

**VINAYAKA MISSIONS UNIVERSITY, SALEM
(Deemed to be University)**

B.Arch- DEGREE EXAMINATIONS – FEB-2022

Ninth Semester

CONSTRUCTION MANAGEMENT

(Candidates admitted under 2012 Regulation-CBCS)

Time: Three hours

Maximum:100Marks

Answer **ALL** questions

PART – A (10 x 2 = 20 marks)

1. Define Preservation.
2. What is architectural conservation?
3. What are the objectives of conservation?
4. What is museum conservation?
5. What are the tools used to conservation procedures.
6. What is retrofit in buildings?
7. How monuments are classified?
8. What is historic intergrity?
9. What are issues historic towns face and factors influence the deterioration?
10. What are the financial incentives of conservation?

PART – B (5 x 16 = 80 marks)

11. a) Explain the types of heritage and the need and purpose for heritage conservation.

OR

- b) Explain in detail about urban conservation.

12. a) Explain briefly about behaviour of historic materials and structures.

OR

- b) What are the guidelines for preservation?

13. a) Explain the role of architects in conservation.

OR

- b) Explain Listing in conservation in detail.

14. a) Explain what is conservation and the needs, principles, ethics and importance for the same.

OR

- b) Explain in detail about Central and state government policies and legislations in conservation.

- 15.a) Explain in detail about Behaviour of historic materials and structures in monuments with a case study.

OR

- b) Explain in detail about heritage site management, objectives and procedures with a case study example.

**VINAYAKA MISSIONS RESEARCH FOUNDATION
(Deemed to be University)**

B.Arch- DEGREE EXAMINATIONS – FEB-2022

Ninth Semester

ELECTIVE - URBAN DESIGN

(Candidates admitted under 2012 Regulation-CBCS)

Time: Three hours

Maximum:100Marks

Answer **ALL** questions

PART – A (10 x 2 = 20 marks)

1. Write down the importance of Urban Design.
2. Compare city planning and Urban Design.
3. Write short note on Urban Landuse.
4. Write short note on CBD.
5. What is image of a city.
6. How the Urban edges are determined?
7. Define Urban Spaces.
8. Write down the elements of town scape.
9. Write down few Techniques adopted for Urban Design.
10. Write short note on Growth Foci.

PART – B (5 x 16 = 80 marks)

11. a) Explain in detail about Urban Design and city planning as a comparative analysis.
OR
b) Explain in detail about the relationship between Architecture and Urban Design.
12. a) Explain in detail the Role played by the population density in Urban Land use pattern.
OR
b) Write in detail the problems faced in Urban setup.
13. a) Explain with neat sketches about the “IMAGE OF THE CITY”.
OR
b) Write in detail about the role of an Urban designer on Urban Area.
14. a) Explain the Role of Elements of Town scape in Urban Design.
OR
b) What is decentralization in Urban Design and explain with a local case study.
15. a) Write down in detail with neat sketches about the Kevin Lynch’s contribution towards Urban Design.
OR
b) Write in detail about the importance of Urban Conservation and the policies adopted in that.

VINAYAKA MISSIONS RESEARCH FOUNDATION**(Deemed to be University)****B.Arch- DEGREE EXAMINATIONS – FEB-2022****Tenth Semester****ELECTIVE - URBAN DESIGN**

(Candidates admitted under 2012 Regulation-CBCS)

Time: Three hours

Maximum:100Marks

Answer **ALL** questions**PART – A (10 x 2 = 20 marks)**

1. Write down few significant need of Urban Design.
2. Write short notes on the scope of Urban Design.
3. Write short note on Urban Landuse.
4. What is the Relationship between population density and Urban landuse?
5. What is image of a city?
6. How the Urban edges are determined?
7. Define Urban Spaces.
8. Write the role of Urban open space.
9. Write down few Techniques adopted for Urban Design.
10. Write short note on Growth Pole.

PART – B (5 x 16 = 80 marks)

11. a) Explain in detail about Urban Design and city planning as a comparative analysis.
OR
b) Explain in detail about the relationship between Architecture and Urban Design.
12. a) Explain in detail about CBD and its Role in Urban setup.
OR
b) Write in detail the problems faced in Urban setup
13. a) Explain in detail the Role of Urban Design Elements.
OR
b) Write in detail about Kevin Lynch's vision on Urban Environment.
14. a) Explain with neat sketches about any two important Urban activity spaces.
OR
b) Write in detail about the Role of infrastructures in Urban Setup.
15. a) Write down in detail with neat sketches about the Kevin Lynch's contribution towards Urban Design.
OR
b) Why do you need Urban Renewal and its impact on Urban Areas. Explain with a case study of any known place to you.

**VINAYAKA MISSIONS RESEARCH FOUNDATION
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B.Arch- DEGREE EXAMINATIONS – FEB-2022

Ninth Semester

HUMAN SETTLEMENTS

(Candidates admitted under 2012 Regulation-CBCS)

Time: Three hours

Maximum:100Marks

Answer **ALL** questions

PART – A (10 x 2 = 20 marks)

1. Explain the growth factors of settlement.
2. Discuss in detail about the growth mechanisms of a settlement.
3. Name the science of human settlement and explain in detail.
4. Write about the EKISTICS elements.
5. Write short notes on structure plan.
6. Traffic and transportation and its influence over the settlement.
7. Give a short notes on IUDP.
8. Write down the concept of Megacity.
9. Write the difference between rural planning and micro level planning.
10. Write down the scope of Micro level Planning.

PART – B (5 x 16 = 80 marks)

11. a) Settlements (vs.) water sources

OR

- b) Write in detail about the Society and its development in different fields

12. a) Explain the term 'POLIS'.

OR

- b) Write the different types of plans prepared for the human settlement planning – explain in detail any one of them.

13. a) Explain with sketches about the growth factors of a human settlement.

OR

- b) Write in detail about various types of plans.

14. a) Explain "IUDP" "IDSMT" related to human settlement planning.

OR

- b) Discuss in detail about IDSMT.

15. a) Demographic dynamics and its influence over the human settlement.

OR

- b) Explain the scope and context of micro level planning.

VINAYAKA MISSIONS RESEARCH FOUNDATION**(Deemed to be University)****B.Arch- DEGREE EXAMINATIONS – FEB-2022****Tenth Semester****ELECTIVE - ENERGY AND ENVIRONMENTAL CONCERNS IN
DESIGN**

(Candidates admitted under 2012 Regulation-CBCS)

Time: Three hours

Maximum:100Marks

Answer **ALL** questions**PART – A (10 x 2 = 20 marks)**

1. What are the design elements which directly effect the thermal comforts of building.
2. What is energy efficient architecture?
3. What is micro climate?
4. Define – Evaporation.
5. What is wind brakes?
6. What are the louvers?
7. Explain GREEN BUILDINGS.
8. Sketch TERRACE GARDEN.
9. Explain ZEN DESIGN
10. What is ENERGY EFFICIENT ARCHITECTURE?

PART – B (5 x 16 = 80 marks)

11. a) Design a Energy Efficient Residential building with sketches for 4 people which is facing in South direction.
OR
b) Design a Energy Efficient Residence which is facing a Water body in the SW direction.
12. a) Explain with sketches how passive cooling techniques used in building can be energy efficient architecture.
OR
b) Explain with sketches how courtyard can be used in modern buildings to get better living comfort.
13. a) Explain with sketch how different design elements used in traditional Indian architecture which has given better living comfort without artificial energy.
OR
b) Explain ENERGY EFFICIENCY in LE CORBUSIERS Architecture.
14. a) How are COURTYARDS implemented in MODERN BUILDINGS and its advantages.

(p.t.o)

OR

b) Use of CLIMATOLOGY in Design and its Advantages.

15.a) What is SOLAR PASSIVE TECHNIQUES.

OR

b) Role of Direction in ENERGY EFFICIENCY Architecture.

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**VINAYAKA MISSIONS RESEARCH FOUNDATION
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B.Arch- DEGREE EXAMINATIONS – FEB-2022

Ninth Semester

CONSTRUCTION MANAGEMENT

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Time: Three hours

Maximum:100Marks

Answer **ALL** questions

PART – A (10 x 2 = 20 marks)

1. Define controlling in a project.
2. Define Milestone chart.
3. Define critical path of a project.
4. Define interference float.
5. Define the term “PERT “and “CPM”
6. State any two basic difference between PERT and CPM.
7. What is mean by a Manageable task?
8. What do you mean by ‘cost estimating’ and ‘cost budgeting’?
9. State the needs of ‘ resource leveling’.
10. Define cost slope.

PART – B (5 x 16 = 80 marks)

11. a) Discuss bar charts and mile stone charts.

OR

- b) State and explain the four approches that are providing a useful groundwork in current practice of project management.

12. a) Calculate the earliest start, earliest finish, latest start and latest finish of each activity of the project given below and determine the critical path of the project

| Activity | 1-2 | 1-3 | 1-5 | 2-3 | 2-4 | 3-4 | 3-5 | 3-6 | 4-6 | 5-6 |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Duration(in weeks) | 8 | 7 | 12 | 4 | 10 | 3 | 5 | 10 | 7 | 4 |

OR

- b) Calculate the earliest start, earliest finish, latest start and latest finish of each activity of the project given below and determine the critical path of the project

| Activity | 1-2 | 1-3 | 2-4 | 3-4 | 3-5 | 4-5 | 4-6 | 5-6 |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Duration(in weeks) | 6 | 5 | 10 | 3 | 4 | 6 | 2 | 9 |

(P.T.O)

13. a) The following table indicates the details of a project. The durations are in days. 'a' refers to optimistic time, 'm' refers to most likely time and 'b' refers to pessimistic time duration.

- Draw the network.
- Find the critical path.
- Determine the expected standard deviation of the completion time.

| Activity | (a) t_0 | (m) t_m | (b) t_p |
|----------|-----------|-----------|-----------|
| 1-2 | 2 | 4 | 5 |
| 1-3 | 3 | 4 | 6 |
| 1-4 | 4 | 5 | 6 |
| 2-4 | 8 | 9 | 11 |
| 2-5 | 6 | 8 | 12 |
| 3-5 | 2 | 3 | 4 |
| 4-5 | 2 | 5 | 7 |

OR

b) Construct the network for the project whose activities and the three time estimates of these activities (in days) are given below.

- Draw the network.
- What is the probability that the project will be completed in 27 days?

| Activity | t_0 | t_m | t_p |
|----------|-------|-------|-------|
| 1-2 | 3 | 6 | 15 |
| 2-3 | 2 | 5 | 14 |
| 1-4 | 6 | 12 | 30 |
| 2-5 | 2 | 5 | 8 |
| 2-6 | 5 | 11 | 17 |
| 3-6 | 3 | 6 | 15 |
| 4-7 | 3 | 9 | 27 |
| 5-7 | 1 | 4 | 7 |
| 6-7 | 2 | 5 | 8 |

14. a) The following data is pertaining to a project with normal time and crash time.

| Jobs | Normal | | Crash | |
|------|--------|------|-------|------|
| | Time | Cost | Time | Cost |
| 1-2 | 8 | 100 | 6 | 200 |
| 1-3 | 4 | 150 | 2 | 350 |
| 2-4 | 2 | 50 | 1 | 90 |
| 2-5 | 10 | 100 | 5 | 400 |
| 3-4 | 5 | 100 | 1 | 200 |
| 4-5 | 3 | 80 | 1 | 100 |

- If the indirect cost is Rs.100 per day find the least cost schedule(optimum duration)
- What is the minimum duration?

OR

(P.T.O)
Sl.No.B.5080

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b) Classify and explain the risks in construction projects and what are the effects of risks in the organization?

15.a) Explain the types of organizations in project management with two examples one representing an owner organization and the other representing the organization of a construction management consultant

OR

b) Briefly detail the Interpersonal behaviour in Project organizations.

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**VINAYAKA MISSIONS RESEARCH FOUNDATION
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B.Arch- DEGREE EXAMINATIONS – FEB-2022

Tenth Semester

PROFESSIONAL PRACTICE - II

(Candidates admitted under 2012 Regulation-CBCS)

Time: Three hours

Maximum:100 Marks

Answer **ALL** questions

PART – A (10 x 2 = 20 marks)

1. List out the advantages of working in a well established firm.
2. What is Office management?
3. Brief the duties of the Assessors or the Senior Assessors.
4. Define single stage competitions.
5. Write about Samples and Shop drawings.
6. Write about Access for the Architect to the works.
7. Define the term Mediation.
8. Define the types of Arbitrator.
9. Define the term Dominant Heritage.
10. What are Continuous Easements?

PART – B (5 x 16 = 80 marks)

11. a) What are the important aspects of practice and administration functions of the Chief Architect? What aspects are to be analyzed and answered by the architect himself regarding the office management.

OR

- b) An Architect is a 'Master Manager' – discuss and explain the factors responsible for mismanagement and its effects. Also state the Objectives to be kept while applying the principles of management.

12. a) List out the types of Architectural competitions and explain them all.

OR

- b) Write about the setting up of board of assessors.

13. a) Write about Certificates and Payments as described under conditions of Contract.

OR

- b) Write about Loss and expense caused by disturbance of regular progress of the works as described under conditions of Contract.

14. a) What are the kinds of Arbitration & explain them. Also explain the advantages of settling the disputes and differences by Arbitration.

OR

- b) Explain i) Arbitration agreement or Submission and ii) Order of Reference. Also tabulate the difference between the above two.

- 15.a) What are the modes of Acquiring Easements and discuss them in detail?

OR

- b) Write about Easement of Support.

**VINAYAKA MISSIONS RESEARCH FOUNDATION
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B.Arch- DEGREE EXAMINATIONS – FEB-2022

Ninth Semester

ELECTIVE II - HOUSING

(Candidates admitted under 2012 Regulation-CBCS)

Time: Three hours

Maximum:100Marks

Answer **ALL** questions

PART – A (10 x 2 = 20 marks)

1. Write short note on qualitative analysis of housing.
2. Write down few problems in the field of housing.
3. Write short note on Urban Housing.
4. Write short note on urban housing issues.
5. How to overcome the housing deficit?
6. Write down few housing policies
7. Definition of slum.
8. Write down the attempts taken to solve the problems of slum.
9. Write short note on housing issues.
10. Write down few housing policies.

PART – B (5 x 16 = 80 marks)

11. a) Explain in detail about the qualitative analysis of housing in India.
OR
b) Discuss in detail the status and the statistical datas of housing issues in India.
12. a) Explain in detail about the nature of housing development in urban areas.
OR
b) Write in detail about the interaction of housing related to other land uses.
13. a) Mention few public sector of housing and their role in urban housing – Discuss.
OR
b) The impact of high raised housing in Urban areas – Discuss.
14. a) Discuss in detail about the low cost construction materials and its application in Urban housing.
OR
b) Write down in detail about the interaction of residential land use with other land uses.
15. a) Write in detail about the role of housing board.
OR
b) Write down the low cost housing construction techniques and the material adopted in detail.
