

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA

L-4/T-2 B. Urp. Examinations 2017-2018

Sub : **PLAN 471** (Natural Hazards and Disaster Management)

Full Marks : 210

Time : 3 Hours

The figures in the margin indicate full marks.

USE SEPARATE SCRIPTS FOR EACH SECTION

SECTION – A

There are **FOUR** questions in this section. Answer any **THREE**.

1. (a) Critically explain the different aspects of disaster management system in Bangladesh. (20)
(b) Discuss the disaster management initiative required to be adopted for drought at different phases of the disaster. (15)
2. (a) Name the tropical cyclone basin in which Bangladesh lies. Analyze the climatic as well as other conditions which affect formation of tropical cyclone in this country. (25)
(b) Explain the causes and effects of drought in Bangladesh through cause-effect diagram. (10)
3. (a) “The Standing Orders have been prepared with the objective of making the concerned persons understand their duties and responsibilities regarding disaster management at all levels, and accomplishing them”. – Explain how it intended to achieve the objective through Standing Orders on Disaster, 2010. (15)
(b) Describe the conditions which affect the track of a cyclone. Describe how this track is observed and predicted for cyclone warning. (10+10=20)
4. (a) As a deltaic plain, Bangladesh annually experiences riverbank erosion resulting in severe sufferings of the people. Describe, how you would prepare riverbank erosion risk reduction plan for Bangladesh. (23)
(b) Compare applicability of tornado intensity scales- TORRO and Fujita. (12)

SECTION – B

There are **FOUR** questions in this Section. Answer any **THREE**.

5. (a) Adaptation to climate change needs to be considered during project design – explain with an example. (10)
(b) Why is it rational for Bangladesh to focus more on adaptation than mitigation measures to address climate change impacts? (10)
(c) A resident community has certain capacities in three phases, discuss these phases in brief. (15)

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6. (a) “Pressure-Release Model” is a framework with outlines of hierarchy of causal factors that together creates the pre-conditions of disaster”-explain this statement in case of earthquake hazard in Dhaka. (20)
- (b) Environmental management tools and financial tools play significant role towards disaster risk reduction – explain with relevant examples. (15)
7. (a) Explain how urbanization as linked with urban flooding? Briefly discuss some measures those can be adopted to address urban flooding in Dhaka. (5+15)
- (b) Briefly discuss following two thematic areas of Bangladesh Climate Change Strategy Action Plan (BCCSAP), 2009 (8)
- (i) Food security, social protection and health
- (ii) Mitigation and low carbon development.
- (c) Write short note on the elements of Early Warning Chain. (7)
8. (a) What do you understand by the term “Risk Sensitive Land Use Planning(RSLUP)”? How the concept of RSLUP can be incorporated in the land use planning process of Bangladesh. (5+15)
- (b) Briefly discuss flood damage reduction measures. (10)
- (c) Write a short note on “Post Disaster Review” (5)
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BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA

L-4/T-2 BURP Examinations 2017-2018

Sub : **PLAN 453** (Environmental and Resource Economics)

Full Marks : 210

Time : 3 Hours

The figures in the margin indicate full marks.

USE SEPARATE SCRIPTS FOR EACH SECTION

SECTION – A

There are **FOUR** questions in this section. Answer any **THREE**.

1. (a) Explain how resource system characteristics affect CPR management. (10)
 (b) Clarify the condition which allows Travel Cost Method (TCM) to value features of specific sites? (5)
 (c) Graphically prove that along Production Possibility Frontier (PPF), increase in production of one good must shift resources away from producing the other good. (15)
 (d) Define 'User Cost' with real-life examples. (5)

2. (a) What are the conditions that must be fulfilled to ensure efficient allocation of surface water? (10)
 (b) Criticize the scope of TCM in measuring the price of a visit to a particular site. (12)
 (c) Compare between bequest value and existence value associated with environmental preservation. (8)
 (d) Why marginal extraction cost of groundwater would rise over time? (5)

3. (a) How did 'Usufructory Right' place public ownership on water? (5)
 (b) Graphically explain that water sales should involve a positive marginal scarcity rent. (10)
 (c) What are the limitations of Hedonic Pricing Method? (10)
 (d) Compare between Revealed and Stated Preference with appropriate examples. (10)

4. (a) Why do users place different marginal scarcity rent on common property resource? (5)
 (b) Write short notes on the followings: (3×10=30)
 - (i) Water Pricing System
 - (ii) Elicitation Methods of CVM
 - (iii) Indirect Costs of Environmental Protection

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SECTION – B

There are **FOUR** questions in this Section. Answer any **THREE**.

All abbreviations have their usual meaning. Draw appropriate graph/diagram.

5. (a) Why classical and neo-classical thought of economics are blamed for environmental degradation and resource exploitation by environmental and resource economists? **(4)**
- (b) “Degradation of environment is expected whenever many individual use a scarce resource as common” – Which theory postulates this? What are the arguments against this hypothesis? **(2+9)**
- (c) Describe with example the different kinds of liability insurance that are available to compensate environmental harm by pollution beyond allowance limit. **(14)**
- (d) Explain with appropriate diagram how market could optimize production considering waste generated above assimilation level. **(6)**
6. (a) Explain the different types of total economic value (TEV) considered by economists to appraise the market price of different environmental goods and services. **(14)**
- (b) Write down the basic principles of steady state economy. Why economists argue that ‘entropy law’ implies limit to growth. **(4+2)**
- (c) “Both producer and consumer losses by imposition of pigouvian tax” – explain. **(10)**
- (d) “There are two types of environmentalism in the context of economics” – do you agree? Justify your answer. **(5)**
7. (a) Explain graphically why economic instruments are better than command and control approach instruments **(8)**
- (b) Environmental economists suggested many kinds of ‘standard’ as tool for pollution control. Describe them with example. **(18)**
- (c) Explain by example how trading of environmental permit lower abatement cost of pollution. **(9)**
8. Write short notes on any five of the following **(5×7=35)**
- (a) Material balance model
- (b) Causes of government failure in protecting environment
- (c) Subsidiarity principle
- (d) Charges as economic instrument
- (e) Subdivision regulation as a command and control approach tools
- (f) Conditions of Pareto optimality
- (g) Cowboy economy and spaceship economy
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SECTION – A

There are **FOUR** questions in this Section. Answer any **THREE**.

1. (a) What are the challenges of managerial governance approach? (5)
 (b) Justify the statement – “Level of decentralization affect local government functions”. (15)
 (c) Describe how level of involvement of various actors differ in informal development process. Use necessary diagram. (15)
2. (a) List down the governance activities with necessary performance criteria required to keep essential pourashava services functional. (15)
 (b) Describe how governance approaches have evolved over time. (15)
 (c) Draw a diagram showing local government structure of Bangladesh. (5)
3. (a) Compare among the aims of different governance approaches. (10)
 (b) Briefly discuss major challenges faced by contemporary urban governance system prevailing in developing countries. Choose a specific sector to provide necessary examples. (15)
 (c) Describe the opportunities of effective governance elements. (10)
4. (a) What is the rationale behind ‘Spatial and Temporal Governance? (5)
 (b) Write short notes on the followings: (13×10=30)
 (i) Shared Governance
 (ii) UGIAP Performance Indicators for Urban Planning
 (iii) Informal Governance Mechanism for Revenue Collection.

SECTION – B

There are **FOUR** questions in this Section. Answer any **THREE**.

5. (a) Define urban management. How will you differentiate from urban governance and urban planning? (8+7)
 (b) Although urban management projects or programs are multifaceted and hence complex to design and execute, these are several successful examples in many cities of the world including in developed country Singapore, rapidly developing country China, developing countries Nepal and Bangladesh

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- and in African countries Nigeria, Ethiopia and Burundi. Describe any successful example from any of the stated countries. Also critically discuss the reason behind the success of the project. **(12+8)**
6. (a) What is development management? How 'form based codes' are better than traditional zoning codes' in regulating development? **(5+7)**
- (b) How effective planning and management tools can control land speculation? Discuss. **(8)**
- (c) Explain six criteria through which performance of local taxation can be measured? **(15)**
7. In some private organization you will find 'customer' care services, whereas in government offices you will see 'complaint' boxes or desks. Do these two things reflect on any difference of approaches in service management and provisioning? Justify your answer along with discussion on the pros and cons of relevant management approaches. What are other approaches? Do you think they, if adopted, can improve the service quality in these two types of organization? Explain. **(25+10)**
8. (a) "Communication and public relations are to be maintained both internally and externally" while managing, operating any agency or project. Why? **(10)**
- (b) Who are these internal and external stakeholders as far as communication and public relation are concerned? Describe. **(10)**
- (c) "Only managing cities is not enough, sustainability of management activities is similarly, if not more, important". Elaborate this statement with respect to different types of sustainabilities. **(15)**
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