

L-2/T-2/ARCH

Date:09/01/2021

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA

L-2/T-2, B. ARCH Examinations (Term: January-2020)

Sub: **ARCH 235** (Architecture of Modern Period)

Full Marks: 120

Time: 2 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** from them.

(Special Instruction: **Open Book Examination**)

- 1) What were the three waves of revolution experienced by the art scene of the nineteenth century France, describe briefly according to Gombrich with example. 20
- 2) What are the core concepts of Prairie Houses as developed by Frank Lloyd Wright? Describe Robie House to elucidate the idea. 20
- 3) Describe Barcelona Pavilion or Farnsworth House to explain - "Less is More", according to Mies Van Der Rohe. 20
- 4) Write about Bauhaus and its significance in the art and architecture of the Twentieth Century. 20

SECTION-B

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

(Special Instruction: **Open Book Examination**)

- 1) Write about the significance of architect **Muzharul Islam**'s version of **modernism** in architecture, with relevant examples. 20
- 2) Describe Crystal Palace as one of the most significant buildings in the history of Architecture. 20
- 3) Write briefly about the **French Revolution** and **Industrial Revolution** to establish them as the main catalysts for the evolution of **Modernism** and consequently **Modern Architecture**. 20
- 4) What were the **Five Points of Architecture** according to **Le Corbusier**, trace them in any of his residential projects designed before world war II. 20

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L-2/T-2, BARCH Examinations (Term: January-2020)

Sub: **ARCH 243**, (Art and Architecture III)

Full Marks: 120

Time: 2 Hours

The figures in the margin indicate full marks

USE SEPARATE SCRIPTS FOR EACH SECTION

SECTION-A (60 Marks)

There are **FOUR** questions in this section. Answer any **THREE**. Use sketches if necessary.

All questions are of equal value.

(Special Instruction: **Open Book Examination**)

1. Compare and distinguish between the floor plans, sections and principal architectural components which form the style of Khajurahs and Orissan temples. (20)
2. 'The Temple transformed into a fort, the fort evolved into a City'-explain it with reference to the development and characteristics of different South Indian Temples of the Nayaks. (20)
3. How the concepts and features of the South Indian Hindu Temple Architecture emerged during the Chalukyan overlords? - discuss with reference to the Lad Khan and the Durga Temple at Aihole. (20)
4. Write short notes on: (20)
 - a) Transformation of Vastupurshamandala into architectural plan
 - b) Evolution of Shikhara as a prominent feature of Indo-Aryan temple style

SECTION-B (60 Marks)

There are **FOUR** questions in this section. Answer **Q.5** and any **Two** from the rest.

(Special Instruction: **Open Book Examination**)

5. Write short notes on any **TWO** of the followings: (10 x 2 =20)
 - i) Frescos of Ajanta and Ellora
 - ii) Great University of Nalanda
 - iii) Ashokan Pillar
6. Elaborate the architectural characteristics of the Great Stupa at Sanchi in terms of its reconstruction and expansion with necessary sketches. (20)

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7. Explain how the rock-cut Chaitya Halls were executed? Describe the Chaitya halls of Ajanta, Kondore and Konheri with illustrations. (20)
 8. Discuss the architectural characteristics of the Mauryan city of Pataliputra as the finest example of Vedic city. (20)

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA

L-2/T-2, B. Arch. Examinations (Term: January-2020)

Sub: **ARCH 255** (Architectural Acoustics)

Full Marks: 120

Time: 2 Hours

The figures in the margin indicate full marks

USE SEPARATE SCRIPTS FOR EACH SECTION

Special Instruction: **Open Book** Examination

SECTION- A (60 Marks)

There are FIVE questions in this Section. Answer any FOUR questions.

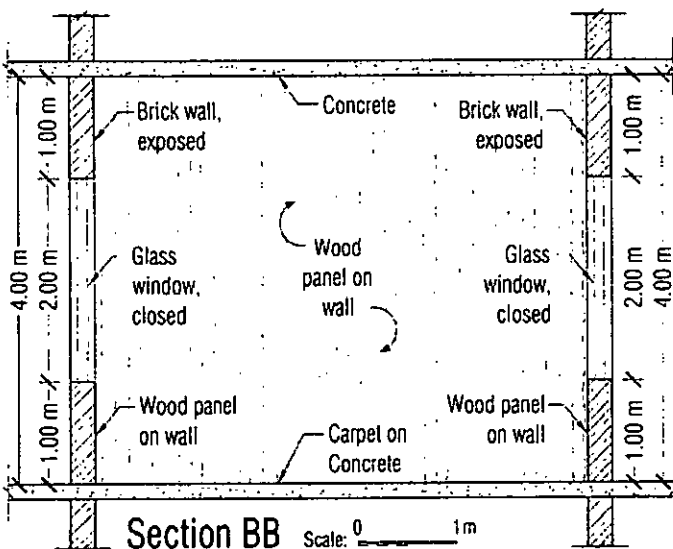
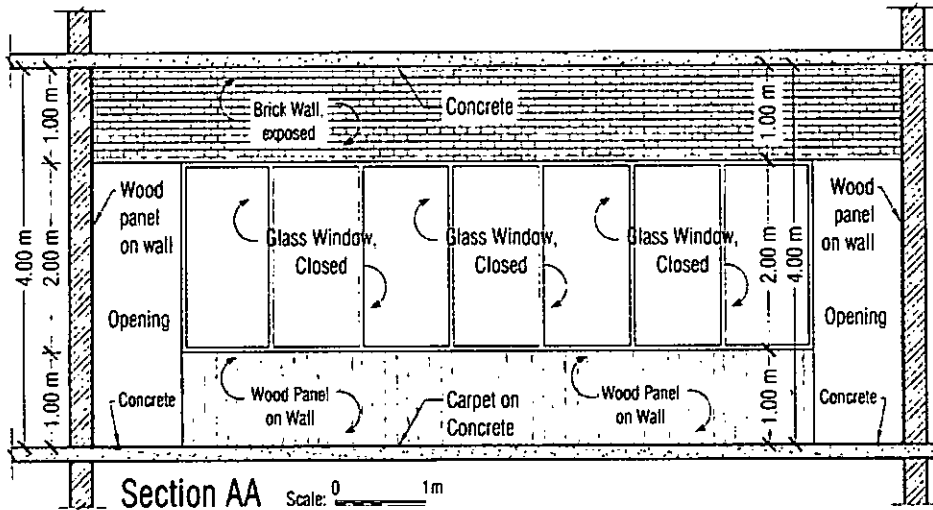
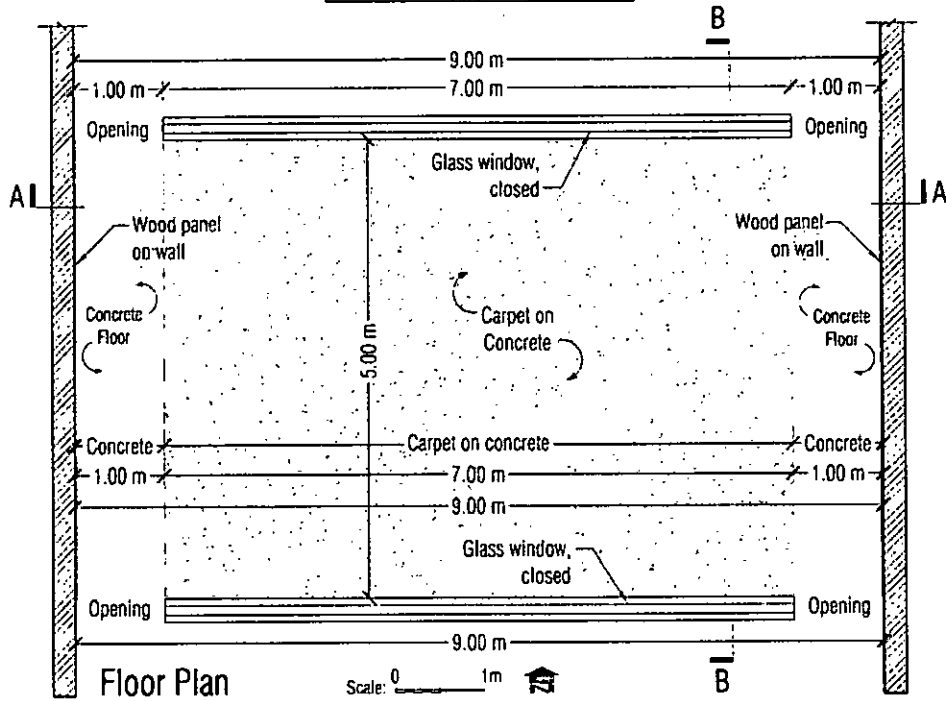
1. (a) Calculate the Reverberation Time (RT) at 1 kHz for the room shown in Fig. for Q 1 (a) (13)
- (b) Make comments on suitability of the room for speech in Bangla. (2)
2. What are the general requirements for acoustical design? (15)
3. Describe with figures how noise transmission can be controlled in following conditions. (5x3=15)
 - (a) From room to room through air-conditioning ducts.
 - (b) From floor to floor through floor slabs due to mechanical equipments.
 - (c) From outdoor to indoor through window as reflected by sunshade.
4. In schematic drawings, show examples of 'poor' and 'good' acoustical design options for following cases. (5x3=15)
 - (a) A space with circular plan.
 - (b) A curved ceiling of an auditorium.
 - (c) A balcony section in an auditorium.
5. Explain the statement: "Acoustical performance of a space should not be assumed as a post-construction assignment, rather it should be ensured in the design phase." (15)

SECTION- B (60 Marks)

There are FIVE questions in this Section. Answer any FOUR questions.

6. (a) Briefly describe works of any three contributors in the early development of acoustics. (6)
- (b) Mention any six properties of sound. (6)
- (c) Define acoustics. (3)
7. Write short notes on any three of the following. (5x3=15)
 - (a) Sound Pressure Level
 - (b) Frequency of Sound
 - (c) Reverberation Time
 - (d) Absorption Coefficient
8. Explain with schematic drawings, how sound behaves in an enclosed space for the following cases. (5x3=15)
 - (a) Reflection
 - (b) Refraction
 - (c) Diffusion
9. Describe the following singular phenomena with necessary examples and sketches. (5x3=15)
 - (a) Flutter Echo
 - (b) Sound focus and dead spot
 - (c) Whispering Gallery
10. Narrate with figures, how air-borne and structure-borne noise propagate in a building. (15)

Fig. for Q. 1 (a)



Absorption Coefficient of Materials

Materials	Absorption Coefficient		
	250 Hz	500 Hz	1 kHz
1 Concrete	0.01	0.02	0.02
2 Carpet on concrete	0.06	0.14	0.37
3 Glass	0.06	0.04	0.03
4 Wood panel on wall	0.22	0.17	0.09
5 Brick, exposed	0.03	0.03	0.04

Note: Ignore absorption due to the volume of air in the room

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Date:25/01/2021

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA

L-2/T-2, B. Arch Examinations (Term: January-2020)

Sub: Arch 605, (Building Technology)

Full Marks: 120

Time: 2 Hours

The figures in the margin indicate full marks

USE SEPARATE SCRIPTS FOR EACH SECTION

SECTION-A (60 Marks)

There are five questions in this section. Answer any four of these.
(Special Instruction: Close Book Examination)

1. Write short notes. (Any Two) (15)
 - a. Space Frame.
 - b. Dome.
 - c. Mannesmann connector.
2. Why and how a shell made by paper can support a certain load? How it can support maximum load? Explain with neat sketches. (15)
3. How does a Folded Plate work? Explain with neat sketches. (15)
4. What are the types of Stone Masonry? Discuss any two. (15)
5. What are the use of metal in contemporary building technology? (15)

SECTION-B

There are FIVE questions in this section. Answer any FOUR of them.

6. Describe the following building materials related to construction work (Any Three). (15)
 - a) Vulcanization of rubber
 - b) Sustainability in construction
 - c) Aims of Modular Co-ordination
 - d) Adobe construction system
7. What is Indigenous Material in construction industry? Why is it important? (15)
8. Describe Module, Multi-module and Planning module? (15)
9. What is Modular Co-ordination? Why is it needed? (15)
10. What are the advantages and disadvantages of prefabrication? (15)

L-2/T-2 B.Arch Examinations- January 2020

Sub: **HUM 231** (Philosophy)

Full Marks: 120

Time 2 Hours

The Figures in the margin indicate full marks

USE SEPARATE SCRIPTS FOR EACH SECTION

There are 02 page(s) in this question paper.

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

1. (a) Do you think that philosophers are atheists? Justify your position. (5)
(b) Discuss 'need of adjustment' and 'deficiencies of other world-views' as factors related to the origin of philosophy. (15)
2. (a) What is the philosophy of religion? How is it different from theology? (5)
(b) Discuss metaphysics, axiology and ethics as scope of philosophy. (15)
3. (a) Define science from broader and narrower perspectives. (5)
(b) "The relation between philosophy and science is not contradictory-rather complementary with each other." Explain and evaluate this statement. (15)
4. (a) Explain with examples, the different factors of authoritarianism. (10)
(b) Discuss the role of authoritarianism in our everyday life. (10)

SECTION - B

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

5. (a) Explain with examples the distinction between formal truth and material truth. (6)
(b) Explain and evaluate coherence and correspondence theories of truth. (14)
6. (a) How does Lock refute innate ideas introduced by Descartes? (6)
(b) Discuss the fundamental principles of classical empiricism. (14)
7. (a) What is value? How does it differ from fact? (6)
(b) Show that values are both subjective and objective. (14)
8. (a) Is there any relation between body and mind? Justify your position. (6)
(b) Critically discuss interactionism and parallelism as theories regarding the relation between body and mind. (14)