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ANJUMAN-I-SLAM'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/ 2021-22 /

Date: 02/08/22

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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- SCHOOL OF ENGINEERING & TECHNOLOGY
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Subject - Architectural Building Construction and Materials II

Date - 11/07/2022

Max Marks - 70

Duration - 3hrs.

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

(5marks)

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

(10 marks)

Q.9 Design a Jaali wall of 1 brick thick

(10 marks)

Q.10 MCQ type questions:

A. What are the dimensions of a standard brick?

- 230mm x 115mm x 75mm
- 190mm x 110mm x 70mm
- 300mm x 150mm x 75mm
- 115mm x 90mm x 45mm

(2 marks)

B. An arch is mainly a compression member

- True
- False

(2 marks)

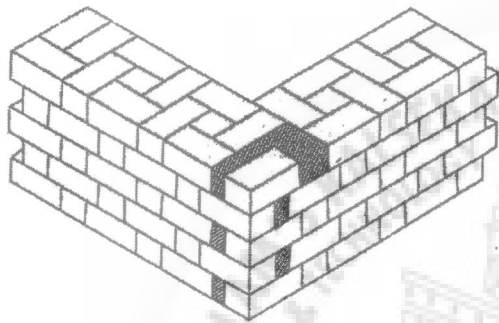
C. Identify the type of Brick Bond



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- 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)

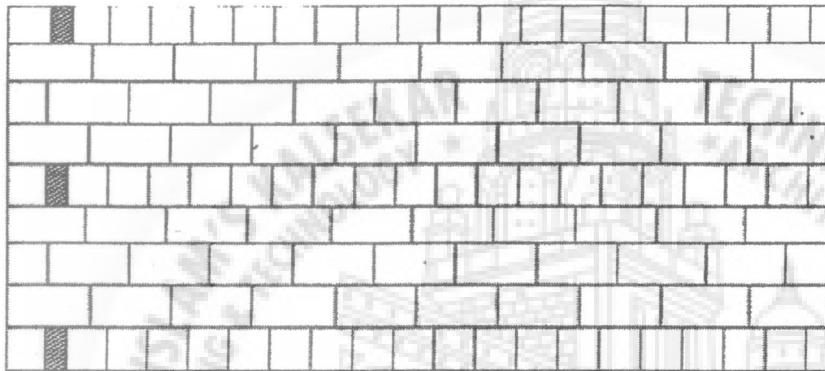
G. Identify the type of brick bond



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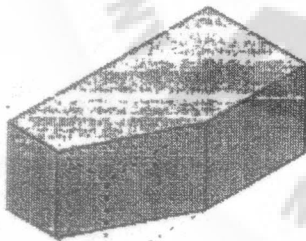
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- a. English Bond
- b. English Garden Bond
- c. Flemish Bond
- d. Flemish Garden Bond

(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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FIRST YEAR B.ARCH - SEM II EXAMINATION JULY 2022

Subject - TOS

Max Marks - 50

Date - 20/07/2022

Duration - 2hrs.

Question No 1 is compulsory.

From question no 2, 3, 4 - Attempt any two questions.

Use of non-programmable calculator is allowed.

Assume additional data and draw sketches wherever necessary and specify the same.

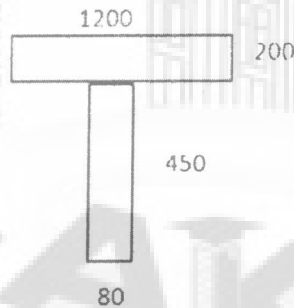
Q1) Attempt any four

(20M)

- i. Define centre of gravity and centroid of body with suitable examples
- ii. Explain shear force and bending moment and write their units
- iii. Explain different types of loads
- iv. What is Simple Bending Theory, "write its assumptions and importance.
- v. Draw a simply supported beam with uniformly distributed load over it

Q2)

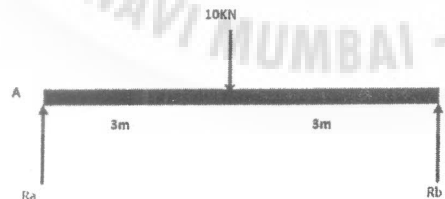
- a. Draw a rectangle and triangle and show their C.G. (5M)
- b. Calculate the centre of gravity of given section along y axis (all dimensions are in mm)



(10M)

Q3) Compute the reactions, and draw SFD and BMD of the following section

(15M)



Q4)

- a. In short Explain the functions of foundation, column, beam, and slab in a structure (5M)
- b. Explain in detail various types of beams (15M)



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FIRST YEAR B.ARCH - SEM II EXAMINATION JULY 2022

Subject - Humanities

Max Marks - 50

Date -13/07/2022

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 : Question No. 1 is compulsory, answer any 4 from remaining 5. All questions carry 10 marks each

Q.1 Answer if True or False from the following statements:

- a. Lead was used in plumbing during the Roman times
- b. A caryatid is a type of column
- c. Concrete was founded as a building material by the Greeks
- d. Women played a big role in Greek politics
- e. The Pantheon was a temple dedicated to Athena

Q2. Short Note on any 2 of the following:

- d. Rosetta Stone
- e. Trabeated construction and petrification
- f. Influence of Greco-roman style on modern architecture

Q3. Write in brief about the Roman civilisation, using examples of architecture, food, clothing, rituals, beliefs, art etc.

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

Q5. Explain the planning of Acropolis at Athens. Give notes on any two structures from the acropolis precinct.

Q6. Write brief definitions for 2 the following:

- a. Caryatid
- b. Greek Orders
- c. Peripteral