

**PART I (30 MARKS)**  
**ANSWER ALL QUESTIONS**

**Question 1**

Answer briefly each of the following questions:

a) What do you mean by Population Structure?

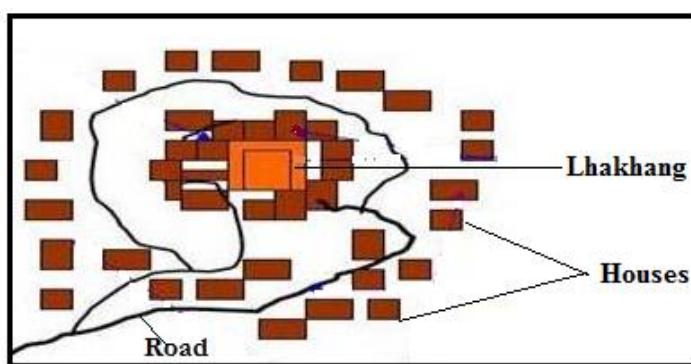
[1]


b) The 1985 Breeding Policy of Bhutan recommended the use of exotic breeds of poultry. Name **TWO** exotic poultry breeds.

[1]


c) Name the type of rural settlement depicted in the diagram below and write **TWO** salient features.

[2]





d) Expressways are considered as the superior highways in Bhutan. Mention **TWO** [2] features of expressways which make them superior to other roads.


e) The preservation of Bhutan's rich biological diversity can be attributed to two [2] factors. List them.


f) Nutrient management methods constitute a very important component of modern farming technology. List **TWO** nutrient management methods adopted by the Bhutanese farmers. [2]

g) Bhutan Post provides many products and services to its customers. Give **FOUR** examples of philately products. [2]



h) A recent survey revealed that with the use of biogas we can now save up to three hours of household chores. Suggest **TWO** ways to encourage the use of biogas as an alternative source of energy in the villages. [2]


i) Why do slums and squatter settlements develop with urbanization? Give **TWO** reasons. [2]


j) Compute the Child Dependency Ratio from the data given below in the table: [2]

Age-Group (in Years)	Percentage of Population
0 - 14	33.1
15 - 64	62.3
65 and above	4.7

k) Dorji, an entrepreneur, prefers to establish his cement factory in Gomtu, Samtse rather than in Gasa. Considering the factors that affect the localization of industries, give **FOUR** reasons favoring his preference.

[2]

1) Retirement of a large number of civil servants from the government service will have negative impacts if there is no proper succession planning. With reference to this, state **ONE** significance of succession planning.

[1]

m) A carefully prepared Master Plan for the development of different sectors of economy has manyfold advantages. Write down **ONE** advantage of planned development as against unplanned development. [1]

n) Pema is a resident of Thimphu. She prefers LUM over ordinary mail services provided by Bhutan Post for sending and receiving important documents. Justify her preference with **TWO** reasons. [2]

o) Tourism in Bhutan is distinctly urban in character rather than spread across the country. Do you agree? Justify your answer with **TWO** reasons. [2]

p) Improving public transport system is the only effective solution to the growing traffic congestion in Thimphu. Justify with **TWO** reasons how can an efficient public transport system help in solving traffic congestion problem? [2]

q) The Government is in the process of finalizing and endorsing Bhutan's Cultural Policy document that encompasses all aspects of our cultural heritage. Propose **TWO** recommendations for the preservation of our non-material cultural heritage. [2]

**PART II (70 MARKS)**  
**ANSWER ANY SEVEN QUESTIONS**

## Question 2

a) What do you mean by density of population?

b) What are the different ways of expressing density of population?

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c) One of the important responsibilities of the National Environment Commission of Bhutan is the formulation of national environment strategy. Mention **TWO** other responsibilities entrusted to the Commission. [2]

d) The Royal Education Council has already initiated textbook-less curriculum for some subjects. This demands the use of internet facilities by the students. Write **THREE** advantages and **THREE** disadvantages of making internet facility accessible to students in the schools. [3]


e) The Royal Bhutan Helicopter Services can play a major role in providing transport services in our country. Do you agree? Justify your stand with **THREE** arguments. [3]

**Question 3**

a) Frequency of mail delivery by Bhutan Post depends upon a number of factors.  
Write any **TWO** factors affecting the frequency of mail delivery in Bhutan.

[2]


b) Roads falling within the designated urban boundary of a municipality are categorized into four types. Write their names.

[2]


c) Bhutan exported eggs worth more than Nu.0.17 million in its first consignment to Kolkata, India. Mention **THREE** ways to increase egg production so that we can export more. [3]

d) Even though there was a steady expansion in the number of industries after 1961, the industrial development took place in a relatively slow pace in Bhutan. Give **THREE** reasons for it. [3]

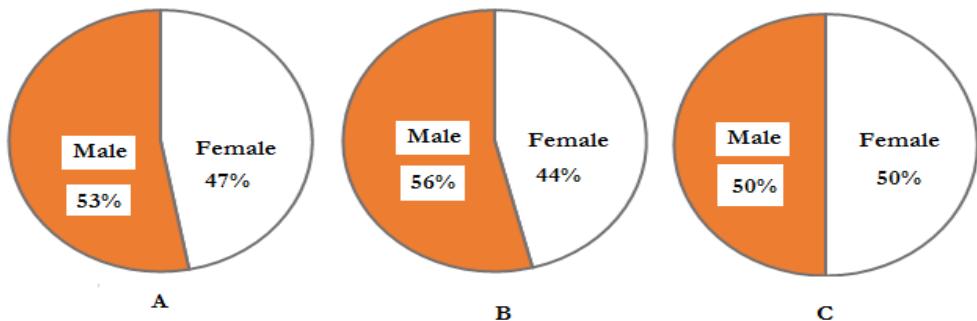

## Question 4

a) National Parks and Wildlife Reserves in Bhutan are interconnected by paths which allow free movement of wildlife. What are such paths called? [1]

b) Sustainability of private newspapers in Bhutan is challenging. Suggest **TWO** ways to make this business sustainable. [2]


c) It has become a matter of urgency for Bhutan to make appropriate investments in alternative renewable energy other than hydroelectricity. Do you agree? Justify your answer with **THREE** reasons. [3]

d) Study the pie diagrams showing the sex composition of countries A, B and C given below and answer the questions that follow:



i. Which country has the best sex ratio? Why do you think so? [2]


ii. Infer the sex ratio of country 'C'. [2]


## Question 5

a) What do you mean by density of road? Write a formula to calculate it.

[2]

b) One of the negative impacts of migration on the place of destination is over population. Write **TWO** negative impacts of migration on the place of origin.

[2]

c) Glacial lake outburst flood is one of the examples of impact of climate change. [3]  
Give **THREE** other examples to show that climate change is affecting Bhutan.

d) Qualitative and quantitative aspects of human resources are vital for all round human development. Write **THREE** recommendations to enhance the quality of human resource in Bhutan. [3]


## Question 6

a) State any **FOUR** factors affecting the location and growth of urban centres in Bhutan. [2]

b) One of the factors that contribute to high cost of international air travel is the cost involved in obtaining flying and landing rights. In Bhutan even domestic air transport is relatively expensive. Why? Give **TWO** reasons. [2]

c) With the help of the information given below, compute and compare the population growth rate during the periods 2010-2011 and 2016-2017. [3]

Table: Projected Population of Bhutan

Year	Population
2010	695,822
2011	708,265
2016	768,577
2017	779,666


d) With the advent of smart phones, mobile phone communication is considered as the best means of communication. Do you agree? Give **THREE** justifications in support of your answer. [3]

**Question 7**

a) Nuclear energy can be obtained from radioactive minerals. Write **ONE** problem [1] associated with using nuclear energy.


b) Banking and non-banking financial institutions are essential to promote the [2] growth of the Bhutanese economy. Write **ONE** similarity and **ONE** difference between banking and non-banking financial institutions.


c) How can television promote modern farming in Bhutan? Write **THREE** ways. [3]


d) Poaching and illegal wildlife trade poses a threat against wildlife conservation in Bhutan. As a consultant of World Wildlife Fund (WWF), recommend **FOUR** strategies to curb poaching and illegal wildlife trade. [4]

## Question 8

a) Mention any **TWO** advantages of using technology in agriculture.

[2]

b) Environment and wildlife conservation is increasingly becoming difficult due to loss of forests for various developmental activities. Do you agree? Support your stand with **TWO** justifications.

[2]


c) As per RSTA records, from July 2015 to June 2016, eighty-six people died due to motor vehicle accidents. Write **THREE** ways to make road transport system safer in Bhutan. [3]

d) Tabulate **THREE** differences between agglomerated settlement and isolated settlement. [3]

### Question 9

a) Write any **TWO** features of Druk Path Trek. [2]


b) Urban sprawl is a serious problem resulting from urbanization. Write **FOUR** measures to check urban sprawl. [4]

c) One of the initiatives taken by the government for nature conservation is to make Environmental Impact Assessment (EIA) mandatory before carrying out any developmental activity in Bhutan. In relation to this, write any **FOUR** advantages of EIA.

[4]

**Question 10**

a) Describe mineral based industry. Name any **TWO** mineral based industries in Bhutan.

[2]


b) The Agriculture Ministry has been installing electric fencing to combat human-wildlife conflict. Write **TWO** benefits of this noble initiative to the farmers of Bhutan.

[2]


c) Despite a small population in Bhutan, an increased rate of population growth is an environmental concern for the Royal Government of Bhutan. Why? Give **TWO** reasons. [2]


d) Urbanization is a curse rather than a boon in Bhutan. Do you agree? Justify your stand with **FOUR** arguments. [4]



### Question 11

In the outline map of Bhutan provided, **mark** and **name** the following as instructed:

**[10]**

- a) ‘CBR’ over the Dzongkhag with highest Crude Birth Rate as per the PHCB, 2017.
- b) ‘ET’ in the western region that has developed into an educational town.
- c) Shade and name the Dzongkhag where rice production is maximum as per Bhutan RNR Statistics, 2015.
- d) Shade and write ‘WL’ over the Dzongkhag where wet land is minimum.
- e) ‘SMP’ over the place where the Sunkosh Multi- Purpose Project is proposed to be located.
- f) ‘DCCL’ over the place where Dungsam Cement Corporation Limited is located.
- g) ‘BDBL’ over a place where the head office of Bhutan Development Bank Ltd is located.
- h) Mark and name a place where the first bank in the country was established.
- i) ‘LPD’ over the dzongkhag with the least population as per PHCB, 2017.
- j) Shade and write ‘PWS’ over the region where Phibsoo Wildlife Sanctuary is located.

