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**B.Arch. Degree VIII Semester Examination April 2021****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 the following.
- Architect's Act.
  - Indian Institute of Architects.
  - Tender Notice.
  - Item Rate Contract and Lump Sum Contract.
  - Resident Engineer.
  - Arbitrators and Umpires.
  - Duties and responsibilities of the principal architect.
  - Supervision.

**PART B**

(4 × 15 = 60)

- II. What are the major guidelines for Architectural Competitions in India according to COA.
- OR**
- III. What is Comprehensive Architectural Services as per Council of Architecture.
- IV. Explain the process of tendering in an Architectural project and various types of Tenders.
- OR**
- V. What are the different types of Contract? What is Contract Document?
- VI. Define Arbitration and discuss the advantages of settling the disputes and differences by means of Arbitration.
- OR**
- VII. Discuss the duties and liabilities of Architect, Employer and Contractor.
- VIII. Explain the process of Accounting and different systems of accounting in Building construction.
- OR**
- IX. Explain various principles of management and various management practices.

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## ***B.Arch. Degree VIII Semester Examination April 2021***

### **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
- Risk.
  - Vulnerability.
  - Flood.
  - Tsunami
  - Community preparedness.
  - Capacity building.
  - Casualty management.
  - Post disaster recovery.

#### **PART B**

(4 × 15 = 60)

- II. Write in brief about vulnerability profile of Indian sub-continent citing examples.
- OR**
- III. Explain briefly different types of disasters.
- IV. What is Bio terrorism? Explain its causes, harmful effects and mitigation measures with an example.
- OR**
- V. What is Flood? Explain its causes, harmful effect and mitigation measures.
- VI. Write in detail the significance of predictability/ forecasting and warning in disaster management.
- OR**
- VII. Discuss in detail the role of preparedness and mitigation measures taken to reduce the risk of damage in an earthquake prone area.
- VII. What is remote sensing? Explain in detail the role of GIS application in disaster monitoring?
- OR**
- IX. Explain the role of various agencies for disaster management in India during a disaster.

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## B.Arch. Degree VIII Semester Examination April 2021

### AR 1804 CONSTRUCTION MANAGEMENT (2014 Scheme)

Time : 3 Hours

Maximum Marks : 100

*(Illustrate all answers with neat sketch and colour)*

#### PART A (Answer ALL questions)

(8 × 5 = 40)

- I. Write short notes on the following.
- Objectives of Construction Management.
  - Cash flow and its importance in construction management.
  - Bar chart and gannt chart.
  - Work break down structures with example.
  - PERT
  - Linear Scheduling Method (LSM).
  - Claim and delay analysis in construction management.
  - Project Monitoring.

#### PART B

(4 × 15 = 60)

- II. What are the various types of construction projects? Explain in detail.
- OR**
- III. Some people says that Construction Management is a civil engineering oriented subject while some other says it is architecture subject. Comment.
- IV. Write in detail about Network representation.
- OR**
- V. Draw the network diagram and mark the critical path. Calculate the Early Start (ES), Late Start (LS), Early Finish (EF), Late Finish (LF), Interfering Float (Int Float), Independent Float (Ind Float), Free Float (FF) and Total Float (TF).

Activity	Duration	Predecessor
A	6	-
B	9	A
C	3	A
D	8	B
E	1	A
F	4	C
G	1	D
H	2	E
I	1	F
J	6	G, H, I

(P.T.O.)

- VI. Explain the following terms with examples.
- (i) Independent activity and dependent activity.
  - (ii) Merge activity and burst activity.
  - (iii) Predecessor and Successor.
  - (iv) Dummy and Concurrent.

OR

- VII. Write about various scheduling methods used in construction Management.
- VIII. Write about project monitoring and control process. Write about the techniques to evaluate project performance.

OR

- IX. Describe in detail the project management software packages. Explain how MS project and Primavera are useful in management process.

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Activity	Duration	Predecessors
A	5	-
B	3	A
C	4	A
D	6	B, C
E	2	A
F	1	C
G	1	D
H	2	E
I	1	F
J	8	G, H, I

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## ***B.Arch. Degree VIII Semester Examination April 2021***

### **AR 1805 (a) ENERGY EFFICIENT ARCHITECTURE (2014 Scheme)**

Time : 3 Hours

Maximum Marks : 100

#### **PART A**

(Answer *ALL* questions)

(8 × 5 = 40)

- I. Write short notes on the following:
- Solar water heating
  - Solar passive techniques in building design
  - Active Solar System
  - Aims of Smart buildings
  - ICT in smart buildings
  - Smart building systems
  - What is the purpose HVAC Control system
  - Biophilic design

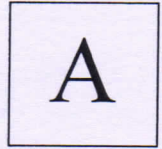
#### **PART B**

(4 × 15 = 60)

- II. Explain renewable energy systems and how it helps in energy efficient architectural practice.
- OR**
- III. Explain the Design influencing thermal comfort conditions and reduction of transportation energy.
- IV. Explain the smart building and energy efficiency buildings with suitable examples
- OR**
- V. Explain history of concept of smart buildings and ICT in smart buildings with suitable examples.
- VI. Difference between ordinary buildings and intelligent/smart buildings
- OR**
- VII. Explain any three smart building systems and its model of working.
- VIII. What is Biophilic design? Explain the principle and benefits of Biophilic design.
- OR**
- IX. What is the usefulness of smart buildings especially for aged with suitable examples?

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## ***B.Arch. Degree VIII Semester Examination April 2021***

### **AR 1806 (a) ARCHITECTURAL CONSERVATION (2014 Scheme)**

Time: 3 Hours

Maximum Marks: 100

#### **PART A (Answer *ALL* questions)**

(8 × 5 = 40)

- I. (a) Define Architectural Conservation.
- (b) State Art and Heritage Commission and INTACH.
- (c) List five Traditional construction techniques.
- (d) Explain five defects seen in old structures.
- (e) What are the main causes of decay in materials?
- (f) Briefly list five man made causes for decay in structures.
- (g) Explain techniques of Conservation.
- (h) What are the main components of documentation in Conservation?

#### **PART B**

(4 × 15 = 60)

- II. Explain in detail the contributions of John Ruskins and William Morris in developing the philosophies behind modern Conservation practice.
- OR**
- III. Explain briefly the various agencies involved 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. Elaborate on the defects in the various parts of an ancient structure with respect to materials, techniques and structure.
- VI. Human caused damage can be far more rapid and aggressive. Explain with suitable examples.
- OR**
- VII. Explain the consequences of natural disasters in old structures.
- VIII. Explain in detail the preparation of listing of heritage structures.
- OR**
- IX. What are the seven degrees of Intervention in Architectural Conservation?

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