

ANJUMAN-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: IV

To,  
Exam Controller,  
AIKTC, New Panvel.

Dear Sir/Madam,

Received with thanks the following <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			✓	
2	TOS 4			✓	
3	Architectural Building Services			✓	
4	Humanities			✓	
5	Architectural Representation & Detailing				

Note: SC – Softcopy, HC - Hardcopy

(Shaheen Ansari)  
Librarian, AIKTC



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Approved by All India Council for Technical Education, Council for Architecture, Pharmacy, Engineering, and Design, New Delhi.  
Recognized by Government of Maharashtra, Mumbai.

SCHOOL OF DISTANCE EDUCATION  
SCHOOL OF PHARMACY  
SCHOOL OF ARCHITECTURE

**SECOND YEAR B.ARCH - SEM IV ATKT EXAMINATION OCTOBER 2022**

**Subject - Architectural Building Construction**

**Max Marks - 50**

**Date - 13/10/2022**

**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.  
Q.1 is compulsory, Attempt any 4 out of remaining.**

- Q.1** Explain a strip section of a G+1 Storey steel structure with details at foundation level, plinth level, floor level, terrace level Considering proper column and beam size of steel stanchion. 10M
- Q.2** Write a note on Advantages and Disadvantages of steel structure. Elaborate it with different types of steel structure. 10M
- Q.3** Write in a brief with neat drawn sketches 10M
- A. Edge gutter detail in a steel truss  
B. Draw different types of steel roof trusses according to respective spans.
- Q.4** Design and Draw a large proportionate elevation of steel truss with a clear span of 12m by showing proper sizes of tie beam and struts. Mention the angles used for construction. 10M
- Q.5** Write a note on 10M
- a. Glazing detail in North light truss.  
b. Difference between RCC structure and steel structure.
- Q.6** Elaborate on advantages of steel roof truss over timber roof truss. 10M
- Q.7** Attempt below questions - 10M
- A. Explain methods of connecting steel work - Riveting and Welding  
B. Elaborate on available Indian standards of steel.





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**SECOND YEAR B.ARCH - SEM IV ATKT EXAMINATION OCTOBER 2022**

Subject - TOS4

Max Marks - 50

Date -10/10/2022

Duration - 2hrs.

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

Q1	Attempt any FOUR.	05 x 4 = 20 Marks
A	Write advantages and disadvantages of Steel structure.	
B	Explain cube test in short.	
C	Explain procedure of fineness modulus of sand.	
D	Types of foundation describe in brief	
E	Explain Plastic Limit and Liquid Limit.	
F	Explain suitability and advantages of combined footing.	

Q2	Attempt any ONE.	10 x 1 = 10 Marks
A	For the given beam calculate a. support reactions b. Draw SFD and BMD. c. Determine deflection at centre by Macaulay's Method.	
B	For the given beam calculate a. Fixed Moments b. Draw SFD and BMD.	





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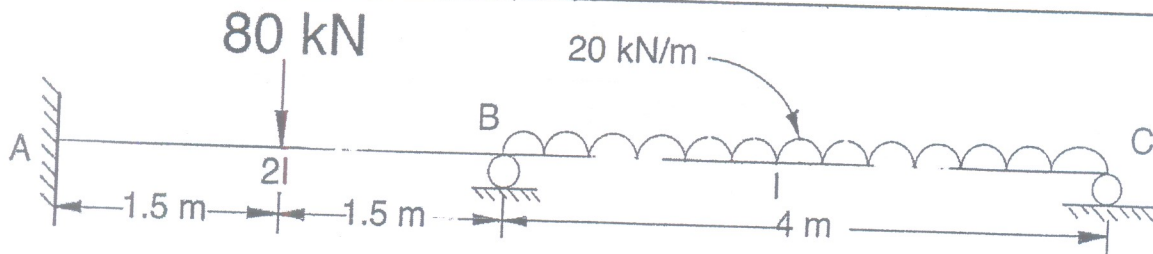
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c. Determine deflection at centre by Double Integration Method

<b>Q3</b>	<b>Attempt any ONE.</b>	<b>10 x 1 = 10 Marks</b>
A	Test on a fill reveal that one cubic meter of soil in the fill weight 1624 kg after being dried, 1.4 tons. If the specific gravity of solid is 2.75. Determine the water content, void ratio, porosity and degree of saturation of soil mass in moist state.	
B	Compare between compaction and consolidation .	

<b>Q4</b>	<b>Attempt any ONE.</b>	<b>10 x 1 = 10 Marks</b>
A	Draw BMD and deflected shape of the following figure by moment distribution method.	
B	Draw BMD and deflected shape of the following figure by moment distribution method.	





**SECOND YEAR B.ARCH - SEM IV ATKT EXAMINATION OCTOBER  
2022**

Subject - Architectural Building Services

Max Marks - 50

Date - 12/10/2022

Duration - 2hrs.

Read questions carefully and write down with neat drawn sketches.

Proper sketches will carry more weightage of marks.

Answer according to the marks allotted.

Q.2 is compulsory, Attempt any 3 out of remaining.

Q.1. Elaborate with the help of sketches the use of septic tank in the drainage system. (10M)

Q.2. Write short notes on-(Any 4) (20M)

- Inspection Chamber
- Nahani trap
- Bottle trap
- Different materials used for pipes in sanitation system
- Water seal in traps
- Intercepting trap

Q.3. Consider a bungalow on site of 10mx10m and locate 2 Toilets and 1 kitchen wherever you wish(do not detail out the drawing make a single plan).Design a sanitation layout for the same.Mark the gully traps, I.Cs and also show the invert level calculations for the same.(10M)

Q.4. Design the storm water drainage system for a building 5m x 8m on a measuring site 10m x 16m.Demarcate the ridge, valley, downtake pipes, storm water drains at the site level.Also make a detail sketch of storm water drain with the compound wall. (10M)

Q.5. Explain different types of waste water generated in Toilets, Bathroom, Kitchen, etc and how they are carried out through building drainage system. (10M)

Q.6. What is an I.C? How does it work? Explain how invert level is calculated for I.C's. Explain with proportionate sketches. (10M)





**SECOND YEAR B.ARCH - SEM IV ATKT EXAMINATION OCTOBER 2022**

Subject - HUMANITIES 4

Max Marks - 50

Date -11/10/2022

Duration - 2hrs.

**Read questions carefully and write down with neat drawn sketches.**

**Proper sketches will carry more weightage of marks.**

**Answer according to the marks allotted.**

**Answer Any Five**

Q1. Sketch basic layout of a Jewish Prayer house and label its interior elements. (10 M)

Q2. Sketch Geographical stages of Spread of Islam (10 M)

Q3. Draw and write briefly on the following-(Any 2)

a. Menorah

b. Altar

c. Mihrab

d. Ark of covenant

e. Basilica (10 M)

Q4. Briefly describe and sketch the evolution of church forms. (10 M)

Q5. Sketch the layout of a mosque and explain its components. (10 M)

Q6. What were the major reasons of the establishment of Christianity as a Religion. (10 M)

Q7. Explain the important factors that have assisted spread of faith. Support answer with examples and sketches. (10 M)

