

ROYAL CIVIL SERVICE COMMISSION
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2012
EXAMINATION CATEGORY: TECHNICAL

PAPER III: SUBJECT SPECIALIZATION PAPER for ARCHITECTURE

Date : 14 October 2012
Total Marks : 100
Examination Time : 2.5 hours
Reading Time : 15 Minutes (prior to Exam Time)

INSTRUCTIONS

1. Do not write anything during the first 15 minutes. This time is provided to check the number of pages of this Question Booklet, to check for printing errors, to read the instructions, and to clarify doubts.
2. Write your Roll Number clearly on the Answer Booklet in the space provided in the Booklet. No other particulars that would indicate the identity of the candidate shall be written either in the Question or the Answer Booklet.
3. Write all answers either in Blue or Black ink only. For drawings you may use pencils and other colours where applicable.
4. Write all answers in the Answer Booklet provided. You are not allowed to write anything in the Question Booklet. Please note that any answer written in the Question Booklet shall not be marked.
5. Write answers neatly and legibly. Illegible writing shall not be marked.
6. This Question Booklet consists of **9** pages. The questions are divided into **TWO** sections, **SECTION A** and **SECTION B**.
7. **SECTION A** consists of **TWO** parts, **PART I** and **PART II**.
 - **PART I** consists of 30 multiple choice questions and each question carries one (1) mark. Answer all 30 questions.
 - **PART II** consists of 4 short answer questions and each question carries five (5) marks each. Answer all 4 questions.
8. **SECTION B** consists of **2 Case Study** questions of fifty (50) marks each. Choose and answer only **ONE** question from this section.

SECTION A – PART I: MULTIPLE CHOICE QUESTIONS

(30 marks – 1 mark for each question)

Instructions for Section A- Part I:

Answer all 30 questions in this section. Please copy the question number and the letter of the answer of your choice onto the Answer Booklet.

1. The architectural style that features skeletal type stone structures with large expanses of stained glass, external flying buttresses and ribbed stone vaults is known as
 - a) Medieval architecture
 - b) Neo Greek architecture
 - c) Gothic architecture
 - d) Classical architecture

2. New forms and revolution in Roman architecture was made possible mainly by the invention and technology of
 - a) high bridge spans and metal bars
 - b) the arch and concrete
 - c) leaner engineered timber beams and columns
 - d) thinner and taller buttress forms

3. The Fransworth house by Mies van der Rohe is a famous architectural expression of the
 - a) Environmental Style
 - b) Metal Structural style
 - c) International Style
 - d) Minimalistic Style

4. The Cathedral of the Sagrada Familia in Barcelona was designed by the Architect
 - a) Christopher Wren
 - b) Walter Gropius
 - c) Alvar Aalto
 - d) Antoni Gaudi

5. Rem Koolhaas, one of the most prominent contemporary architects, is famous for the design of
 - a) the CNN Headquarters in London
 - b) the CCTV Headquarters in Beijing
 - c) the Chinese Government Offices in Beijing
 - d) the CNN towers in Shanghai

6. Adobe walls are constructed with
 - a) stone bricks
 - b) mud bricks
 - c) cement bricks
 - d) lime bricks

7. Rammed earth walls constructed from local earth are
 - a) more environmentally friendly than stone walls
 - b) less environmentally friendly than stone walls
 - c) equally environmentally friendly compared to stone walls
 - d) none of the above

8. Natural stone is
 - a) strong in compression
 - b) weak in compression
 - c) malleable in compression
 - d) ductile in compression

9. Tensile Stress is present when a material
 - a) Compresses or contracts
 - b) Stretches or elongates
 - c) Deforms in a perpendicular
 - d) Shortens

10. The average Shear Stress is calculated by
 - a) dividing an internal force by an area parallel to that force
 - b) subtracting an internal force by an area parallel to that force
 - c) multiplying an internal force by area
 - d) adding an internal force with an area

11. Dead Loads are normally exerted in a
 - a) horizontal plane
 - b) vertical plane
 - c) perpendicular plane
 - d) diagonal plane

12. Strain is the term applied to
 - a) deformation (or change of shape) of an object when brittle and frozen
 - b) deformation (or change of shape) of an object when a load is placed on it
 - c) shortening of an object when malleable
 - d) all of the above

