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***B.Arch. Degree VIII Semester Regular/Supplementary Examination
April 2023***

**AR 1802 PROFESSIONAL PRACTICE
(2014 Scheme)**

Time: 3 Hours

Maximum Marks: 100

**PART A
(Answer ALL questions)**

(8 × 5 = 40)

- I. Write short notes on:
- Powers and Functions of IIA.
 - Functions of Council of Architecture.
 - Tender Notice and sketch a sample format.
 - EMD.
 - Clerk of work.
 - Powers and Duties of arbitrators.
 - Double entry and Single entry.
 - Shortcomings while running own Architecture office.

PART B

(4 × 15 = 60)

- II. Discuss in Detail comprehensive Architecture Services and Fee payment at different Stages.
- OR**
- III. What are the major guidelines for architectural competitions in India according to COA?
- IV. Write short notes on:
- Contract drawings
 - Types of contracts
 - Contract bills.
- OR**
- V. Definition and general principles of contract and explain contract documents, contract sum and contract bills.
- VI. Define arbitration with powers and duties of arbitrators and what are the advantages of arbitration.
- OR**
- VII. Discuss the duties and liabilities of Architect, Employer and Contractor.
- VIII. Explain with example the running of an architectural office in India with example and management of office.
- OR**
- IX. Explain various levels of management and management practices.

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***B.Arch. Degree VIII Semester Regular/Supplementary Examination
April 2023***

**AR 1803 DISASTER PREPAREDNESS AND MANAGEMENT
(2014 Scheme)**

Time: 3 Hours

Maximum Marks: 100

**PART A
(Answer ALL questions)**

(8 × 5 = 40)

- I. Write short notes on the following:
- Hazard and Disaster.
 - Endogenous and exogenous hazards.
 - Land slides.
 - Capacity building.
 - Mitigation.
 - Retrofitting methods.
 - Disaster relief.
 - GIS.

PART B

(4 × 15 = 60)

- II. Discuss hydrological disasters in India stating examples from the past occurrences.
- OR**
- III. Explain in detail man induced hazards.
- IV. What mitigation measures are applied during cyclone?
- OR**
- V. Discuss flood, its types, impacts and causes of occurrence. Explain the methods to mitigate flood.
- VI. Explain the components of disaster Management Cycle and the challenges in implementation in India.
- OR**
- VII. Write in detail about making of hazard zoning maps.
- VIII. Discuss the role of social and mass media in disaster management stating an example.
- OR**
- IX. Explain the role of recovery, reconstruction and rehabilitation on post disaster scenario.

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**B.Arch. Degree VIII Semester Regular/Supplementary Examination
April 2023**

**AR 1804 CONSTRUCTION MANAGEMENT
(2014 Scheme)**

Time: 3 Hours

Maximum Marks: 100

**PART A
(Answer ALL questions)**

(8 × 5 = 40)

- I. Write short notes on the following:
- Depreciation.
 - Project management triangle
 - Expediting
 - Predecessor and Successor Activity
 - Resource allocation and the role of resource histogram
 - Cost slope
 - Critical path
 - Merge and Burst activity.

PART B

(4 × 15 = 60)

- II. (a) Explain project life cycle and what are the various stages of a project life cycle? 7½
 (b) What is the role of a project manager in construction industry? 7½
- OR**
- III. Explain life cycle of a construction project. What are the various costs involved in a project? Illustrate how costs and expenditure varies during different stages of a construction project. 15
- IV. Prepare the network diagram, number the nodes, find the critical path, total float, free float, independent float and interfering float. 15

Activity	Duration in days	Preceding Activity
A	3	-
B	4	A
C	6	A
D	3	B,C
E	6	C
F	4	D
G	5	E
H	3	G
I	6	F,H
J	4	G
K	4	J
L	4	I,K

OR

(P.T.O.)

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- V. (a) Explain work breakdown structure with an example. (5)
 (b) For the construction of a building the following actions are to be performed. Draw the bar chart and find the completion time of the project. (10)

Activity	Duration(weeks)
P	1
Q	3
R	1
S	3
T	5
U	3
V	4
W	3

- Activities P and Q can be performed in parallel.
- Activities R and S cannot start until activity P is complete.
- T cannot start until half the work of activity R is complete.
- Activity U can start only after activity S is complete.
- Activity V succeeds activity R.
- Activity W which is the last activity succeeds activity T.

- VI. (a) Differentiate between resource smoothing and resource leveling. (10)
 (b) Explain the difference types of networks. (5)

OR

- VII. (a) Differentiate between PERT and CPM. (7)
 (b) Explain dummy activity. What is the use of dummy activity in constructing a network? (4)
 (c) Explain parallel and serial activities. (4)

- VIII. Explain the features of any two software used in construction management projects. (15)

OR

- IX. Explain the types of delays. What are the main causes of delays in a construction project? (15)

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B.Arch. Degree VIII Semester Regular/Supplementary Examination
April 2023

AR 1805(a) ENERGY EFFICIENT ARCHITECTURE (Elective III)
(2014 Scheme)

Time: 3 Hours

Maximum Marks: 100

PART A
(Answer *ALL* questions)

(8 × 5 = 40)

- I. Write short notes on the following:
- (a) Low energy materials method of construction.
 - (b) Advantages of Passive Design.
 - (c) HVAC system in architecture.
 - (d) Intelligent buildings.
 - (e) Lighting control in smart building.
 - (f) Difference between smart building and ordinary building.
 - (g) Benefits of video surveillance.
 - (h) Differentiate biophilic and non biophilic design concept.

PART B

(4 × 15 = 60)

- II. Explain briefly on photovoltaic systems and solar water heating on modern buildings.
- OR**
- III. Explain in detail various renewable energy systems.
- IV. Explain the contribution of smart buildings in reducing energy consumption.
- OR**
- V. Explain the driving factors of smart buildings.
- VI. Discuss the smart building systems that are used in a retirement home.
- OR**
- VII. Explain how power management can be done in a smart home.
- VIII. Explain briefly on energy effectiveness of biophilic architecture.
- OR**
- IX. Explain in detail nature – design – health relationship with any two suitable examples.

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***B.Arch. Degree VIII Semester Regular/Supplementary Examination
April 2023***

**AR 1806 (a) ARCHITECTURAL CONSERVATION (ELECTIVE IV)
(2014 Scheme)**

Time: 3 Hours

Maximum Marks: 100

PART A
(Answer *ALL* questions)

(8 × 5 = 40)

- I. Write short notes on the following:
- Objectives of Architectural Conservation.
 - Authenticity in Conservation practice.
 - Wooden wall and roof construction.
 - Common defects seen in old structures.
 - Defects caused by climatic causes.
 - Natural causes of decay of structure.
 - Documentation.
 - Different values associated with Heritage buildings.

PART B

(4 × 15 = 60)

- II. Explain in detail the contributions of Venice and Burra Charter.
OR
- III. Explain briefly the role played by ASI and INTACH with a suitable example in Architectural Conservation practices.
- IV. Explain the relevance of Traditional and construction practices in Conservation. Support the answer with an example from Kerala's traditional architecture.
OR
- V. Explain briefly the various defects seen in the spanning elements used in Traditional Buildings.
- VI. Explain in detail the causes of decay in materials and structures.
OR
- VII. Explain the consequences of natural disasters in old structures.
- VIII. Explain in detail the preparation of inventory for listing heritage structures.
OR
- IX. What are the seven degrees of Intervention in Architectural Conservation?
