

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE –**RAIGAD -402 103****Winter End Semester Examination – December - 2019****Branch: B. Arch***Sy/IT***Sem.:- III Semester****Subject:- Architecture Design-III****Subject Code: -AR20030001****Date: - 18/11/2019****Marks: 60****Time: - 6 Hour.**

- =====
- INSTRUCTIONS –
1. All questions are compulsory
 2. Do not erase construction lines
 3. Solve all questions on drawing sheets

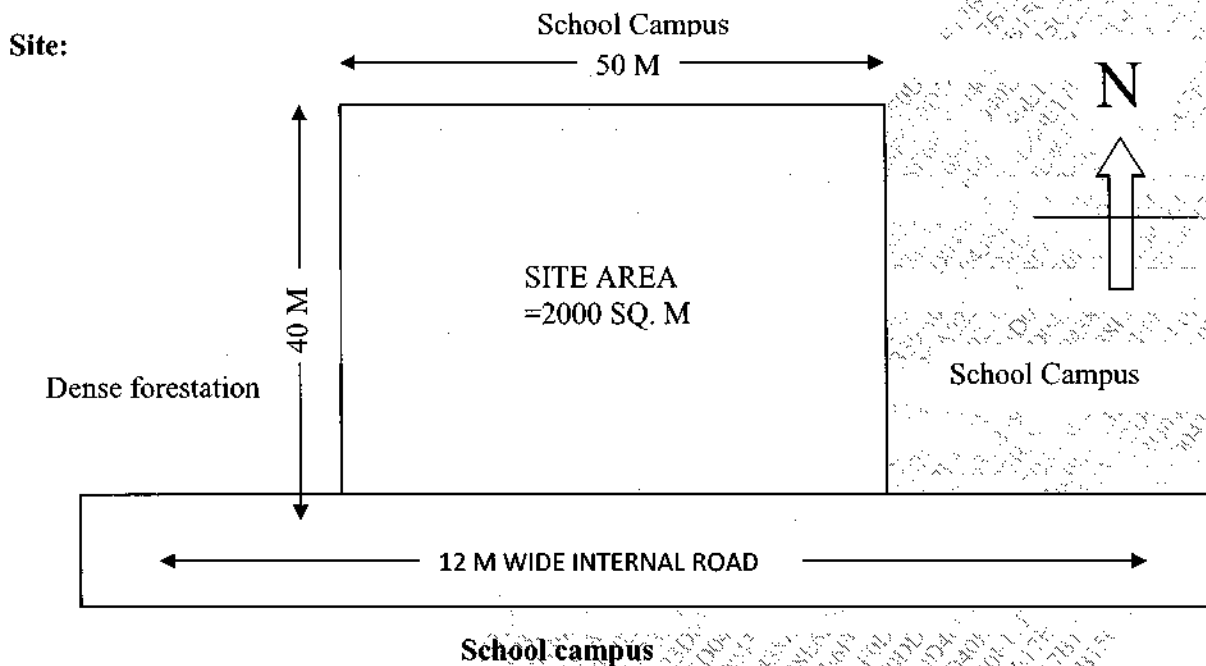
Q.1:-**60 Marks**

A reputed CBSC School, newly constructed in the town, proposes to provide Library building for its Primary school students (1st to 5th std. students). For the same, a well planned Library area is to be designed on the said site of the school campus. **Design a Library for the primary school** which should be interactive and designed with the consideration of primary school point of view. Students need to provide innovative solution considering the primary school student's context and up to the scale, proportions, anthropometry according to standard of design.

The requirements for Library are as below:

Sr. no.	Requirements	Details	Approx Area in Sq.m.
1	Entrance Lobby	Entrance Lobby with belonging storage and Reception	30-35
2	Stack Room	For 3 to 5 thousand books	250-300
3	Reference Section	For 500 books, 20-25 magazines with seating capacity 30-40 students, study section for 10 no. of staff	300-350
4	E- library	For 10 computers with CD, soft material storage	30
5	Administrative office	Librarian's cabin	15
		Clerical section for 2 clerks with storage	30
6	Reading room	For 50 students	100-120
7	Photocopy/publishing dept	For photo copy machine for any working related to publishing	20
8	Documentation centre	Scanning room and storage of the important documents.	20
General requirements			
9	Toilets	For Boys(6), Girls(6) and Physically challenged (1)	Adequate
10	Drinking water	Facility for all students and staff	Adequate
11	Store room	For 1000 books	15

PLOT AREA REQUIRED IS 2000 SQM



Drawing requirement

- 1) Concept / thought process
- 2) Site plan 1:100
- 3) Floor plan(s) 1:50
- 4) Elevation (1 no.) 1:50
- 5) Section (1 no.) 1:50
- 6) 3D sketches –Proportionate

NOTE- 1. Suitable rendering and neat Drawings will carry marks

2. Tracing required for rough work on design should be submitted along with answer sheets
3. Complete labeling and dimensioning carry marks.
4. If some part or parameter is noticed to be missing, you may appropriately, assumes it and should mention it clearly.

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD – 402 103
Semester Examination – Winter 2019**

Branch: B. Arch

Semester: Fifth

Subject: Theory of Structure

Marks: 60 marks

Subject Code: BA18054T

Date: 19/11/2019

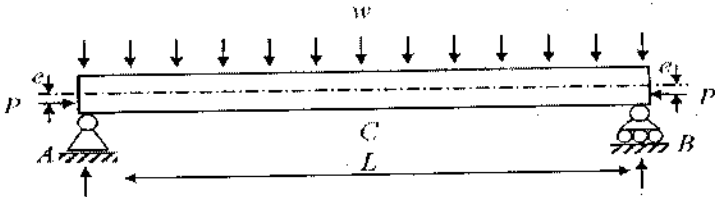
Time: 2 Hrs.

sy/ty

Instructions:

1. All Questions are compulsory.
2. Do not erase construction lines.
3. Draw neat sketches wherever necessary.
4. "Long Answer type Question (LAQ)" is a supply type question of 15 marks which requires a typical answer of about 45-60 lines in about 24-30 minutes.
5. "Short Answer type Question (SAQ)" is a supply type question of 5 marks which requires a typical answer of about 15-20 lines in about 08-10 minutes.

Q. No. 1	Solve any Five out of Eight of the following: (2 marks each) (Questions of Fill in the Blanks)	(10 Marks)
a)	Types of prestressed system in which tendons are stressed to predetermined amount by stretching them prior to placing concrete is known as	(2 Marks)
b)	Is Hyperbolic Paraboloid shell a Singly curved or Doubly curved surface?	(2 Marks)
c)	Practice of assembling components of a structure in a factory or other manufacturing site, and transporting on construction site is known as	(2 Marks)
d)	A bridge in which the deck (the load bearing portion) is hung below suspension cables on vertical suspenders is known as ----- bridge.	(2 Marks)
e)	A bridge including one or more towers from which cable support the bridge deck is known asbridge.	(2 Marks)
f)	Types of prestressed system in which tendons are stressed to predetermined amount by stretching them after casting of concrete is known as	(2 Marks)
g)	Is Dome shell a Synclastic shell or Anticlastic shell?	(2 Marks)
h)	Is need of form work, shuttering and scaffolding in prefabrication is reduced or increased?	(2 Marks)
Q. No. 2	SAQ option: Solve any Four out of Seven of the following: (5 marks each)	(20 Marks)
a)	What are the basic methods of prestressing? Explain anyone with a neat sketch.	(5 Marks)
b)	Explain necessity of use of high strength concrete and high tensile strength steel wires in prestressed concrete member.	(5 Marks)
c)	Explain function /characteristic of shell structure and state the basic difference between shell structure and frame structure.	(5 Marks)
d)	State the advantages and disadvantages of shell structures. What is Anticlastic Shell &	(5 Marks)

	Synclastic Shell ?	
e)	What are advantages and disadvantages of Prefabrications?	(5 Marks)
f)	State Principles(aims) of Prefabrication and state the uses of Prefabrication	(5 Marks)
g)	Give comparison of suspension bridge and cable stayed bridge	(5 Marks)
Q. No. 3	LAQ option: Solve any One out of Two of the following:	(15 Marks)
A.	<p>Explain stresses of simply supported prestressed concrete beam of length L with uniformly distributed external load "w" and prestressing force P at an eccentricity "e" below neutral axis.</p> 	
B.	<p>Give classification of shell structure according to forms of curvature. Explain properties of shell structures. Describe Dome structure with different terminology associated with domes with neat sketch. Give any four practical examples of shell structures in the world.</p>	
Q. No. 4	LAQ option: Solve any One out of Two of the following:	(15 Marks)
A.	<p>Explain need of Prefabrication and main reasons to choose prefabricated construction over conventional in situ methods. List out different prefabrication systems for construction. Give Examples of applications of Prefabrications.</p>	
B.	<p>Explain 1) Suspension bridges 2) Cable stayed bridges with neat sketches. Explain sequence of force transmission in both the cases.</p>	

----- END OF PAPER -----

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD – 402 103**

Semester Examination – End semester (winter 2019)

Branch: B. Arch (II Year Architecture)

Semester: 3rd

Subject: Building Construction Technology and Material III

Marks: 60 marks

Subject Code: AR20030003

Date: 20 / 11 / 2019

Time: 3 Hrs.

Instructions:

1. All Questions are compulsory.
2. Do not erase construction lines.
3. Draw neat and proportionate sketches with labelling wherever necessary.

(10 Marks)

Q. No. 1 Solve any Five of the following: (2 marks each)

Fill in the blanks:

- a) Natural seasoning of timber is also referred as _____ seasoning. **(2 Marks)**
- b) Manglore tiles are provided with _____ for interlocking. **(2 Marks)**
- c) To strengthen single joist timber floor for spans above 2.6 m., _____ is added. **(2 Marks)**
- d) The joint between girder and binder of triple joist timber floor is _____. **(2 Marks)**

State True or False:

- e) Radical sawing of timber is also called as flat grained sawing. **(2 Marks)**
- f) To control water quantity needed for preparing mortar/ concrete, water reducing admixtures are used with cement. **(2 Marks)**
- g) Addition of sand and crushed pottery prevents shrinkage of earthenware during drying and burning. **(2 Marks)**
- h) Neeru finished is a type of external plaster. **(2 Marks)**

Q. No. 2 Solve any Four of the following: (5 marks each)

(20 Marks)

- a) Sketch timber King Post roof truss in detail. **(5 Marks)**
- b) Sketch batten, ledged, braced and framed door with proper nomenclature. **(5 Marks)**
- c) Draw properly labelled sketches of _____ **(5 Marks)**

Studd partition
Trussed partition

- d) Write short note on timber formwork for column. (5 Marks)
- e) What is corner joint? Draw sketches of plate mitred and dovetailed housing joint. (5 Marks)
- f) What are causes of failure of paint? List defects in painting. (5 Marks)
- g) Describe manufacturing process of plywood and state its uses & sizes. (5 Marks)

Q. No. 3 Solve any One of the following:

(15 Marks)

Draw proportionate detail plan, section and joinery with specifications for:

- A. Dog legged timber stair-case for floor height of 3340mm with tread 300mm and rise 167mm. Show all supporting members and joinery details of baluster, bearer, rise & tread.
- B. Single joist timber floor on upper floor from following data –
Internal hall size – 3000 x 5000 mm
Wall thickness – 350 mm load bearing

Q. No. 4 Solve any One of the following:

(15 Marks)

- A. What are different types of paints?
Give guidelines for application of plastic emulsion paint.
- B. What is Waterproofing? Explain how it is applicable to a toilet block with sketches.

----- END OF PAPER -----

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL
UNIVERSITY, LONERE – RAIGAD – 402 103**

End Semester Winter Examination – 2019

Branch: B. Arch. (Third Year Architecture)
Subject: Building Services –III
Subject Code: Building Services-III (BA18056T)
Date: 21-11-2019

Sem: III
Marks: 60
Time: 2Hrs.

SY / TY

Instructions:

1. All Questions are compulsory.
2. Do not erase construction lines.
3. Draw neat sketches wherever necessary.
4. "Long Answer type Question (LAQ)" is a supply type question of 15 marks which requires a typical answer of about 45-60 lines in about 24-30 minutes.
5. "Short Answer type Question (SAQ)" is a supply type question of 5 marks which requires a typical answer of about 15-20 lines in about 08-10 minutes.

Q. No 1. Solve any Five out of six of the following: (2 marks each)

(Marks: 10)

- a) Dumb waiters are preferred for vertical transport in _____
- b) _____ is a the cheapest type of Air conditioning unit
- c) Escalators are used for _____ means of transport
- d) Propeller fan is installed on _____
- e) In Radiation, heat transfers by the means of _____
- f) Unit for heat is _____
- g) Unit for temperature is _____

Q.no.2. Write short notes solve any Four out of Six of the following: (5 marks each)

(Marks: 20)

- a) Explain concept of wind tower & its functioning.
- b) Explain definitions of Heat, Temperature & Humidity
- c) Explain basic Air conditioning cycle.
- d) describe what is Sensible and insensible heat
- e) What are Escalators
- f) Explain Thermal conductivity of materials (U-value, R -value)

Q. No. 3. LAQ option: Solve any One out of Two of the following

(Marks: 15)

A. Compare issues for consideration when deciding whether you should provide lift or Escalator or both

OR

B. Explain various types of lifts.

Q. 4. Option: Solve any One out of Two of the following

(Marks: 15)

A. What is human comfort? What are different means to achieve it in natural way?

OR

B. Explain the need for air change & describe how to calculate number of fans needed for effective air change

----- END OF PAPER -----

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL
UNIVERSITY, LONERE - RAIGAD -402 103
Semester Examination - Winter- 2019**

Branch: B. Arch. Second Year
Subject: - Building Services-1 (AR20030004)
Date: - 22/11/2019

Sem.: - III
Marks: 60
Time: - 3 Hr.

Instructions to the Students

1. Each question carries 12 marks.
2. Attempt any five questions of the following.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly

(Marks)

Q.1. (a) Match the following **(06)**

- | | |
|-----------------------|---------------------|
| a. Wash Basin | 1. Septic tank |
| b. Anti siphonage | 2. Ferrule |
| c. Anaerobic process | 3. Ablution fixture |
| d. Invert level | 4. Flexible joint |
| e. Waste water | 5. Vent pipe |
| f. Service connection | 6. House drainage |
| | 7. Gully trap |

Q.1. (b) Fill in the blanks **(06)**

1. Forestation plays an important role to trigger _____ in keeping water cycle active. (transpiration/ evaporation)
2. At the start of cleaning process raw water is to be passed through _____ to remove dissolved gases. (air/filter)
3. _____ is a design factor to be used for plumbing design for both water supply as well as waste water. (fixture unit/ type of fixture)
4. Water pressure and water depth are _____ proportional to each other. (directly/ inversely)
5. In a water supply scheme _____ is required to make gravity function easy. (air vent/ water flow)
6. In a septic tank, to digest the waste, _____ plays an important role by keeping air away. (scum/ effluent)

Q.2. Explain in brief with neat sketches. (Any three)

(12)

1. Grid iron system of distribution network
2. Trap in general
3. Wet venting
4. Gate valve

Q.3. Define potable water. Also explain nature of impurities in water along with general process of removal of cleaning surface water. Draw neat sketch.

(12)

OR

Q.3. Explain the types of water distribution systems, for a city, with the help of neat labelled sketches, advantages and disadvantages of each.

(12)

Q.4. Explain the following in detail. (Any two)

(12)

1. Direct and indirect system of centralized hot water supply
2. One pipe and two system of drainage
3. Down take pressure reducer valve system and break pressure tank system of water supply for a high rise structure

Q.5. Explain in brief different types of water requirements for a city. Elaborate upon various factors affecting water demand.

(12)

Q.6 (a) Describe the concept of rain water harvesting system, for a small house, with reference to the following:

1. Catchment
2. Conduit
3. Filter
4. Storage or recharge

(06)

Q.6 (b) What is active solar water heating system? Explain with the help of the following points: -

- a. neat sketches
- b. the process and application involved
- c. advantages and disadvantages

(06)

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVER-
SITY, LONERE - RAIGAD -402 103
End Semester Winter Examination - November - 2019

Branch: B.Arch

Subject:- Culture and Built Form-V, (BA18057T)

Date: 23/11/19

Sem.:- V

Marks: 60

Time:- 3 Hr.

Instructions to the Students

1. Each question carries 12 marks.
2. Attempt **any five** questions of the following.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly

SY/TY

Q.1. Fill in the blanks with appropriate word.

(Marks)
(6x2)12 M

- a) The layout of _____ Delhi was governed by three major visual corridors.
- b) The British arrived in 1615 by overthrowing the _____ Empire.
- c) Romantic Artist emphasized and Celebrated _____ in their Art.
- d) Industrial revolution started in _____.
- e) The Crystal palace is Designed by _____.
- f) Art and Craft movement began in _____.

Q.2. Solve any three questions.

(3x4)12 M

- A) Development of New art and Architecture in Details.
- B) Difference between Art Deco and Art Nouveau.
- C) Inventions of Steel and its Impact on Architecture.
- D) Why did Industrial revolutions began in England?

Q.3. Solve any two questions

(2x6)12 M

- A) Explain any two Ism's
- B) Work of Modern Architects.
- C) Any one International Style's.

Q.4. What is the approach of planning of New Delhi explain with examples in detail.

(12)M

Q.5. Describe at least three developments of the Industrial revolutions.

(12)M

Q.6. Explain the indo-saracenic era with the example of any one of them in details
a) townhalls, b) CST, c) museum ?

(12)M

The End

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL
UNIVERSITY, LONERE - RAIGAD -402 103
END Semester Winter Examinations 2019**

Branch: B. Arch (Second Year)

Semester: - III

Subject: - History of Architecture-III (AR2003005)

Date: 25/11/19

Time: - 3 Hr.

Marks: 60

Instructions to the Students

1. Each question carries 12 marks.
2. Question 1 and 2 are compulsory.
2. Attempt ANY TWO questions out of the remaining.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.

Q.1. A Fill in the blanks

(8 Marks)

1. The walls of _____ are inordinately thick and slope like those of a castle..
(*Jahaz mahal , Hindola mahal , Taj mahal*)
2. _____ built on the facade to accentuate entrances are a common feature of Jaunpur style.
(*Pylons, Vaults, Domes*)
3. The major influences seen in the Mughal style come from Persia and from the indigenous styles of Gujarat and _____.
(*Malwa, Bengal, Rajasthan*)
4. Walls of the Siddi Sayyid mosque are composed entirely of perforated stone _____ which have given the building a worldwide reputation.
(*Jaalis, Minars , Pylons*)
5. The Topkapi palace is a fine example of _____ style
(*Timurid , Mughal , Ottoman*)
6. _____ was designed by Donato Bramante.
(*Tempietto, Pazzi chapel, Villa vigenza*)
7. Humayun's tomb is placed in the middle of _____ Garden
(*Japanese, Chinese, Mughal*)
1. The Madrassa of _____ in Bidar ,was an Islamic college, built in the same architectural style as that of Persian university buildings.
(*Mahmud Gawan, Ibrahim Khan, Suleman*)

Q. 1. B. MATCH THE FOLLOWING

(4 Marks)

1. Colonial style
2. Vijaynagar style
3. Deccan style
4. America

- a) Machu Pichu
- b) Chatrapati Shivaji Terminus
- c) Hampi
- d) Ali Barid's Tomb

Q.2. Write a short note on the following (Any 4)

(6m x4=24 marks)

1. Grand Bazaar, Istanbul
2. Tomb of Ghiyasuddin Tughlaq
3. Describe the salient features of Panch Mahal
4. Write in short about the tomb of Sikandar Lodhi.
5. Explain Ottoman Architecture with an example
6. Siddi Sayyid mosque with appropriate sketches.

Q.3. Answer the following in short (Any Two)

(12 Marks)

1. Explain architecture in Samarkand with the help of suitable example
2. Write a note about Forbidden City
3. Describe architecture of Meenakshi Temple, Madurai.

Q.4. Answer the following (Long Answer any 1)

(12 Marks)

1. Explain in detail all the features of Gol Gumbad, Bijapur with appropriate sketches
2. Describe the town planning of Fatehpur Sikri with reference to the monuments inside the complex

Q.5. Answer the following (Long Answer any 1)

(12 Marks)

1. Write in detail about the Saint Peter's Basilica in detail with reference to the contribution of the major Architects in its design. Draw appropriate sketches
2. Describe salient features of Humayun's tomb with appropriate sketches

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD -402 103
END Semester Winter Examinations 2019

Branch: B. Arch (Second Year)

Semester: - IV

Subject: - Building Services-II (AR20040004)

Date: 25/11/19

Time: - 3 Hr.

Marks: 60

Instructions to the Students

1. Each question carries 12 marks.
2. Attempt any 5 question of the following.
3. Illustrate your answers with diagrams where necessary.

sy / ty

Q1. Write short note on any four:

(12)

- a) Substation grounding
- b) Conduit wiring system
- c) Luminous intensity
- d) Distribution substation
- e) Circuit protective devices

Q2. Explain:

- a) High side electrical system at site level (transformer and switchgear). Explain with the help of layout of substation. **(6)**
- b) Modern theory of light and color. Also explain necessity of illumination. **(6)**

Q3. Explain:

- a) Incandescence, luminescence and fluorescence. **(6)**
- b) Planning of electrical wiring work. Also explain batten wood wiring system. **(6)**

Q4. Write short note on any four:

(12)

- a) HVAC
- b) Vapor compression system
- c) Heat recovery system
- d) Acoustics
- e) Combined gas law

Q5. Explain:

- a) Types of elevators, escalators and auto-walks. Explain factors guiding their placements and layout in a building envelope. **(6)**
- b) Explain air distribution with the help of air behavior, location of supply devices, duct system and materials used for the same. **(6)**

Q6. Explain:

- a) What is Human comfort? What are its different factors? Describe significance of each factor. **(6)**
- b) State and explain the components of mechanical vapor compression refrigeration system. **(6)**

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE -
RAIGAD -402 103
Winter End Sem. Examination -Nov.- 2019

Branch: B. Arch (Second Year Architecture)

Semester: - IV

Subject: - History of Architecture-IV (AR20040005)

Date: Nov 2019

Time: - 3 Hr.

Marks: 60

Instructions to the Students

1. Each question carries 12 marks.
2. Question 1 and 2 are compulsory.
2. Attempt **ANY TWO** questions out of the remaining.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.

SY / TY

Q.1. Explain the following in short (any 2)

(8 Marks)

1. Architecture of the Louvre ,Paris
2. Palladio's Works
3. Characteristics of Gothic architecture
4. Byzantine domes

Q. 1. B. MATCH THE FOLLOWING

(4 Marks)

- | | |
|----------------|--------------------|
| 1. Romanasque | a)Louvre |
| 2. Byzantine | b)Milan cathedral |
| 3. Renaissance | c)Durham Cathedral |
| 4. Gothic | d)Hagia Sofia |

Q.2. Write a short note on the following (Any 4)

(6m x4=24 marks)

1. Early Christian Architecture
2. St. Michele
3. Baroque style
4. St.Lorenzo
5. French Romanasque
6. Michaelangelo

Q.3. Answer the following in short (Any Two)

(12 Marks)

1. Explain the architecture in Milan Cathedral

2. Write a note about Gothic architecture in France. Give suitable examples
3. Describe architecture of Abbey aux Hommes, France

Q.4. Answer the following (Long Answer any 1)

(12 Marks)

1. Explain in detail all the features of Gothic Architecture in the British Isles with appropriate sketches
2. Write in detail about the Saint Peter's Basilica in detail with reference to the contribution of the major Architects in its design. Draw appropriate sketches

5. Answer the following (Long Answer any 1)

(12 Marks)

1. Describe the Romanesque architecture in Italy with reference to Pisa cathedral complex
2. Write in Detail about the Byzantine architecture. Give suitable example with sketches

Paper End

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD -402 103**

End Semester Winter Examination – Nov - 2019

Branch: B.Arch. (2nd Year)

Subject: Architecture Design-IV (AR20040001)

Date:- 27/11/19

Sem.:- IV

Marks: 60

Time:- 6 Hours

Instructions to the Students

- I) The candidates are instructed to submit initial sketches along with site plan, floor plans, elevations and sections of their design at the end of day session.
- II) The candidate should submit their designs in proper portfolio format.
- III) The design will be valued as a whole.

GIRLS HOSTEL

A private owner wants to develop a girls' hostel at the plot, located nearby to an educational campus in CIDCO, Aurangabad. This is going to be a small scale private hostel and it shall accommodate maximum 30 number of girls.

The site is located in N-6 CIDCO, Aurangabad, and surrounding areas of this proposed site comprised of several other private hostel hence the owner is expecting it to be with notable elevations. Also, he is expecting this hostel should be designed in such a way that it will offer safe, decent and pleasant environment to the residents.

In addition, it shall have adequate facility for guests, dining hall, reading hall, small recreation space etc. The following are the design requirements:

- 1) Entrance hall with reception/enquiry - 30-35 Sq. M.
- 2) Sufficient waiting area for visitors with common toilets (Ladies and Gents)
- 3) Hostel Warden's office with attached toilet - 12-15 Sq. M.
- 4) Guest rooms for relatives with attached toilet, 02 in number - 12-15 Sq. M. (each)
- 5) Sick room with attached toilet – 01 in number - 12- 15 Sq. M.
- 6) Single room with attached toilet maximum 02 in number -10-12 Sq. M (each)
- 7) Double sharing rooms with common toilets minimum 14 in number – 20 -22 Sq. M (each)
- 8) T. V. room cum multipurpose room to accommodate 25 people - 25-30 Sq. M.
- 9) Dining hall for 30 people - 60 Sq. M.
- 10) Kitchen, store, pot-wash, staff toilets - 30 – 40 Sq. M.

A separate parking area for two wheelers and four wheelers for residents, staff and visitors should be provided. Outdoor spaces for small games/gatherings along with landscape to be developed.

The following are the design requirements and site details:

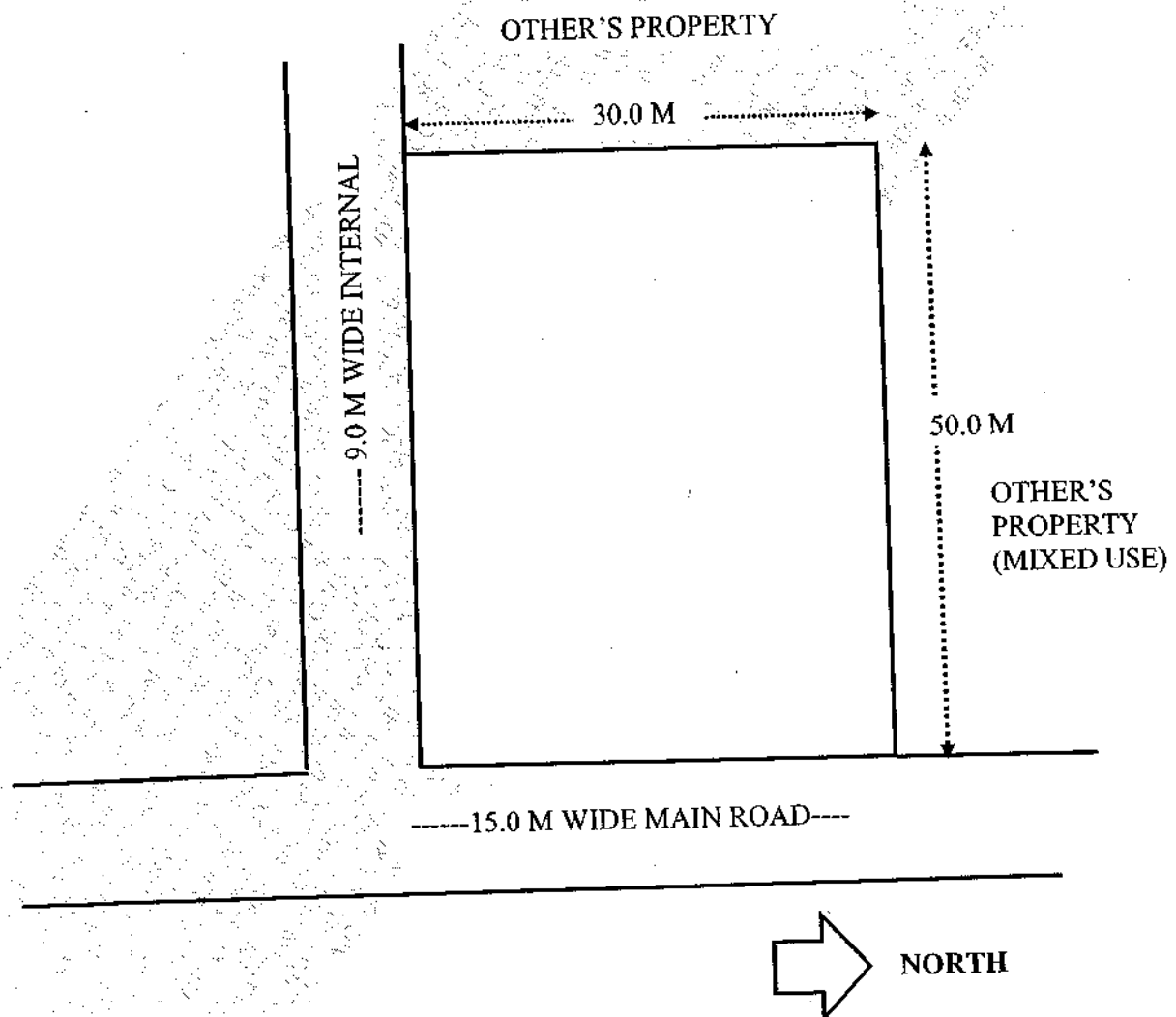
Plot area – $30.0 \times 50.0 = 1500$ Sq. M.

Side margin on south and east side is 6.0 M and to north and west side it is 4.5 M.

Minimum drawing requirements:

- 1) Site plan with landscaping etc.
- 2) All floor plans
- 3) Two elevations
- 4) Two Sections
- 5) Perspective View (sketched)

- 1:200
- 1:100
- 1:100
- 1:100



29/11/19

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE -
RAIGAD -402 103
Winter End Sem. Examination -Nov.- 2019

Branch: B. Arch (Second Year Architecture)

Semester: - IV

Subject: - History of Architecture-IV (AR20040005)

Date: Nov 2019

Time: - 3 Hr.

Marks: 60

Instructions to the Students

1. Each question carries 12 marks.
2. Question 1 and 2 are compulsory.
2. Attempt ANY TWO questions out of the remaining.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.

SY / HY

Q.1. Explain the following in short (any 2)

(8 Marks)

1. Architecture of the Louvre ,Paris
2. Palladio's Works
3. Characteristics of Gothic architecture
4. Byzantine domes

Q. 1. B. MATCH THE FOLLOWING

(4 Marks)

- | | |
|----------------|--------------------|
| 1. Romanasque | a)Louvre |
| 2. Byzantine | b)Milan cathedral |
| 3. Renaissance | c)Durham Cathedral |
| 4. Gothic | d)Hagia Sofia |

Q.2. Write a short note on the following (Any 4)

(6m x4=24 marks)

1. Early Christian Architecture
2. St. Michele
3. Baroque style
4. St.Lorenzo
5. French Romanasque
6. Michaelangelo

Q.3. Answer the following in short (Any Two)

(12 Marks)

1. Explain the architecture in Milan Cathedral

2. Write a note about Gothic architecture in France. Give suitable examples
3. Describe architecture of Abbey aux Hommes, France

Q.4. Answer the following (Long Answer any 1)

(12 Marks)

1. Explain in detail all the features of Gothic Architecture in the British Isles with appropriate sketches
2. Write in detail about the Saint Peter's Basilica in detail with reference to the contribution of the major Architects in its design. Draw appropriate sketches

5. Answer the following (Long Answer any 1)

(12 Marks)

1. Describe the Romanesque architecture in Italy with reference to Pisa cathedral complex
2. Write in Detail about the Byzantine architecture. Give suitable example with sketches

Paper End

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD -402 103
End Semester Winter Examination –Nov- 2019**

Branch: B.Arch	Sem.: - IV
Subject:- Theory of structures III (AR20040006)	Marks: 60
Date: -30/11/2019	Time: - 3 Hrs.

Instructions: -

1. Assume suitable data if necessary
2. Use of Non Programmable calculator is allowed
3. Figures to the right indicate full marks

SY / TY

Q1] Define in One Line : (any 4)

20mks

- a) Statically Indeterminate Structures
- b) Load Bearing structure
- c) Riveting
- d) Buckling of column
- e) Hinged Arches

Q2] Answer any four questions (4 x 10mks)

40mks

- a) State and explain Rankine's Theory
- b) State the assumptions in working stress method
- c) A steel rod 5m long and 40mm diameter is used as a column with one end fixed and other hinged. Determine the critical load the column can carry by using Euler's Formula.
Take $E = 2 \times 10^5 \text{ N/mm}^2$
- d) Explain in brief connections in structural steel
- e) List the loads acting on the structures, and explain any two in detail.
- f) Explain the concept of continuity over supports for a continuous beam.
- g) What are the different steel sections available and their applications
- h) A tie member of a roof truss consists of 2 ISA 100x75x8 mm. The angles are connected to either side of a 10 mm gusset plates and the member is subjected to a working pull of 300 kN. Design the welded connection.

BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,

LONERE – RAIGAD – 402 103

Semester supplementary Winter Exam – Dec. – 2019

Branch: B. Arch (First Year Architecture) :
Subject: Architectural Design II (AR10200001)
Date: 09/12/2019

Semester II
Marks: 50
Time: 6 Hrs.

Residence for landscape photographer at Alibagh.

Landscape photography shows spaces within the world, sometimes vast and unending, but other times microscopic. Landscape photographs typically capture the presence of nature but can also focus on man-made features or disturbances of landscapes. Landscape photography is done for a variety of reasons. Perhaps the most common is to recall a personal observation or experience while in the outdoors, especially when traveling.

Students need to design Residence and studio for landscape photography artist at Alibagh, her passion of landscape photography itself represents the way she lives her life. Design of artist residence should respond to its required function. Responding to the context and local language will make this house more cohesive.

Design Requirements

Sr.no.	Requirements	
1	Lobby Space.	Adequate
2	Artist office (Attached Toilet).	15 sq. mt.
4.	Demonstration area with attached photographs processing room.	30 sq. mt
5.	Living room.	20 sq. mt.
6.	Kitchen + dinning.	25 sq. mt.
7.	Common toilet	Adequate
8.	Master bed with attached toilet.	25 sq. mt.
9.	Guest bedroom with attached toilet.	20 sq. mt.
10.	Parking for 2 four wheelers, and 2 two wheelers	Adequate
11.	visitors Parking 2 four wheelers, and 5 -2w	Adequate

Mandatory Drawings Requirements

1. Concept/Thought Process
2. Site plan - 1:100
3. Floor plans - 1:50
4. Elevation (min.1) - 1:50
5. Section(min.1) - 1:50

6. Proportionate 3d Sketches –

Note : 1. Suitable rendering and neat drawings will carry 10% marks

2. Tracing required for rough work on design should be submitted along with answer sheet

