

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 – AThere are **FOUR** questions in this Section. Answer any **THREE**.

1. (a) Distinguish between –
 - (i) Static and dynamic optimization for water resource allocation. (8)
 - (ii) Opportunity cost and scarcity rent. (7)
 - (c) Briefly explain the limitation of Zonal Travel Cost Method (ZTCM) while estimating people's willingness to pay for the environment. (20)

2. (a) Suppose 20 units of a depletable resource has to be allocated between two periods. Assume the demand is constant in two periods. If the marginal willingness to pay is given by $P = 8 - 0.4q$ and constant marginal cost is 2 Taka, then calculate the total surplus/net benefit derived from the use of resources using a discount rate of 10%, when –
 - (i) 15 units of the resource are used in the first period. (10)
 - (ii) 9.65 units of resource are used in the final period. (10)
 - (iii) Using, the concept of 'augmented marginal cost', explain the variation of resource allocation found in (i) and (ii). (10)

(b) Mention the characteristics of open access resource. (5)

3. (a) Efficient allocation of surface water must- (25)
 - (i) share water resources among competing users, and
 - (ii) handle inter-and intra-annual supply variability.

Explain the statement with necessary diagram.

(b) Briefly discuss the advantages of 'Contingent Valuation Method (CVM)'. (10)

4. (a) Different elicitation methods are used in CVM to find people's willingness to pay for a particular environmental amenity. Discuss the usefulness of these methods briefly. (10)
 - (b) Do you think the National Water Policy of Bangladesh (1999) addresses issues related to all forms of surface and ground water in an efficient and equitable manner? Explain your answer with necessary arguments. (13)
 - (c) Mention the direct and indirect costs of protecting the natural environment. (12)

PLAN 453

SECTION – B

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

5. (a) Explain the view of classical and neo-classical economist on economics and society. (6)
(b) Describe Coase's theorem graphically. What are the criticism raised against the theory? (14)
(c) "Economically it is better to impose tax than setting standard for managing pollution" – do you agree? Justify your answer with appropriate diagram. (9)
(d) Describe the reasons why it is not possible to attain economic efficiency? (6)
6. (a) Describe graphically how Pareto Optimality could be achieved in a two person economic system. What are the criticism raised against Pareto Model? How Dr. Hick and Dr. Kaldor tried to overcome the criticism? (13+2+5)
(b) "Hardin's 'Tragedy of Commons' is often against exploiting the poor"- do you agree? Justify your answer by describing the theory. (1+8)
(c) Explain, 'Product Standard' and 'Emission standard' with example from Bangladesh. (6)
7. (a) What are rationale behind government intervention on market to protect the environment? (12)
(b) Write down the differences between 'cowboy' and 'spaceman' economy. (8)
(c) What are the principles that should be followed before implementing any tools of command and Control approach for managing pollution? (15)
8. (a) Show graphically who bears the incidencer of 'green tax'? (10)
(b) Write short notes on (Any Five) (5×5)
(i) Material balance model,
(ii) Variances of Tradeable Permit,
(iii) Zonning as a tool for managing pollution,
(iv) Median Voter theorem,
(v) Priciples of steady state economy,
(iv) Edgeworth Box.
-

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 – AThere are **FOUR** questions in this section. Answer any **THREE**.

1. (a) Explain the reasons behind pest infestation in a region. (14)
- (b) "The life cycle of a tornado consist of four different stages" – describe the stages. (16)
- (c) "Socio-economic drought is the manifestation of other types of drought" – explain. (5)

2. (a) Describe the process of risk assessment for a hazard. (14)
- (b) What are the factors that determine the track of a cyclone? (4)
- (c) Describe the mechanism of lightening. (17)

3. (a) Explain the mechanism of tornado formation in Bangladesh. (16)
- (b) Define erosion. Describe the ways a river erodes materials from its bed and bank. (3+16)

4. (a) Write short notes on (any five) (4×5=20)
 - (i) Structure of tropical storm
 - (ii) Regulatory framework of disaster management in Bangladesh
 - (iii) Characteristics of riverbank erosion in Bangladesh
 - (iv) Organizational setup of Cyclone Preparedness Program
 - (v) Impacts of deforestation
 - (vi) Different forms of tornado
- (b) Explain with example the factors of vulnerability that have to be considered during vulnerability analysis of a hazard. (9)
- (c) Describe the causes of deforestation (6)

SECTION – BThere are **FOUR** questions in this section. Answer any **THREE**.

5. (a) Disaster risk reduction measures should be considered during project design – explain with examples. (5)
- (b) Why is it important to incorporate Risk Sensitive Land use Planning (RSLUP) approach while preparing Dhaka Metropolitan Development Plan? (15)
- (c) Briefly discuss the aspects, that needs to be covered in a post disaster review report. Why the post disaster review is often overlooked? (10+5=15)

PLAN 471

6. (a) Explain the urban flooding scenario of Dhaka with the help of Pressure Release Model. (15)
(b) With a neat diagram show the flood management strategies. (10)
(c) What are the typical measures included in the response phase of disaster management? (10)
7. (a) Briefly discuss the impacts of sea level rise in the coastal areas of Bangladesh. (12)
(b) Elaborate the six thematic areas of Bangladesh Climate Change Strategy and Action Plan, 2009. (18)
(c) Distinguish between the terms "Mitigation" and "Adaptation". (5)
8. (a) Discuss the following environmental management tools for disaster risk reduction and its application in the context of Bangladesh. (15)
(i) Environmental policies and planning
(ii) Environmental impact assessment.
(iii) Institutional arrangement
- (b) Write short notes on the following topics. (4×5=20)
(i) Protection of critical facilities.
(ii) Liquefaction
(iii) Expand - Contract model
(iv) Major challenges of flood control in Bangladesh.
-

Sub : **PLAN 413** (Urban Management and Governance)

Full Marks : 210

Time : 3 Hours

The figures in the margin indicate full marks.

USE SEPARATE SCRIPTS FOR EACH SECTION

SECTION – AThere are **FOUR** questions in this section. Answer any **THREE**.

1. (a) Differentiate between government and governance. (7)
- (b) "Plan making or implementing a plan is not only dependent on expertise, respective agencies, funding etc. It is not even a technical issue alone. In some way or other, success of planning ultimately is related to governance. While good governance can facilitate it, lack of good governance might make bottlenecks". Justify the statement explaining the relation of planning with governance and importance of good governance in this regard by three different examples from land use plan making, transport and water supply aspects. (20)
- (c) How can professional specialization lead to isolation in decision making in absence of good coordination and integration mechanism? Explain with an example related to urban and regional planning. (8)
2. (a) Briefly discuss multilevel governance at sectoral, national and international levels. (7)
- (b) What are the features of good governance? Describe. (20)
- (c) What is meant by vertical coordination and horizontal coordination in governance mechanism? Briefly explain with examples. (8)
3. (a) Why governing cities are becoming difficult and complex day by day? (14)
- (b) Globally, and nationally also, cities are competing with each other. Why? In which areas or aspects? (6)
- (c) Municipalities are the urban local government units in Bangladesh. Does it mean that urban governance approach is followed in municipal decision making? Do you think that if local government units become stronger, urban governance will be more effective? Justify your answer. (5+10)
4. (a) Explain with a diagram the importance and influence of several stakeholders of urban planning and development management in Dhaka. What implication does the difference in importance and influence of stakeholders have on urban livability, social justice and sustainability? (13+7)

PLAN 413

Contd ... Q. No. 4

(b) There are many forms of governance : managerial, corporatist, pro-growth, welfarist, etc. In many cases, there forms overlap. Yet throughout the world particular form of governance, including urban governance, results in particular type of public policies. Explain with examples(s), how public policies vary with these forms of governance. **(15)**

SECTION – B

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

5. (a) Write short notes on the following (any five). **(5×7=35)**
- (i) New approaches to land regularization and land management,
 - (ii) Urban hazards in Bangladesh,
 - (iii) Urban Management Program (UMP),
 - (iv) Participatory Process and Partnership in Urban Planning,
 - (v) Modernist Approaches to Planning,
 - (vi) Spatial Data Infrastructure (SDI),
 - (vii) The rise of Megacities.
6. (a) What are the opportunities and challenges of urbanization? **(17 1/2)**
- (b) What development strategies may be adopted for better urban growth management of the cities of Bangladesh? **(17 1/2)**
7. "Planning can be used as a tactic of marginalization and exclusion where particular groups are denied access to planning services", – how would you critique this statement? **(35)**
8. "Land is an essential ingredient in supporting the role of megacities in national economic and quality of life". Explain this statement with reference to urban management in Dhaka. **(35)**
-