



*Knowledge Resource & Relay Centre (KRRC)*

AIKTC/KRRC/SoA/ACKN/QUES/ 2021-22/

Date: 02/08/2022

School: SoA-CBSGS Branch: SoA

SEM: IV

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			✓	
2	Theory and Design of Structures			✓	
3	Architectural Building Services			✓	
4	Humanities			✓	
5	Architectural Representation & Detailing			✓	

Note: SC – Softcopy, HC - Harcopy

(Shaheen Ansari)  
Librarian, AIKTC



ALJUMAN-I-ISLAM'S

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**SECOND YEAR B.ARCH - SEM IV ~~ARCH~~ EXAMINATION APRIL 2022**

Subject - Architectural Building Construction & Materials 4  
Date - 28/04/2022

Max Marks - 50  
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 & Q. 5 is compulsory, Attempt any 2 out of remaining.

**Q. 1 Attempt any five of following (2 MARKS EACH) 10M**

- 1) Draw the sketch of equal and unequal angle indicating flange, fillets and web.
- 2) All steel members are to be painted with suitable.....whenever exposed.
- 3) Why are industries generally constructed in steel structures?
- 4) Mention Different Names of the Available Indian Standards of Steel.
- 5) Draw the difference of riveting and welding to join two different steel members.

**Q. 2 Write in a brief with neat drawn sketches 10M**

- a. Edge gutter detail in a steel truss
- b. Draw two different details of Steel column to steel base plate by using two different types of column sections
- c. Advantages and Disadvantages of Steel Structure.
- d. Draw different types of steel roof trusses according to respective spans.

**Q.3 Compare steel roof truss with timber sloping roof, elaborate with neat drawn sketches. 10M**

**Q.4 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. 10M**

**Q.5 Design and Draw a large proportionate elevation of steel truss with a clear span of 9m by using 2 Nos. of equal angle (75 x 75 x 8) as tie beam and strut (50 X 50 X 6). Show all point details properly (Ridge detail, Gutter detail and corrugated sheet covering attachment to truss) Use appropriate scale (1:20) 20M**



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Subject -TOS4

Max Marks - 50

Date -12/05/2022

Duration - 2hrs.

Read questions carefully and write down with neat drawn sketches.

Proper sketches will carry more weightage of marks.

<b>Q1</b>	<b>Attempt any FOUR.</b>	<b>05 x 4 = 20 Marks</b>
A	Write advantages and disadvantages of Steel structure.	
B	How to determine the compressive strength of concrete, explain procedure.	
C	Explain procedure of fineness modulus of sand.	
D	A soil sample has a porosity of 45%. The specific gravity of solids is 2.65. Calculate void ratio and dry density of soil.	
E	Explain Plastic Limit and Liquid Limit.	
F	Explain suitability and advantages of spread footing.	
<b>Q2</b>	<b>Attempt any ONE.</b>	<b>10 x 1 = 10 Marks</b>
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. support reactions b. Draw SFD and BMD. c. Determine deflection at centre by Double Integration Method.	

P.T.O.

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<b>Q3</b>	<b>Attempt any ONE.</b>	<b>10 x 1 = 10 Marks</b>
Draw BMD and deflected shape of the following figure by moment distribution method.		
<b>B</b>	Draw BMD and deflected shape of the following figure by moment distribution method.	

<b>Q4</b>	<b>Attempt any ONE.</b>	<b>10 x 1 = 10 Marks</b>
<b>A</b>	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>B</b>	Explain Compaction and consolidation of soil in detail.	

\*\*\*\*\*ALL THE BEST\*\*\*\*\*



**SECOND YEAR B.ARCH - SEM 4 REGULAR EXAMINATION APRIL 2022**

Subject - Architectural Building Services

Max Marks - 50

Date - 27/04/2022

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.7 and Q.8 is compulsory, Attempt any 4 out of remaining.

Q.1. Explain different types of waste water generated in Toilets, Bathroom, Kitchen, etc and how they are carried out through building drainage system.

(8M)

Q.2. Explain the following with neat sketches.

- a) Nahni/Floor trap
- b) Bottle trap
- c) Water seal level

(8M)

Q.3. With the help of a proportionate sketch explain the working of a Septic tank.

(8M)

Q.4. Explain the working of Single stack system with proportionate sketches.

(8M)

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**Q.5.** What is an I.C? How does it work? Explain how invert level is calculated for I.C's. Explain with proportionate sketches.

(8M)

**Q.6.** With the help of neat sketches explain all the types of traps used in building drainage system

(8M)

**Q.7.** Answer the following in one or two words

1)waste water which does not contain sewage is known as \_\_\_\_\_

a)Sullage b)Sewage c)Sewerage d)Grey water

2)What are masonry chambers constructed at suitable intervals along sewer lines called?

a) Traps b)Ventilator c)Manhole d)Sewer

3) House drainage should be laid by the side of the building. TRUE or FALSE

4)What is the size of rainwater pipe?

a)25mm b)50mm c)75mm d)100mm

(8M)

**Q.8.** Consider a Villa on site of 10mx12m and locate 2 Toilet wherever you wish(do not detail out the drawing make a single plan).Design a drainage system for the same, Placing all the elements required in building drainage system,also show the invert level calculation for I.C's.

(10M)



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**B.ARCH. THIRD YEAR- SEMESTER IV (APRIL 2021-22 ~~2021~~ EXAM)**

SUBJECT: **HUMANITIES.**

Duration: 2 hours

TOTAL MARKS: 50

Date: 26/04/2022

Notes:

- Answer any 5.
- Numbers on the right hand side indicate marks for each question.
- Support all answers with neat sketches.

Q1. Write about Judaism. Draw the Western wall and write briefly about it.

(10 M)

Q2. Draw and describe in detail any Mosque.

(10 M)

Q3. Draw the historical layers depicting the evolution of St. Peter's Basilica

(10 M)

Q4. Draw and write briefly on the following- ( any 2 )

Ark of the Covenant

Dome of the Rock

Tabernacle

Passage Tomb, Ireland

Five Pillars of Islam

Scriptures and Faith

(10 M)

Q5. Draw and explain three holiest shrines of Islam.

(10 M)

Q6. Explain the important factors that have assisted spread of faith. Support answer with examples and sketches.

(10 M)

Q7. Explain the widely believed reasons behind the beginnings of faith. Quote examples.

(10 M)

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