



ANJUMAN-UL-ISLAM'S

**AIKTC 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/ /

Date: \_\_\_\_\_

School: SoA-CBSGS

Branch: SoA

SEM: II

To,  
Exam Controller,  
AIKTC, New Panvel.

Dear Sir/Madam,

Received with thanks the following <sup>✓</sup> <sup>KT</sup> 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			✓	02
2	Theory & Design of Structures II			✓	02
3	Humanities			✓	02
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,  
Recognised by : Directorate of Technical Education, Govt. of Maharashtra, Affiliated to : University of Mumbai.

- SCHOOL OF ENGINEERING & TECHNOLOGY
- SCHOOL OF PHARMACY
- SCHOOL OF ARCHITECTURE

**B.ARCH. SECOND YEAR- SEMESTER II (OCTOBER 2018 ATKT EXAM)**

**SUBJECT: ARCHITECTURAL BUILDING CONSTRUCTION  
TOTAL MARKS: 70**

**Duration: 3 hours  
Date: 31/10/2018**

Notes:

- Answer **five** questions from the given **seven** options.
- Numbers on the right hand side indicate marks for each question.
- Support all answers with neat sketches.

1. Draft an Segmental Arch OR Semi-circular Arch. Span- 10 m at Scale of 1:10.....10 marks.  
**Explain** in terms of  
I. Possible **Materials**.  
II. **Components** of Arches.
2. What are Lintels? Explain **Components** and **Types** of Lintels .....05 marks.  
OR
3. Explain in detail **the construction** of an Arch with Any 1 example.....05 marks.
4. What is **Specification**? Explain **the necessity** of Specifications.....05 marks.
5. Explain in detail on **how to write** the Specifications?.....05 marks.
6. Explain with sketches on **how to choose a material palette** for a building which is to be designed in Assam OR Goa OR Jaipur  
With respect to  
1. Properties  
2. Climate  
3. Advantages  
4. Disadvantages.....10 marks.
7. Define and Explain with examples what are **Envelopes and Cladding** in architectural context to a building.....05 marks.
8. Explain with help of sketches  
**Random Rubble Masonry and its types and Ashlar Rubble Masonry**.....05 marks.
9. Define and explain the **difference between Cement and Concrete**?  
What is **Curing**?.....05marks.
10. What are **Load Bearing Structures and Framed Structures**?  
Write the **Advantages and Disadvantages** for the same.....10 marks.
11. Explain the following **Materials with Properties, Advantages and Disadvantages**  
1. Timber 2. Stone 3. Mud 4. R.C.C. 5. Steel .....10 marks.



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**B.ARCH. THIRD YEAR- SEMESTER 2 (OCTOBER 2018-19 EXAMINATION)**

**SUBJECT: THEORY AND DESIGN OF STRUCTURES II**

**Duration: 2 hours**

**TOTAL MARKS: 50**

**Date: 29/10/2018**

**Notes:**

- 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.

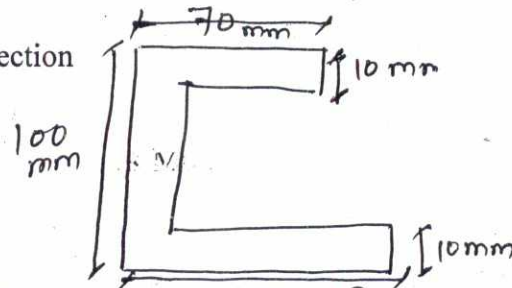
**Q1) Attempt any four**

(20M)

- i. Explain Poisson's Ratio, Modulus of Rigidity and Bulk Modulus
- ii. What is Simple Bending Theory with example
- iii. Explain different types of Stresses
- iv. What are Centre of Gravity and Centroid of a body.
- v. Give SI units of Shear Force, Bending Moment, Moment of Inertia, Centre of Gravity & Strain.

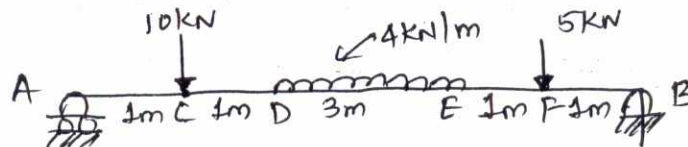
**Q2) Calculate Moment of Inertia of following section**

(15M)



**Q3) Analyse the following beam and calculate Reactions, SFD and BMD**

(15M)



**Q4) Draw FBD, SFD and BMD of the following:**

(15M)







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SEM II B.ARCH EXAMINATION OCTOBER 2018 (A.T.K.T.)

Subject: Humanities

Max Marks: 50

Date : 30/10/2018

Duration: 2 Hrs.

Note

Answer any five .

Each Answer carries 10 Marks.

Support your answers with sketches wherever necessary.

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Q.1 People of Indus valley civilization were highly sophisticated and having knowledge about all spheres of life. Support the statement in detail.

Q.2 How geographical, political, social and cultural factors are responsible for shaping any civilization? Elaborate with appropriate examples wherever necessary.

Q.3. Write short note on the following: (Any 2)

a. Aqua Duct

b. Chaitya hall

c. Mastaba

d. Sumerian period

Q.4 . Write about contribution of Vedic culture in Architecture.

Q.5 Write briefly on Roman Senate.

Q.6 Draw in detail the five Classical Orders of Architecture.

Q.7.Draw and explain the salient features that distinguish the Dravidian style temples from Nagara style temples.

Q.8.Draw and name any three types of ancient Greek temple plans. Also what is the plan typology of Parthenon, Athens?