

B.Arch -VII-11.17-1692

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B

B.Arch. Degree VII Semester Examination November 2017

AR 1702 URBAN DESIGN
(2014 Scheme)

Time : 3 Hours

Maximum Marks : 100

PART A

(Answer **ALL** questions)

(8 × 5 = 40)

- I. Write short notes on the following.
- Elements of urban design
 - Grain and texture.
 - Urban massing and scale.
 - Perception of urban environment.
 - Skyline studies in urban design.
 - Urban spaces and its linkages.
 - Urban renewal.
 - Road pattern and hierarchy.

PART B

(4 × 15 = 60)

- II. Distinguish between architecture, urban design and urban planning.
OR
- III. Elaborate briefly on the evolution of urban design as a discipline.
- IV. Discuss briefly on the principles of urban spatial organizations.
OR
- V. Explain the elements of imageability using live city examples.
- VI. Discuss briefly about various urban design survey methods and techniques.
OR
- VII. Write briefly on the urban design theories put forwarded by Kevin Lynch and Christopher Alexander.
- VIII. Discuss about the urban conservation and economic considerations for heritage management.
OR
- IX. Write briefly on the current scenario of waterfront developments in the light of Indian cities.

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B.Arch. Degree VII Semester Examination November 2017

AR 1703 HOUSING (2014 Scheme)

Time : 3 Hours

Maximum Marks : 100

PART A (Answer ALL questions)

(8 × 5 = 40)

- I. Write short note on the following.
- Nature of housing problem in urban India.
 - Housing initiatives under 6th five year plan.
 - Urban and rural settlement pattern.
 - Factors affecting the formation of slums.
 - NGO led house construction.
 - Indira Awas Yojana.
 - Affordable housing.
 - National Housing Bank.

PART B

(4 × 15 = 60)

- II. Describe the role of housing in the socio economic development of a country
- OR**
- III. Discuss the approach to housing under various five year plans.
- IV. Compared to other states in India, Kerala is in a better position with regard to housing stock, discuss.
- OR**
- V. Explain the process of formation of slums and discuss various schemes for improvement of quality of life in slums.
- VI. Discuss the role of PMAY and LIFE mission in achieving the objective of housing for all in the state of Kerala.
- OR**
- VII. Compare the features of National Housing Policy 1994 and National Urban and Housing Policy (draft) 2015.
- VIII. Describe the role of housing financing agencies in taking care of housing needs? Discuss about two major financing institutions in India.
- OR**
- IX. Elaborate on housing finance mechanism existing in India and describe two major schemes introduced by Government of India for housing finance of Economically Weaker Sections.

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AR 1704 INTERIOR DESIGN (2014 Scheme)

Time : 4 Hours

Maximum Marks : 100

(Use Illustrations wherever *required*. Illustrations carry due credits)

PART A

(Answer *ALL* questions)

(8 × 5 = 40)

I. Write short notes on the following.

- (a) Quantitative and Qualitative study of space in interior design.
- (b) False ceiling.
- (c) Principles of visual composition.
- (d) Use and impact of color in interior spaces.
- (e) Office furniture.
- (f) Color schemes.
- (g) Interior plantscaping.
- (h) Sculpture in interior.

PART B

(1 × 60 = 60)

II. Design the interior of a Teen Girl's Bedroom of age 15 years. The room space is 30 sq.m, which should accommodate the following:- Sleeping space, study space and hobby area.

Assume data wherever necessary. Specify all materials being used, with dimensions.

Requirements:

- (a) Detailed plan of the interior - 1 : 20 scale. (30)
- (b) Sectional interior perspective giving maximum details - 1 : 20 scale. (20)
- (c) Furniture design for the room. (10)

The design scheme should also include floor and ceiling design.

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AR 1705 DESIGN ASPECTS OF EARTH QUAKE RESISTANT STRUCTURES (2014 Scheme)

Time : 3 Hours

Maximum Marks : 100

PART A (Answer *ALL* questions)

(8 × 5 = 40)

- I. (a) Major aspects and objectives involved in Seismic-Resistant building Architecture.
- (b) Effects of building's characteristics on its seismic performance.
- (c) Equivalent static analysis of structure subjected to seismic action.
- (d) Advantages and disadvantages of Response Spectrum method.
- (e) Impact of Ductility and its significance.
- (f) Ductility factor and various factors affecting ductility.
- (g) Merits and demerits of seismic isolation, also its applications.
- (h) Feasibility study on seismic isolation and its configuration.

PART B

(4 × 15 = 60)

- II. Explain lateral load resisting system with neat figure, also discuss the significance of term R.
- OR**
- III. How is the structural performance affected by the quality of construction and materials? Explain.
 - IV. What are the different methods of analysis performed to obtain the design seismic forces? Explain any two in detail.
- OR**
- V. Briefly explain Dynamic time history analysis of structures subjected to seismic action and discuss its significance.
 - VI. Describe and explain the requirements and assessment of ductility considerations in earthquake resistant design of RCC building.
- OR**
- VII. Explain ductile detailing considerations of flexural member as per IS 13920-1993.
 - VIII. Explain base isolation of structures, its considerations and design principle.
- OR**
- IX. Explain seismic isolation configuration with neat sketch.

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AR 1706 (a) SUSTAINABLE ARCHITECTURE
(2014 Scheme)

Time: 3 Hours

Maximum Marks: 100

PART A
(Answer *ALL* questions)

(8 × 5 = 40)

- I. Write short notes on the following.
- Carrying capacity.
 - Bruntland Report.
 - Bio mimicry.
 - Renewable and non-renewable energy.
 - LEED.
 - BREEAM.
 - Climate of the cities.
 - Sustainable communities.

PART B

(4 × 15 = 60)

- II. Describe briefly the various causes of climate change. Explain how sustainability concepts can mitigate the problem of climate change.
- OR**
- III. Explain the principles of sustainable development and its relevance in the present context.
- OR**
- IV. Explain what is Embodied energy and Life Cycle Analysis (LCA).
- OR**
- V. Low impact construction techniques, selection of eco building materials and eco friendly design principles are the factors to achieve eco architecture. Describe this with examples.
- OR**
- VI. Explain the concept of Green building. Describe why rating system is important in Green buildings.
- OR**
- VII. What is GRIHA? Explain the various criteria of GRIHA rating.
- OR**
- VIII. Urban ecology is the interdisciplinary study of urban ecosystems. Explain.
- OR**
- IX. Explain what is urban heat island. What are its impacts?

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B.Arch. Degree VII Semester Examination November 2017**AR 1707 (a) RESEARCH METHODOLOGY AND STATISTICS**
(2014 Scheme)

Time: 3 Hours

Maximum Marks: 100

PART A
(Answer *ALL* questions)

(8 × 5 = 40)

- I. Write short notes on the following:
- Research proposal.
 - Paradigms of qualitative research.
 - Nominal and ordinal scale.
 - Discrete and continuous variable.
 - Referencing and bibliography.
 - Technical and creative writing.
 - Behavioural research.
 - Questionnaire survey and field survey.

PART B

(4 × 15 = 60)

- II. Describe the various steps involved in formulating a research problem and setting research objectives.
- OR**
- III. State the purpose of undertaking literature review in research. What are the various sources of literature?
- IV. What do you mean by hypothesis and how to test a hypothesis? Explain the types of errors in testing a hypothesis.
- OR**
- V. Differentiate descriptive and inferential statistics. Explain, in detail, the characteristics of each.
- VI. Explain the various processes of technical writing and how important is report writing skills in research.
- OR**
- VII. List the basic characteristics of popular report, technical report, research report and research article. Explain structure of Technical report in detail.
- VIII. Differentiate between obtrusive and unobtrusive methods of research.
- OR**
- IX. Explain the various data collection methods followed in qualitative research and what are the various methods by which analyzed data is displayed.