Open Space Zone
14. LARES is the GIS based software that is based on the following valuation approach
- a. Area-based approach
b. Value-based approach
c. Both Area and Value-based approach
d. Neither Area nor Value based approach
15. Forces driving people and business away from the city center towards the suburbs and rural-urban fringe is known as
- a. Centrifugal force
b. Centripetal force
- c. Spatial Elements
d. Spatial Dynamics
16. The concept of sustainable urban development was first introduced into urban land use planning through
- a. Agenda 41
b. Agenda 61
c. Agenda 21
d. Agenda 31

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17. Carbon finance facilitates the financial reward through _____ for reducing greenhouse gas emissions by emitters in developing countries
- a. Carbon Sinks
 - b. Carbon Sequestration
 - c. Carbon Intensity
 - d. Carbon Credits
18. The legislative origins of land readjustment were established in _____ by Franz Adickes.
- a. 1791
 - b. 1902
 - c. 1923
 - d. 1986
19. Land Resource Mapping Project (LRMP) was started in _____
- a. 1960's
 - b. 1970's
 - c. 1980's
 - d. 2000
20. Performance zoning is considered an alternative to traditional _____
- a. Land Use Categories
 - b. Land Use Zoning
 - c. Land Use Plan
 - d. Land Readjustment

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SECTION "B"

[6Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. Explain overall concept of sustainable development goals.
2. Explain how carbon sequestration can be obtained from land use planning.
3. How to integrate the provision of environmental infrastructure with land use planning?
4. Write four difference between service boundary and growth boundary.
5. Explain how climate change mitigation is related to land use planning.
6. Explain from a technical perspective, how GIS can be applied in the land valuation process while reallocating the land in the Land Readjustment process?
7. Explain the risk-sensitive land use planning in terms of flood hazard.
8. Write a short note on the following concept that supports in urban land use planning
 - a. Land Banking
 - b. Locational Incentives
 - c. Land Value Capture
 - d. Idle Land Taxes

SECTION "C"

[2Q. × 8 = 16 marks]

Attempt *ALL* questions.

9. Explain the principle of land readjustment in relations to land ownership. What are the strengths and weaknesses of land readjustment? How land readjustment can be linked with urban land use planning? Explain by giving an example in the case of Nepal?
10. Explain the various timelines and scenarios of land use plan and its implementation in Nepal. What are the policies and acts that govern the process of land use plan and explain its effectiveness in obtaining the various goals related to sustainable development? Explain by giving an example in the case of Nepal.

