

**ROYAL CIVIL SERVICE COMMISSION  
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2018  
EXAMINATION CATEGORY: TECHNICAL**

**PAPER III: SUBJECT SPECIALISATION PAPER FOR URBAN PLANNING**

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<b>Date</b>	: 7 October 2018
<b>Total Marks</b>	: 100
<b>Writing Time</b>	: 150 minutes (2.5 hours)
<b>Reading Time</b>	: 15 Minutes (prior to writing time)

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**GENERAL INSTRUCTIONS:**

1. Write your Registration Number clearly and correctly on the Answer Booklet.
2. The first 15 minutes is being provided to check the number of pages of Question Paper, printing errors, clarify doubts and to read the instructions. You are NOT permitted to write during this time.
3. This paper consists of **TWO SECTIONS**, namely SECTION A & SECTION B:
  - **SECTION A** has two parts: Part I - 30 Multiple Choice Questions  
Part II - 4 Short Answer QuestionsAll questions under SECTION A are COMPULSORY.
  - **SECTION B** consists of two Case Studies. Choose only **ONE** case study and answer the questions of your choice.
4. All answers should be written on the Answer Booklet provided to you. Candidates are not allowed to write anything on the question paper. If required, ask for additional Answer Booklet.
5. All answers should be written with correct numbering of Section, Part and Question Number in the Answer Booklet provided to you. Note that any answer written without indicating the correct Section, Part and Question Number will NOT be evaluated and no marks will be awarded.
6. Begin each Section and Part in a fresh page of the Answer Booklet.
7. You are not permitted to tear off any sheet(s) of the Answer Booklet as well as the Question Paper.
8. Use of any other paper including paper for rough work is not permitted.
9. **You are required to hand over the Answer Booklet to the Invigilator before leaving the examination hall.**
10. This paper has **7 printed pages**, including this instruction page.

**GOOD LUCK**

**SECTION A**

**PART I: Multiple Choice Questions (30 marks)**

**Choose the correct answer and write down the letter of your chosen answer in the Answer Booklet against the question number e.g. 31 (d). Each question carries ONE mark. Any double writing, smudgy answers or writing more than one choice shall not be evaluated.**

1. Comprehensive long-range plan intended to guide growth and development of a city is:
  - a) Master Plan
  - b) Structure Plan
  - c) Five Year Plan
  - d) Detailed Development Plan
  
2. Ekistics is
  - a) the study of Human Relationship.
  - b) the study of Human Behaviour.
  - c) the study of Science of Human Settlements.
  - d) the study of Science of Sound.
  
3. Community Participation is often mistaken to mean
  - a) involvement of the target population.
  - b) cooperation from the people.
  - c) contribution by the intended beneficiaries.
  - d) use of Mass Media of Communication.
  
4. Thimphu Structure Plan 2002-2017 was prepared by
  - a) Paul Rosenan
  - b) Christopher Charles Benninger
  - c) Antoni Rovira I Trias
  - d) Jaime Lerner
  
5. Land Act of Bhutan 2007 was enacted on
  - a) 15<sup>th</sup> December 2007
  - b) 1<sup>st</sup> January 2007
  - c) 1<sup>st</sup> January 2008
  - d) 1<sup>st</sup> July 2007
  
6. Ekistics is the term coined by
  - a) Le Corbusier
  - b) Constantine Doxiadis
  - c) Lewis Mumford
  - d) Lucio Costa

7. The Science of Human Settlements was brought out by
- Thomas Paulose
  - Patrick Geddes
  - Le Corbusier
  - Doxiadis
8. \_\_\_\_\_ has suggested six styles of town development and classified the town in social order than physical terms like Eopolis to Necropolis.
- Lewis Mumford
  - Patrick Geddes
  - Griffith Taylor
  - Christopher Alexander
9. The 'Finger Plan' was adopted for the extension of the city of
- Copenhagen
  - New Delhi
  - Moscow
  - Brasilia
10. Which of the following books Ebenezer Howard published in 1898?
- Garden Cities of To-morrow
  - To-morrow: A Peaceful Path to Real Reform
  - Garden Suburb of London
  - Model Garden Cities of To-morrow
11. Area of a Neighbourhood according to C. Perry will be around
- 860 acres
  - 660 acres
  - 360 acres
  - 160 acres
12. Mohenjodaro represents
- Yellow River Valley Civilization
  - Nile Valley Civilization
  - Indus Valley Civilization
  - Tigris/Euphrates River Valley Civilization
13. Normal "Plan period" of a city's Master Plan is:
- 100 years
  - 50 years
  - 20 years
  - 5-10 years

14. Size of a Neighbourhood revolves around
- population required to support elementary school.
  - number of adjacent industries.
  - available agricultural land area.
  - availability of open spaces.
15. Chauncy Harris and Edward Ullman created economical model in 1945 known as \_\_\_\_\_
- Classical Model
  - Linear Model
  - Multiple Nuclei Model
  - Sector Model
16. German Geographer Planner conceptualized which one of the theories given below in 1933?
- Sector Theory
  - Multiple Nuclei Theory
  - Neighbourhood Theory
  - Central Place Theory
17. "Urbanism is a special concept which inherits within itself all the characters connected with Urbanization and the urban way of life". This concept was given by
- Max Weber
  - Lewis Mumford
  - Louis Wirth
  - Manvel Castells
18. Who was the first planner who developed the Gridiron?
- Hippodamus of Rome
  - Hippodamus of Greek
  - Hippodamus of Lutos
  - Hippodamus of Miletus
19. Phrase used to characterize development that meets the needs of the present generation without compromising the needs of the future is
- Advocacy Planning
  - Agricultural Surplus
  - Sustainable Development
  - Sustainable Land Use Planning
20. A 20<sup>th</sup> century problem emanating from rapid urbanization of areas surrounding a city which eats up the remaining adjacent rural open spaces is
- Advocacy Planning
  - Urban Sprawl
  - Sustainable Land Use Planning
  - Greenbelt

21. A type of planning which emphasizes that the proper role of the planner is not to serve the general public interest but rather to serve the interests of the least fortunate or least well represented groups in society is
- Social Planning
  - Strategic Planning
  - Sectoral Planning
  - Advocacy Planning
22. Name of the survey to determine the amount of by-passable traffic is
- Volume Count Survey
  - Moving-Observer Survey
  - Origin-Destination Survey
  - Frequency patrol survey
23. The use of different map symbols to represent spatial features is called
- Cartography
  - Symbolization
  - Spectroscopy
  - Photogrammetry
24. The person assigned by the performing organization to achieve the project objectives is called
- Functional Manager.
  - Operation Manager
  - Project Manager
  - Program Manager
25. Floor Space Index (FSI) which is also known as Floor Area Ratio is
- the ratio of Plinth area to Plot area
  - the ratio of Plot area to plinth area
  - the ratio of Total floor area to total plot area
  - the ratio of Total Plot area to total floor area
26. The Kingdom of Bhutan's Compensation Rate for Land, Structures, Cash Crops and Fruits – 2017 was prepared by
- National Land Commission Secretariat
  - Ministry of Works and Human Settlement
  - Property Assessment and Valuation Agency
  - Ministry of Economic Affairs
27. Most of the Local Area Plans in Bhutan are prepared by using \_\_\_\_\_ technique over other planning alternative tools
- Guided Land Development
  - Land Pooling
  - Land Acquisition
  - Cash Payment in-lieu of Land Contribution

28. The total urban population of Bhutan as per the Population and Housing Census of 2017 was
- a) 30.8%
  - b) 37.8%
  - c) 40%
  - d) 31.5%
29. The apex Ministry to deal with urban human settlement issues in Bhutan is
- a) Ministry of Home & Cultural Affairs
  - b) Ministry of Works & Human Settlement
  - c) Ministry of Labour and Human Resource
  - d) Ministry of Economic Affairs
30. What is the alternative of GPS developed by Russia?
- a) GLONASS
  - b) Gagan
  - c) Galileo
  - d) Leica

**PART – II : Short Answer Questions (20 marks)**

**This part has 4 Short Answer Questions. Answer ALL the questions. Each question carries 5 marks.**

**Question 1**

- a) What is zoning and why it is important? Please explain with examples (2 marks)
- b) How is zoning different from land use? (1 mark)
- c) What is a Development Control Regulation (DCR) and why is it required? (1 mark)
- d) What is the difference between the Bhutan Building Rules and DCR? (1 mark)

**Question 2**

Explain what is an Intelligent Transport System (ITS)? Discuss the need for such systems in the context of Bhutan's urban centres. (5 marks)

**Question 3**

Thimphu Structure Plan 2002-2027 was prepared using principles of intelligent urbanism. Define Principles of Intelligent Urbanism and give four principles. (5 marks)

**Question 4**

According to the Local Government Act 2009 of Bhutan, what are the criteria for establishment of Class A Thromde or Class B Thromde in the country. (5 marks)

**SECTION B: Case Study (50 marks)**

**Choose either Case I or Case II from this Section. Each Case carries 50 marks. Mark for each sub-question is indicated in the brackets.**

**Case I**

1. "Urban Planning" is considered to be a multidisciplinary field. Discuss in detail the different professionals that should be part of an urban planning exercise, explaining the ways in which they can contribute in the process. (20 marks)
2. What is a Master Plan and why is it required or what are its objectives? Briefly outline the methodology used in the preparation of Master Plan through flowcharts/sketches. (30 marks)

**Case II**

New Urbanism is a planning and development approach based on the principles developed to offer alternatives to the sprawling, single-use, low-density patterns typical of post-world war II development, which have been shown to inflict negative economic, health, and environmental impacts on communities. It is the most important planning movement in this century and is about creating a better future for all of us.

1. Briefly explain the principles of New Urbanism. (20 marks)
2. Relate the principles to an existing urban settlement in Bhutan (15 marks)
3. Mention benefits of New Urbanism (15 marks)

**TASHI DELEK**