

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF ARCHITECTURE
BACHELOR OF ARCHITECTURAL STUDIES (HONOURS) DEGREE
2012 - 2013 ACADEMIC YEAR

PART I - FIRST SEMESTER EXAMINATIONS – JANUARY 2013
AAR 1103 – HISTORY OF ARCHITECTURE I

Instructions

Duration: 3 Hours

Answer all 4 Questions

Illustrate your answers clearly and legibly with sketches where appropriate
Number all your sheets.

QUESTION 1

- a) Name five factors that influenced the early forms of primitive architecture. (5)
- b) Name two mythical structures influenced or derived from the Ziggurat (2)
- c) Draw the plan form of the Egyptian Temple of Ammon at Karnak and name four principal spaces of the Temple. (8)
- d) Describe how the following elements were used in the Egyptian temples.
 - i. Progressive Axis
 - ii. Pylons
 - iii. Clerestory (6)
- e) Describe two vegetal forms used in the design of Egyptian Columns. (4)

[25]

QUESTION 2

- a. Describe with an annotated sketch the column form used by the Minoans and name the palace where these can be found. (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 meaning of two of the following terms used by the Greeks
 - i. Tectomorphic Decoration
 - ii. Arété
 - iii. Trabeated Structural System (2)

- e. Draw the plan form of a Classical Greek Peripteral Temple that is six columns in width. Indicate the principal spaces within the temple. (5)

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QUESTION 3

- a. Name and describe the building considered the highpoint of the Greek Classical Period. Describe why the building perfects the development of temple form and embodies the spirit of Greek Unification. (10)
- b. The Hellenistic Age continued the use of the Classical Orders. However there were some essential differences. Describe two ways in which the Hellenistic Architecture differed from that of the Classic Greeks. (4)
(5)
- c. How does the Roman Tuscan Column differ from the Greek Doric Column? (2)
- d. 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)
- e. Describe the method of laying solid stone blocks in a coursed fashion used by the early Romans and Greeks. Describe two ways the Romans later employed stone and concrete to build walls more economically. (6)

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QUESTION 4

- a. Explain the term Arcuated Structural System. What advantages does this system have over the Trabeated Structural System? (4)
- b. 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. (6)
- c. Explain the following terms
- i. Voussoir
 - ii. Vault
 - iii. Dome
 - iv. Cross Vault
 - v. Hemicycle (5)

d. Describe the following buildings including details of their size, shape, architectural design and structural ingenuity.

i. Coliseum

ii. Pantheon

(10)

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