

ANJUMAN-I-ISLAM'S

**AKTC KALSEKAR TECHNICAL CAMPUS**

INNOVATIVE TEACHING · EXUBERANT LEARNING

School of Architecture

School of Engineering & Technology

School of Pharmacy

*Knowledge Resource & Relay Centre (KRRC)*

AIKTC/KRRC/SoA/ACKN/QUES/ 2022-23 /

Date: 25/01/23

School: SoA-CBSGS

Branch: SoA

SEM: II

To,  
Exam Controller,  
AIKTC, New Panvel.

Dear Sir/Madam,

Received with thanks the following **Semester/Periodic** question papers from your exam cell:

Sr. No.	Subject Name	Subject Code	Format		No. of Copies
			SC	HC	
1	Architectural Building Construction & Materials II			✓	
2	Theory & Design of Structures			✓	
3	Humanities			✓	
4	Environmental Studies			-	

Note: SC – Softcopy, HC - Hardcopy

(Shaheen Ansari)  
Librarian, AIKTC



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Approved by : All India Council for Technical Education, Council of Architecture, Pharmacy Council of India New Delhi,  
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- SCHOOL OF ENGINEERING & TECHNOLOGY
- SCHOOL OF PHARMACY
- SCHOOL OF ARCHITECTURE

Subject - Architectural Building Construction and Materials II

Max Marks - 70

Duration - 3hrs.

Sem - II

AKTC.

Date - 13/11/2022

Read questions carefully and write down with neat drawn sketches.

Proper sketches will carry more weightage of marks.

Answer according to the marks allotted.

Attempt any 3 from Q.2 to Q.7

Attempt any 1 from Q.8 to Q.9

Q.1 & Q.10 is compulsory

Q.1 Draw a course plan and cross section of a typical Bay window of size 3000mm length along with suggesting appropriate lintel type, sill type and the brick course details. Wall thickness is 1 ½ brick thick. (15 marks)

Draw/draft Odd and Even Course Plans of 1 BRICK THICK in L JUNCTION of English Bond along with elevation (10 marks)

(25marks)

Q.2 Draw a sketch of a typical segmental Arch

Q.3. List down the construction process for building a typical Arch

(5marks)

Q.4 Draw a sketch of a typical Paneled Door?

(5marks)

Q.5 List down the construction process for building a typical Paneled Door

(5marks)

Q.6 Sketch different types of closure & bats

(5marks)

Q.7 Describe briefly the process of brick manufacturing.

(5marks)

Q.8 Sketch the odd and even course of Flemish bond 1 ½ brick thick for a T junction

(5marks)

Q.9 Design a Jaali wall of 1 brick thick

(10 marks)

(10 marks)

Q.10 MCQ type questions:

A. What are the dimensions of a standard brick?

- a. 230mm x 115mm x 75mm
- b. 190mm x 110mm x 70mm
- c. 300mm x 150mm x 75mm
- d. 115mm x 90mm x 45mm

B. An arch is mainly a compression member

- a. True
- b. False

(2 marks)

(2 marks)

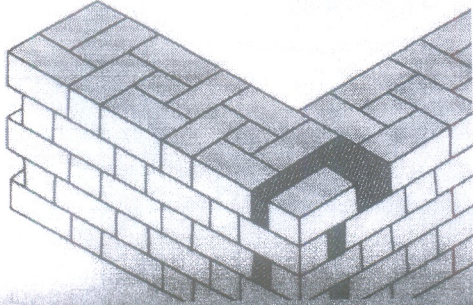


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C. Identify the type of Brick Bond



- a. English Bond
- b. English Garden Bond
- c. Flemish Bond
- d. Flemish Garden Bond

(2 marks)

D. The tool used to check the verticality of wall is

- a. Float
- b. Plum bob
- c. Spirit level
- d. None of the above

(2 marks)

E. Paneled, flush and glazed are types of which doors?

- a. Hinged doors
- b. Revolving doors
- c. Sliding

(2 marks)

F. When Two first class Bricks are struck with each other what kind of sound does one hears?

- a. crackling sound
- b. a sharp metallic ringing
- c. sound of two wooden rods hitting each other
- d. None. The bricks break.

(2 marks)

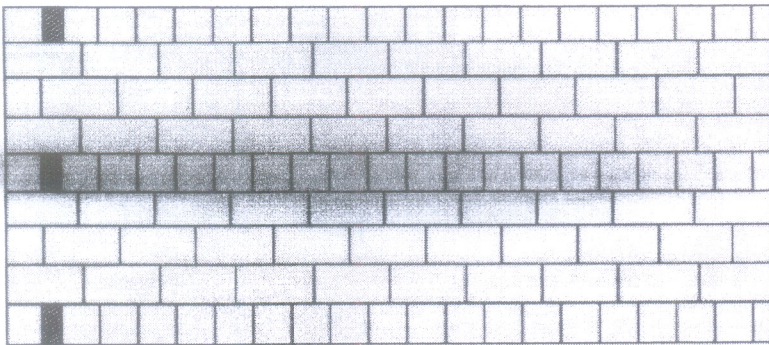
G. Identify the type of brick bond



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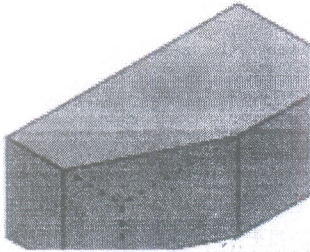
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- a. English Bond
- b. English Garden Bond
- c. Flemish Bond
- d. Flemish Garden Bond

(2 marks)

H. Identify the type of brick



- a. Bevelled Closer
- b. Mitred Closer
- c. King Closer
- d. Queen Closer

(2 marks)

I. Inner surface of an arch is called as-

- a. Intradose
- b. Soffit
- c. \* Springing line
- d. Springer

(2 marks)

J. For what purpose is a Cavity wall constructed.



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- a. Greater Insulation value
- b. Cheap and economical
- c. Moisture resistance
- d. All of the above

(2 marks)

\*\*\*\*\* END OF PAPER \*\*\*\*\*



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SCHOOL OF ENGINEERING & TECHNOLOGY  
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## SECOND YEAR B.ARCH - SEM II ATKT EXAMINATION DECEMBER 2022

Subject - Theory of Structures

Max Marks - 50

Date - 15/12/2022

Duration - 2hrs.

1. Question No 1 is compulsory
2. From question no 2, 3, 4 - Attempt any two questions.
3. Use of non-programmable calculator is allowed.
4. Assume additional data and draw sketches wherever necessary and specify the same.

Q1) Attempt any four

(20M)

- i. Differentiate between one way and two way slab
- ii. Enlist various grades of concrete used on building construction
- iii. What is Simple Bending Theory write with corresponding equation
- iv. Write a short note on Macaulay's method of deflection *thumb rules for design of beams*
- (v) Draw a neat sketch of Vicat apparatus.

Q2)

- a. Explain with neat sketch consistency test on cement (10M)
- b. For a cantilever, simply supported and continuous beam with neat sketch explain the placement of steel bars. (5M)

Q3)

- a. Explain with neat sketch water absorption test on bricks (10M)
- b. Design a beam for a span of 5 metre. The thickness of the wall is 230 mm take  $F_{ck} = 30 \text{ N/mm}^2$  assume percentage of steel as 2% (5M)

Q4)

- a. For the following data determine the direct and bending stress  
Load  $P = 180 \text{ KN}$ , Area of cross section =  $230 \text{ mm} \times 400 \text{ mm}$ ,  $M = 20 \text{ KNm}$  (10M)
- b. Explain with neat sketch compressive strength test on bricks (5M)



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**FIRST YEAR B. ARCH - SEM II ATKT EXAMINATION DEC 2022 ✓**

Subject - Humanities

Max Marks - 50

Date -13/12/2022

Duration – 2 hrs.

Read questions carefully and write down with neat drawn sketches or infographics wherever necessary. Proper sketches will carry more weightage of marks. Answer according to the marks allotted.

NB : Attempt any five questions. All questions carry 10 marks each

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Q.1 Explain the planning of the Acropolis at Athens. Give notes on any two structures from the acropolis precinct.

Q2. Short Note on any 2 of the following:

Rosetta Stone

Trabeated construction and petrification

Influence of Greco-roman style on modern architecture

Q3. Write brief definitions for 2 the following:

a. Caryatid

b. Greek Orders

c. Peripteral

Q4. Describe in detail the architecture of the Ancient Greeks as an essay

Q5. Draw in Detail five classical orders of architecture

Q6. Write in brief about the Roman civilisation, using examples of architecture, food, clothing, rituals, beliefs, art etc.