



*Knowledge Resource & Relay Centre (KRRC)*

AIKTC/KRRC/SoA/ACKN/QUES/2019-20/

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

School: SoA-CBSGSBranch: SoASEM: V

To,  
 Exam Controller,  
 AIKTC, New Panvel.

Dear Sir/Madam,

Received with thanks the following <sup>(Reg)</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 5			✓	02
2	Theory & Design of Structures 5			✓	02
3	Architectural Building Services 3			✓	02
4	Humanities			✓	02
5	Architectural Representation & Detailing			-	-
6	Architectural Theory			-	-

Note: SC – Softcopy, HC - Hardcopy

(Shaheen Ansari)  
 Librarian, AIKTC



ANJUMAN-I-ISLAM'S

KALSEKAR TECHNICAL CAMPUS, NEW PANVEL

Approved by : All India Council for Technical Education, Council of Architecture, Pharmacy Council of India New Delhi,  
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SCHOOL OF ENGINEERING & TECHNOLOGY

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B.ARCH. THIRD YEAR- SEMESTER V (OCTOBER 2019-20)

SUBJECT : ARCHITECTURAL BUILDING CONSTRUCTION

DURATION: 3 hours

TOTAL MARKS: 50 MARKS

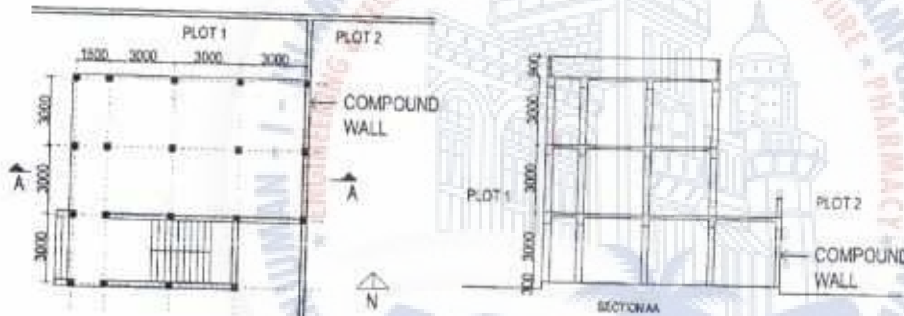
Date: 25/10/2019

Notes:

- Question 1 is compulsory, Answer any three questions from the remaining questions
- 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 Mumbai, Maharashtra. 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. For the above building Identify facade where curtain wall would be applied. Draw details for the same. (10 marks)

Q3. Draw detailed section of raft foundation with shear wall, reinforcement details and waterproofing details (scale 1:20) (10 marks)

Q4. Write short note (any two) sketches are compulsory

- A. Spread foundation
- B. Types of raft foundation
- C. Buoyant foundation

(10 marks)

Q5. Design an entrance canopy in steel for a residential building having 6 m wide opening. Draw plan and section of canopy with gutter detail at 1:20 scale (10 marks)



IR@AKTC

Tos-V

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**B.ARCH. THIRD YEAR- SEMESTER V (OCTOBER 2019-20 REGULAR EXAM)**

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

**Duration: 2 hours**

**TOTAL MARKS: 50**

**Date: 22/10/2019**

**Notes:**

- 1) Question No 1 is compulsory.
- 2) From question no 2, 3 & 4 - Attempt any two questions.
- 3) Assume  $f_y = 250$  MPa,  $E = 2.4 \times 10^5$  MPa.
- 4) Use of non-programmable calculator, steel table and extracts of IS 800 is allowed.
- 5) Assume additional data wherever necessary, and specify the same.

**Q1) Attempt any four**

**(20M)**

- i. Explain lap joint and butt joint for riveting or welded connection.
- ii. Why and where gusset plates is used in footing, explain through examples.
- iii. Write notes on different types of failures in joints.
- iv. Show different types of individual built up steel section and give advantages and disadvantages of steel structure over other material structure.
- v. Explain different structural behaviors of laterally restrained and unrestrained beam in different types of loading with the help of sketches.

**Q2) Design steel column for centrally loaded 780 kN load for span 3.4 m effectively held in position and restrained in direction only at both ends.**

**(15M)**

**Q3) Calculate safe load for laterally unrestrained steel beam ISHB 300 @ 63 kg/m of span 2.5 m**

**(15M)**

**Q4) Compute safe load for tension member, ISA 75 x 75 x 8 placed side by side doubly riveted of diameter 16 mm.**

**(15M)**



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**T.Y.B.ARCH, SEM-5, OCT 2019**

SUBJECT: Arch. Building Services

Duration: 2 hours

TOTAL MARKS: 50

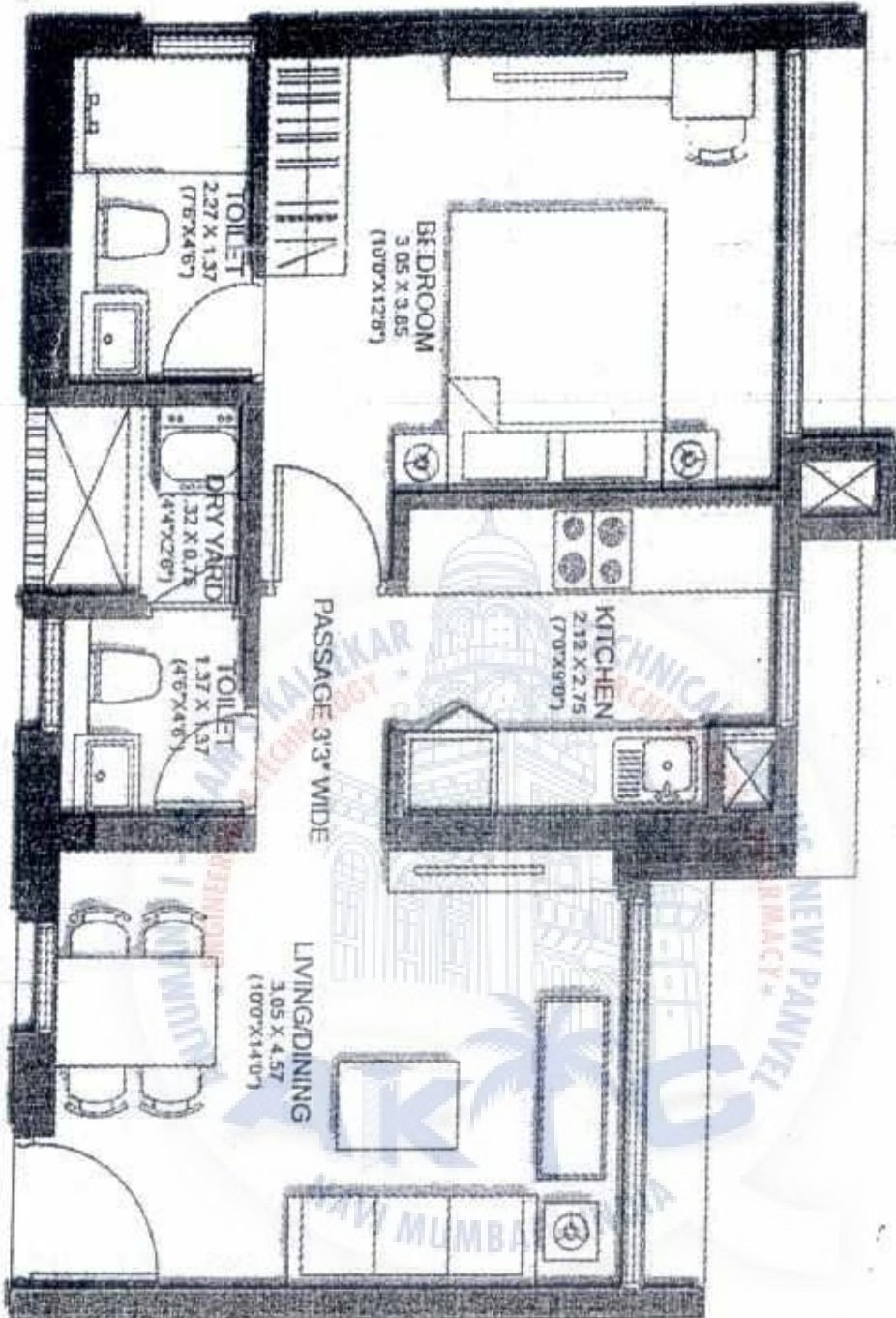
Date: 23/10/2019

- Question no.1 is compulsory, attempt any 3 from remaining.
- Numbers on the right hand side indicate marks.
- Draw neat and proportionate sketches wherever required.

- Q1. Design and draw a suitable electrical layout for the given plan. (Use the Sheet attached with the Question Paper)
- Indicate all the electrical equipment, fixtures and fittings and draw a legend showing the details of these installations.
  - Show the location of switch-boards and make a schedule for switchboards, with required details (no. of modules, height, Amperage of power sockets). {20}
- Q2. Explain the following in brief: (any two) {10}
- a) RCCB and ELCB
  - b) Diffraction of a sound wave
  - c) How a delay of  $1/10^{\text{th}}$  second or more, of any reflected sound wave causes echo in a space.
- Q3. Write in detail about Earthing and its types as a means of protection for over-current in electrical systems? {10}
- Q4. Explain following: {10}
- a) Harmonics and octave
  - b) What does an SLD (Single Line diagram) represent in electrical drawings
- Q5. Write in Brief about
- a) Reverberation of sound
  - b) Any two acoustical defects

**Innovative Teaching - Exuberant Learning**  
 Vision: To be the most sought after academic, research and practice based school of Architecture that others would wish to emulate.

Attach this sheet with answer book.





SEM V B.ARCH EXAMINATION OCT-NOV 2019-20

Subject: Humanities  
Date: 24:10:2019

Max Marks: 50  
Duration: 2 Hrs.

Note

Support your answers with info graphics wherever necessary.

Q.1. Discuss the planning and development of Bombay..... 15  
Consider the design and geographical setting of the ports, Fort and the railway line at Bombay.  
Also consider the impact of various events and how these events affect the development of Bombay.

Q.2 How did modernism change the perception of society especially through architecture?  
OR

What is industrial revolution and How did the industrial revolution change the field of architecture explain with examples.....10

Q.3 Discuss any one work of contemporary architect which influence you and why with his architectural style. ....10

OR

Write short note on:

- a. Work of Lauri Baker
- b. Deconstructivism
- c. Art deco
- d. Indo-sarcentic

Q.4 What is conservation and what are types of conservation, explain with examples.

OR

Prepare comparative analysis statement explaining ideology of Critical regionalism, postmodernism and modernism. Also support your answer with example.....15