

KATHMANDU UNIVERSITY
End Semester Examination
February/March, 2019

Marks Scored:

Level : B. E.
Year : IV

Course : GEOM 415
Semester: I

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date FEB 21 2019

SECTION "A"

[20 Q. × 0.5 = 10 marks]

Choose the most appropriate answer among the given choices.

1. Land use planning can contribute to climate change mitigation in the following ways:
(multiple answer is possible)
 - a. By reducing the need to travel and strengthen orientation toward denser development near public transportation.
 - b. By encouraging urban expansion.
 - c. By fostering urban densification through higher densities and mixed-use development.
 - d. By redeveloping the urban layout to reduce energy use in the city.
2. 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
3. Which of the following is considered as an economic instrument for land use planning for improving efficiency of land market?
 - a. Campaigns and Awareness Raising
 - b. Watch Dogging/Public Supervision
 - c. Transfer of developments rights
 - d. Community Organizing
4. The centrifugal and centripetal forces that bring land use change are know as
 - a. Spatial elements
 - b. Spatial dynamics
 - c. Extensification
 - d. Densification
5. Densification is not associated with the process of
 - a. Infilling
 - b. Redevelopment of inner areas
 - c. Industrial relocation
 - d. Corridor development
6. The land use model developed by Ernest Burgess in 1925 is known as
 - a. Sector Model
 - b. Concentric Ring Model
 - c. Multiple Nuclei Model
 - d. Polycentric Model
7. The land management technique for guiding the conversion of privately owned land in the urban periphery from rural to urban uses through the infrastructure mechanism is known as
 - a. Land Readjustment
 - b. Site and Service
 - c. Guided Land Development
 - d. Land Sharing

8. Land use zoning is explicitly categorized as following land use instrument
 - a. Regulatory Instrument
 - b. Economic Instrument
 - c. Financial Instrument
 - d. Behavioral change Instrument

9. Land use planning which is also known as a form of the blueprint is
 - a. Master Planning
 - b. Strategic spatial planning
 - c. Urban reference plan and urban grid
 - d. Guided land development

10. 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

11. 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

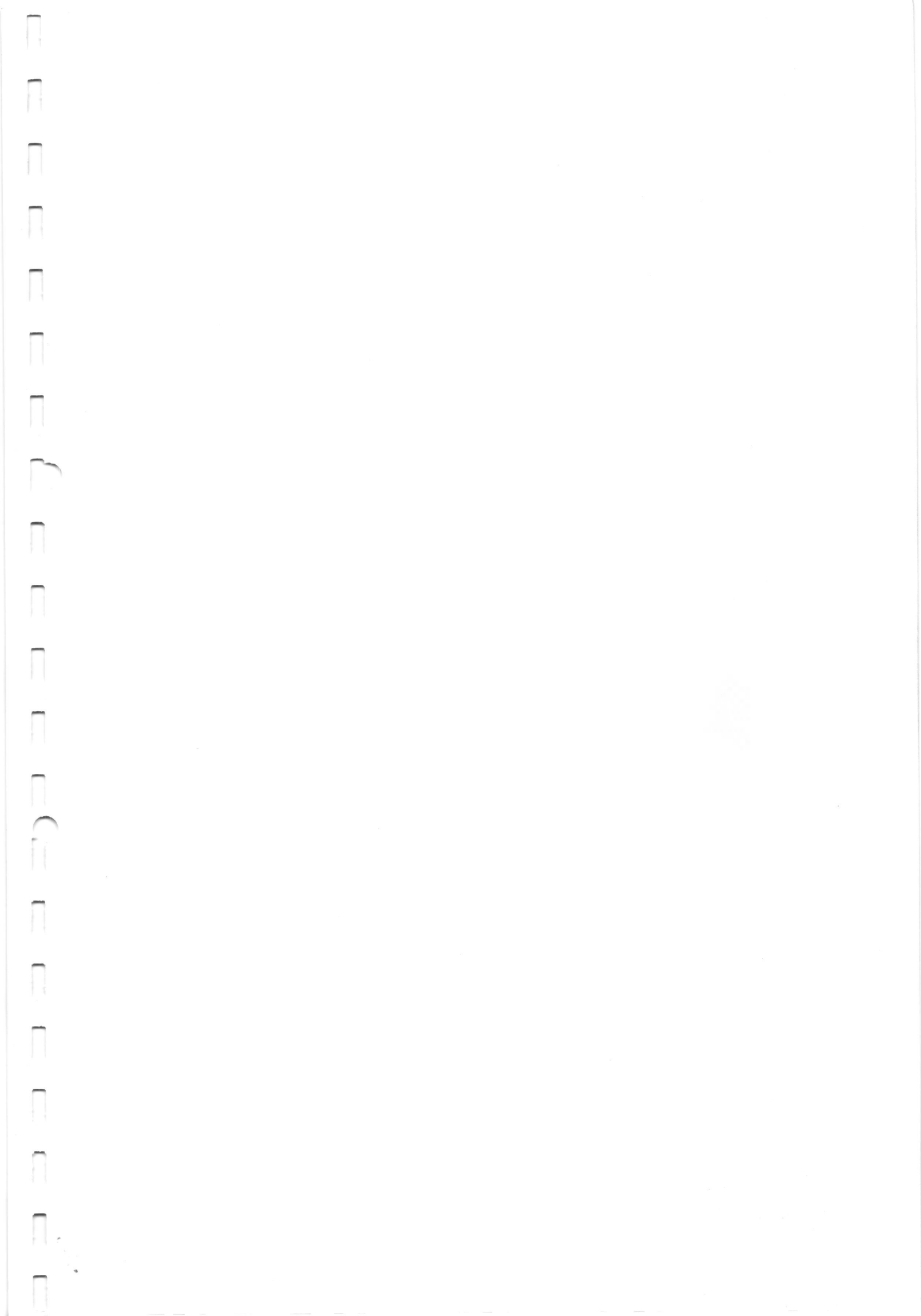
12. How many times, urban areas with a population in excess of 100,000, can be expected to increase their land area by 2030, in developing countries (according to the World Bank data)?
 - a. 1.5 times
 - b. Double
 - c. 2.5 times
 - d. 3 times

13. ‘Locational incentives’ is a type of instrument
 - a. Regulatory
 - b. Economic
 - c. Financial
 - d. Behavioral change

14. 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

15. The model for raising capital for key infrastructure in which, private sector construct the public facility & operate the facility for a number of years & transfer the facility to the public authority, is known as
 - a. BOT(Build-own-transfer)
 - b. BOO(Build-own-operate)
 - b. BTO(Build-transfer-operate)
 - d. BOB(Build-own-Build)

16. According to the study of the World Bank regarding magnitude of global urban expansion
 - a. Densities in developing country cities are declining faster than densities in developed countries
 - b. Densities in both developed country and developing country are declining
 - c. Densities in developed country cities are declining faster than densities in developing countries
 - d. Densities in both developed country and developing country are inclining



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F. M. : 40

SECTION "B"
[6Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. Why land use planning is important?
2. How does land use influence infrastructure network configuration and cost?
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 earthquake hazard.
8. Write a short note on the following concept that support in urban land use planning
 - a) Land Banking
 - b) Blind Land
 - c) Land Value Capture
 - d) Transfer of development rights

SECTION "C"
[2Q. × 8 = 16 marks]

Attempt *ALL* questions.

9. Explain the principle of land readjustment in relations to land ownership. What are strengths and weaknesses of land readjustment? How land readjustment can be linked with urban land use planning? Explain by giving an example from the case of Nepal?
10. Explain the basic theory underlying the risk-sensitive land use planning. How Geomatics Engineers can play a role in implementing risk-sensitive land use planning in Nepal? According to your understanding, explain the scenario of land use planning in general, and risk-sensitive land use planning in particular, in our country, from an organizational and institutional perspective.

