



Symbol of Secularism  
& National Integration

**ANJUMAN-I-ISLAM'S**  
**KALSEKAR TECHNICAL CAMPUS, NEW PANVEL**  
**School of Architecture**

Approved & Recognized by: All India Council for Technical Education and Council of Architecture, New Delhi

Directorate of Technical Education, Govt. of Maharashtra Affiliated to: University of Mumbai

**THIRD YEAR B.ARCH EXAMINATION 2017-18** (ATKT)

Subject: Building Construction-(SEMESTER-V)

Max Marks: 50

Date: 23/04/2018

Duration: 3 Hrs. (10.00A.M to 1.00P.M)

Note – Question number 1 & 2 are compulsory, attempt any one from Q3 & Q4.

Q1. Short notes (any four) sketches are compulsory

(20 marks)

- A. Describe raft foundation and sketch its types
- B. Eccentrically loaded column footing.
- C. Strap footing
- D. Describe failures in RCC structures.
- E. Positioning of shear walls
- F. Waterproofing of shear wall

Q2. Draw section of basement for multi-storey RCC building explaining its reinforcement details(scale 1:20)

(15 marks)

Q3. What are canopies? Draw plan and section of steel canopy at 1:20 scale with gutter details . Consider appropriate case for the canopy.

(15 marks)

Q4. Draw plan & section of Trapezoidal combined footing explaining its reinforcement details (scale 1:20).

Consider column sizes to be 450mm X450 mm thick and 300mm X 300 mm thick.

(15 marks)



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THIRD YEAR B. ARCH- SEMESTER V EXAMINATION APRIL 2018

SUBJECT: Theory and Design of Structures V

Duration: 2 hours

TOTAL MARKS: 50

Date: 24/04/2018

Notes:

- 1) Question no. 1 is compulsory. Attempt any 3 out of the remaining 4.
- 2) Figures to the right indicate full marks.—
- 3) Assume additional data wherever necessary and specify the same.
- 4) Use of non- programmable scientific calculator is allowed.
- 5) Use of Steel tables and Extracts of IS 800 is allowed.

Q. 1. Attempt any 4.

[20]

- i) Explain with sketches Grillage Foundation.
- ii) Explain the choice of Rolled steel sections for columns, also explain built up sections.
- iii) Differentiate between Riveted joints and Welded joints.
- iv) Draw and explain different types of Welds and their applications.
- v) Explain the advantages and disadvantages of Steel Structures.

Q. 2. i) What is meant by rivet value? Find its value for a 20mm dia. rivet.

[4]

ii) Design the Truss element shown in Fig. 1 by using 22mm dia. rivets.

[6]

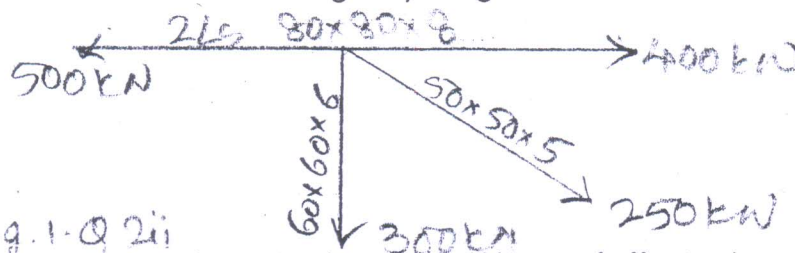


Fig. 1-Q 2ii

Q.3. i.) A section ISMB 400 is used as a simply supported beam of effective length 4m. Find its safe load carrying capacity.

[5]

ii.) Find the safe load that a column, made up of ISMB 400 can carry safely with unsupported length of 7m and effectively held in position and restrained against rotation at both the ends.

[5]

Q.4. Design tentative cross section for a simply supported beam 7m long and subjected to a load of 35kN/m.

[10]

Q.5. Design tentative cross section of a column, 6m unsupported length and subjected to a load of 900kN with one both ends fixed.

[10]

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.



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**B.ARCH. THIRD YEAR- SEMESTER-5, APRIL 2018**

SUBJECT: Arch. Building Services

Duration: 2 hours

TOTAL MARKS: 50

Date: 25/04/2018

- Question no.1 & 2 are compulsory, attempt any 2 from remaining.
- Numbers on the right hand side indicate marks.
- Draw neat and proportionate sketches wherever required.

**Q1. An artificial lighting system has to be designed for a class room of size 10m x 5m, with a height of 3.5 mts. Use LED light fixtures of suitable wattage. {15}**

Required Lux level: 300 Lumen / sq.mt

Assume Utility and Maintenance factors as 0.8

Draw a sketch showing lighting arrangement in the room along with other necessary Electrical appliances (FAN), looping, Switch board locations etc.

**Q2. Write brief Notes on any three: {15}**

- a. Earthing
- b. Types of conductors
- c. Alternate and direct current
- d. Electrical Protective Devices
- e. Types of wiring systems

**Q3. Explain with sketches:**

- a. Acoustical door detail. {10}
- b. Acoustical detail of a partition

**Q4. Discuss various types of acoustical defects with the help of sketches. {10}**

**Q5. Explain Reverberation. What is reverberation time? How is it calculated? {10}**



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SEM V B.ARCH EXAMINATION ATKT APRIL 2017-18

Subject: Humanities  
Date: 26:04:2018

Max Marks: 50  
Duration: 2 Hrs.

Note :

Support your answers with info graphics.

This is not an open book test; students are not allowed books, notes and printouts

Q.1a. Discuss through examples role of Portugal and French rulers in shaping Indian architecture. .... 4

b. Write short note on : ..... 6

- a. Colonisation in India
- b. Postmodernism
- c. Deconstructivism

Q.2. a. Discuss in detail architects and their works which shaped the face of modern India. .... 7  
b. Discuss any one work of any contemporary architect which influences you and why with his architectural style. .... 8

Or

Q.2 a. Discuss Art deco style and neoclassical style of architecture, discuss with examples ..... 7  
b. Discuss neoclassical and gothic revival style of architecture with examples. .... 8

Q.3 What are the criteria for listing of heritage buildings? Discuss the grading of heritage buildings.

Or

Discuss importance of Mumbai from point of view of conservation ..... 10

Q.4 a. Discuss the planning and development of Bombay ..... 8  
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.

b. Write down your experience of study tour of Mumbai from point of view of architecture, what are the learnings .

or

b. Elaborate minimum three movements in art and architecture throughout the world. .... 7