

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
FACULTY OF THE BUILT ENVIRONMENT

**DEPARTMENT OF ARCHITECTURE**  
BACHELOR OF ARCHITECTURAL STUDIES (HONOURS) DEGREE  
2013-2014 ACADEMIC YEAR  
PART I - FIRST SEMESTER EXAMINATIONS – DECEMBER 2013  
**AAR 1103 – HISTORY OF ARCHITECTURE I**

**Instructions**

**Duration: 3 Hours**

**Answer any 4 Questions (use SKETCHES wherever possible)**

**QUESTION 1**

- a. Name four factors that influenced the early forms of primitive architecture. (4)
- b. Name and describe the temple building type used by the Mesopotamians, (3)
- c. Explain the following four terms used by the Ancient Egyptians
  - i. Sphinx.
  - ii. Pylons
  - iii. Clerestory
  - iv. Trabeated Structure (4)
- d. Draw the plan form of the Egyptian Temple of Khons at Karnak and name four principal spaces of the Temple. (6)
- e. Why was the preservation of the body so important to the Ancient Egyptians? Detail the stages of development from the first tombs used by the Egyptians to the Great Pyramids. (8)

**[25]**

**QUESTION 2**

- a. Which excavated Palace gave some credence to the legend of the mythical Minotaur's labyrinth. Explain how features of the building were used as explanations of the myth? (3)
- b. Name the three orders of Classical Greek Architecture. (3)
- c. Draw the Column and Entablature of each of these orders giving the correct proportions of the radius to height. Indicate three features of each order. (12)
- d. Explain the term Entasis and how this effect is used in Greek temples (3)

- e. Name the one building that is considered the highpoint of the Classical Greek Period. Who was its architect? Explain One way in which the architect employed Entasis to perfect this building (4)

[25]

### **QUESTION 3**

- a. Roman architects mastered Space; the Greeks mastered architectural form. Explain this difference illustrating with examples from both civilizations. (8)
- b. Name and describe with diagrams the two additional Classical Orders used by the Romans. (6)
- c. What was the principal building material used by the Romans? From what raw materials was it made? How does its use differ from its modern use? (3)
- d. Describe the difference between the corbelled arch and the radiating arch. Describe two other methods employed by the Romans to improve the strength and buildability of their arches. (4)
- e. Describe with diagrams one of following Roman buildings.
- i. Basilica of Constantine
  - ii. Pantheon (4)

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### **QUESTION 4**

The Edict of Milan paved the way for Christianity to become the official state religion of the Roman Empire which led to a boom in church building. Two distinct forms arose for these Early Christian Churches.

- a. Name these two forms and describe with diagrams, how each of these forms suited different concepts of church design. (8)
- b. Describe with diagrams how the Hagia Sophia resolved :-
- i. The conflict between two forms of church
  - ii. The issue of placing a dome on a square plan (8)
- c. Name the three religions that lay behind each of these architectural styles
- i. Byzantine
  - ii. Saracenic
  - iii. Romanesque (3)

d. Romanesque architecture coincided with an increase in the number of altars placed in the church

Draw in plan the three ways in which these multiple altars were accommodated in the plan of the church and name these configurations. (6)

[25]

### **QUESTION 5**

a. Name the three distinctive characteristics of Gothic Architecture. By comparing with the Romanesque equivalents describe with diagrams the structural advantages of these features. (12)

b. Comparative to Romanesque characteristics, how did these features both formally and spatially assist in achieving the overall aspirations of Gothic architecture. (9)

c. The Kings College Chapel in Cambridge belongs to which English Gothic Style. Name and describe the type of ceiling vault used that typifies this style. Where was this type of vault first seen. (4)

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