

**Knowledge Resource & Relay Centre (KRRC)**

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

Date: 02/08/2022School: SoA-CBSGSBranch: SoASEM: V

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

Note: SC – Softcopy, HC - Hardcopy

(Shaheen Ansari)  
Librarian, AIKTC

B.ARCH. THIRD YEAR- SEMESTER V (APRIL 2021-22)

SUBJECT : ARCHITECTURAL BUILDING CONSTRUCTION

DURATION: 3 hours

TOTAL MARKS: 50 MARKS

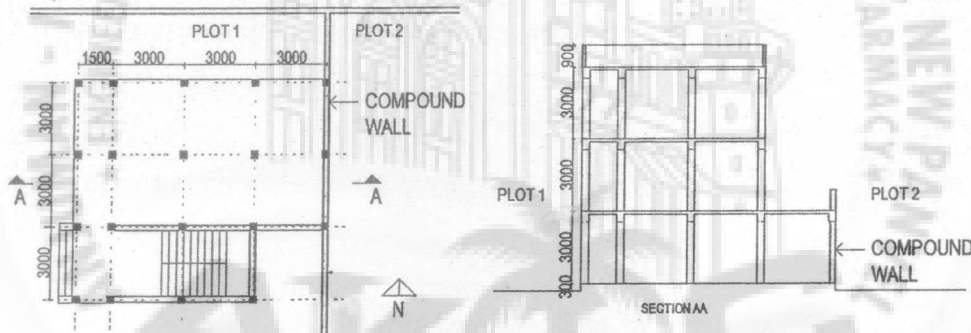
Date: 21/04/2022

Notes:

- All questions are compulsory unless and until mentioned
- Numbers on the right hand side indicate marks for each question.
- Support all answers with neat sketches.

Q1. Following is a plan / section of a G+2 commercial building located in Jaipur, Rajasthan. Building has a common wall sharing to next plot

Column size -300x300 mm, floor to floor height-3000 mm, slabs thk. -120 mm, Beam size-300 x450 mm. Draw a footing layout showing various types of pad foundation at 1:100 scale. Draw sections of any two types of pad foundations with appropriate nomenclature and dimensions at 1:20 scale. (20 marks)



Q2. What is soil bearing capacity (SBC) of a soil? Explain different types of shallow and deep foundations as well as their application with respect to SBC. (10 marks)

OR

Q2. Draw detailed section of raft foundation with shear wall, reinforcement details and waterproofing details (scale 1:20) (10 marks)

Q3. Write short note (any two) sketches are compulsory

- Curtain wall details
- Types of raft foundation
- Buoyant foundation

(10 marks)

OR

Q3. Design an entrance canopy for a commercial building having 6 m wide opening. Draw plan and section of canopy with gutter detail at 1:20 scale (10 marks)

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Q4. Choose the right answers for the following questions

(10 marks)

- 1) ----- is the biggest particle in soil composition
  - e) Gravel
  - f) Sand
  - g) Silt
  - h) Clay
  
- 2) Full form of SBC is \_\_\_\_\_
  - a) Structural Bearing Capacity
  - b) Stone bearing capacity
  - c) Soil Bearing Capacity
  - d) None of the above
  
- 3) Select the odd word
  - e) Spread footing
  - f) Isolated Footing
  - g) Raft foundation
  - h) Pile foundation
  
- 4) Pile foundation is a type of shallow foundation
  - a) True
  - b) False
  
- 5) Isolated footing is type of shallow foundation
  - a) True
  - b) False



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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.

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- SCHOOL OF PHARMACY
- SCHOOL OF ARCHITECTURE

**B.ARCH. THIRD YEAR- SEMESTER V (APRIL 2021-22 ATKT EXAM)**

SUBJECT: TOS

Duration: 2 hours

TOTAL MARKS: 50

Date: 18/04/2022

Notes:

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

Q.1. Types of rivet connections. (10 M)

Q2. Draw diagram of fillet weld with all its terminologies. (10M)

Q.3. Write a note on welded connections along with advantages and disadvantages (10 M)

Q.4.Explain butt weld and fillet weld with neat sketches (10 M)

Q.5.Write the formula for design strength of fillet weld (10 M)

Q.6.Bearing and Shearing Failure in Bolted Joints (10 M)

Q.7.Find the design strength for a plate in KN if width is 190 mm with 22 number of holes whereas the number of bolts at critical section is 2 bolts . The thickness of main plate is 12 mm. (10 M)

Q.8. Write formula for tensile strength of plate (10 M)



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SEM V B.ARCH EXAMINATION ATKT APRIL 2022(Academic year 2021-22)

Subject: **Humanities**  
Date: 19.4.2022

Max Marks: 50  
Duration: 2 Hrs.

**Note**

Support your answers with info graphics wherever necessary.  
Answer any 4 questions from Q.NO.2-Q.NO.6

Q.1 Select and write the correct option.

A.Criteria for listing as heritage building includes .....2

- a.Age of structure
- b.Strength of structure
- c.Historic significance

B.Ar.Alvar Alto is famous for working in which architectural style.....2

- a.Modernism
- b.Critical regionalism
- c.Postmodernism

C.Mumbai Is Built On What Was Once An Archipelago Of Seven Islands which includes....2

- a.Vasai
- b.Wadala
- c.Mazgaon

D.Example of Indo sarcenic style of architecture..... 2

- a.The Taj hotel,Mumbai
- b.Town Hall,Mumbai
- c.Nehru planetorium,Mumbai

E.Absence of harmony,continuity and symmetry is characteristic of which design approach.....2

- Postmodernism
- Biomorphism
- Deconstructivism
- None of above



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Q.2 Write short note on.....10

- a. Deconstructivism
- b. Postmodernism
- c. Impact of colonisation on Indian architecture.
- d. Work of F.L. Wright

Q.3 How did modernism change the perception of society especially through architecture?...10

Q.4 Discuss any one work of contemporary architect which influence you and why, with his architectural style.

.....10

Q.5 What are the criteria's for listing of heritage buildings? Discuss the grading of heritage buildings.....10

Q.6 Exemplify the three styles of architecture at Pondicherry. Discuss the climatological and socio-cultural implications of all the three designs.....10