



Khulna University of Engineering and Technology

Department of Architecture

B.Arch 1<sup>st</sup> Year 2<sup>nd</sup> Term Regular Examination, 2017

Course No : Arch 1255

Course Title : Climate and Built Environment

Full Marks 210

Time 3 Hours

N.B i) Answer any Three questions from each section in separate script.

ii) Figure in the right margin indicate Full Marks.

**Section A**

- |   |  |     |
|---|--|-----|
| 1 | a. Mention the attributes of Hot-dry and Warm-Humid climate.   | 20  |
|   | b. In how many ways the Earth-Sun relationship affects the amount of radiation received on the Earth's surface? Discuss with illustrations.                      | 15  |
| 2 | a. What is site climate? Elaborate the factors of site climate.  | 15  |
|   | b. What do you understand by urban climate? Discuss the factors causing deviations of the urban climate from the regional macro-climate.                         | 20  |
| 3 | a. Discuss various subjective factors by which our thermal preferences are influenced.   | 15  |
|   | b. Discuss thermal comfort. How does the human body produce and release heat to the environment.   | 20  |
| 4 | a. Write Short Notes on,   | 5X3 |
|   | i. Effective Temperature (ET)  | =15 |
|   | ii. Corrected Effective Temperature (CET)  |     |
|   | iii. Mean Radiant Temperature (MRT)  |     |
|   | b. Distinguish between Specific Heat Capacity and Thermal Capacity of building material. What do you understand by sol-air temperature? Discuss its application. | 20  |

**Section B**

- |   |  |     |
|---|--|-----|
| 5 | a. What is periodic heat flow? Discuss time lag and decrement factor.  | 15  |
|   | b. What do you understand by passive means of thermal control? Do you think Internal blinds and curtains are effective means of solar control? Give reasons. | 20  |
| 6 | a. Discuss various types of external shading devices for solar control.  | 20  |
|   | b. Write short notes on:   | 3x5 |
|   | i. The solar altitude angle  | =15 |
|   | ii. Horizontal shadow angle.   |     |
|   | iii. Heat absorbing glasses  |     |
| 7 | a. Discuss air flow around buildings.  | 15  |
|   | b. Discuss 'Stack effect' with illustrations. What are the functions of natural ventilation?   | 20  |

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- a. Discuss the provision of roofs in Hot-dry climates.
- b. What are the major considerations for designing shelter in warm –humid climates? Discuss in brief.



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Course No : Arch 1233 Course Title : Art History

Full Marks 210

Time 3 Hours

N.B i) Answer any three questions from each section in separate script.

ii) Figure in the right margin indicate Full Marks.

**Section A**

- |   |   |     |
|---|---|-----|
| 1 | a. What are the different Branches of art?                | 10  |
|   | b. Discuss in details the different values of Art.        | 25  |
| 2 | a. Write briefly about High Renaissance.                  | 10  |
|   | b. Critically analyse and describe Da Vinci's work.       | 25  |
| 3 | a. Discuss Raphael's 'Madonna of the Meadow'.             | 10  |
|   | b. Critically elucidate and evaluate Michelangelo's work. | 25  |
| 4 | Write Short Notes on,                                     | 7X5 |
|   | i. Masaccio's -The Holy Trinity                           | =35 |
|   | ii. Donatello's -Gattamelata                              |     |
|   | iii. The Monalisa   |     |
|   | iv. Louis David - The oath of Horatii                     |     |
|   | v. The Declaration of Independence by John Trumbell       |     |

**Section B**

- |   |   |     |
|---|---|-----|
| 1 | a. What are the characteristics of 19 <sup>th</sup> century's Impressionist work? | 10  |
|   | b. Elucidate Edouard Manet's 'Bar at Folies- Bergere.'                            | 25  |
| 2 | a. What are the two streams of Post Impressionism                                 | 10  |
|   | b. Critically evaluate Vincent Van Gogh's important works.                        | 25  |
| 3 | a. Discuss Naksha and Terracotta.   | 10  |
|   | b. Illustrate the categories of Folk Art in a chart.                              | 25  |
| 4 | Write short notes   | 7x5 |
|   | a. ZainulAbedin   | =35 |
|   | b. Qamrul Hassan  |     |
|   | c. Picasso-The old Guitarist  |     |
|   | d. Fauvism  |     |
|   | e. Matisse, Dance-1   |     |



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Department of Architecture

B.Arch 1<sup>st</sup> Year 2<sup>nd</sup> Term Regular Examination, 2017

Course no: Arch-1265 Course title: Building and Finish Material

Full Marks: 210

Time: 3 Hours

N.B i) Answer any three questions from each section in separate script.

ii) Figures in the right margin indicate full marks.

**Section-A**

1. a) Write down the general principles to be observed in brick masonry construction. 20
- b) Write short notes on: (any 03) 15
- i) Strecher Bond
  - ii) English Bond
  - iii) Herring bone Bond
  - iv) Zig-Zag Bond
  - v) Diagonal Bond
2. a) Briefly discuss the properties of good building stone. 15
- b) Write short notes on: (any 04) 20
- i) Granite
  - ii) Sand stone
  - iii) Marble
  - iv) Lime stone
  - v) Slate
3. a) Briefly discuss the different constituents of concrete 20
- b) State two (02) different types of special cement. 10
- c) Write down the characteristics of sand. 05
4. a) Illustrate Macro structure of an Exogenous tree 10
- b) Briefly discuss about the defects in Timber due to natural forces. 20
- c) Describe the five (05) characteristics of good Timber. 05

**Section-B**

5. a) Briefly discuss about different types of glasses. 15
- b) State Tempered glass. State its properties and application. 20

6. a) Write down characteristics of ideal painting 05
- b) Outline the basic ingredients of paint. Briefly discuss any two ingredients. 15
- c) Write short note on: (any 03) 15
- i) Blistering
  - ii) Blooming
  - iii) Brush Mark
  - iv) Cissing
7. a) Outline different varieties of industrial timber. Briefly discuss plywood and chip board. 15
- b) What are the purposes of varnishing? 05
- c) What short note on spray form installation. 15
8. a) What is ACP? Write down the features of ACP 15
- b) Write short notes on Homogeneous tiles and Heterogeneous tiles. 10
- c) Discuss about two different types of tiles. 10



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Course no: HUM-1225 Course title: Basics of Sociology

Full Marks: 210

Time: 3 Hours

- N.B i) Answer any three questions from each section in separate script.  
ii) Figures in the right margin indicate full marks.

**Section-A**

1. a) What is sociology and why do you study it? 10  
b) Critically describe the impact of studying sociology for the students of architecture. 15  
c) What is society and what are the basic characteristics of it? 10
2. a) What is community? Explain elements of community with example from your own community. 15  
b) What do you mean by society? Discuss evolutionary phases of society with example. 20
3. a) What is built environment? Consequences of built-environment on health and neighbourhood relationship. 15  
b) Critically explain relation between architecture and built-environment. 10  
c) How can you distinguish between buildings belonging to the grand design tradition and those of the folk tradition. 10
4. a) What is culture? Explain careers of culture with example form your own society. 15  
b) What do you mean by cultural lag? Explain the cultural lag in Bangladesh. 10  
c) What is house form? Describe determining factors of house form. 10

**Section-B**

5. a) What is the relationship between the individual and his or her designed environment. 10  
b) What is social structure and what are the elements of it? 10  
c) Why are human societies stratified? 15
6. a) What is religion? Explain relation between architecture and religion. 10  
b) Explain urbanism as a way of life. 10  
c) Discuss the empirical consequences of urban life. 15

7. a) Explain concentric zone model. 10
- b) How will population growth affect global ecology? 10
- c) What is deviant behaviour? Explain the relationship between social control and deviant behaviour. 15
8. a) What is Gender relationship? Differentiate between WID and GAD? 15
- b) Explain Globalization as a process of interaction and integration. 10
- c) What is the sociological explanation of space and society? 10