

**KATHMANDU UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF ARCHITECTURE**

**Aptitude Test Syllabus for B. Arch Entrance Examination**

Students who want to pursue B. Arch graduates must prepare themselves for an aptitude test in order to examine the ability of students to enter the course. B.Arch is a 5 years intensive course wherein commitment, perseverance and passion are indispensable. Unlike other engineering subjects, architecture is an amalgam of engineering and art, which makes this course unique. Students should be prepared to engage themselves for a full 5 years and should know the basics of architecture before taking an admission. Practice of an aptitude test is worldwide and Kathmandu University has adopted a universally accepted modality of aptitude test.

**Eligibility:**

Students who appear in the computer based test (CBT) and pass the entrance examination are eligible to give the aptitude test. Pre-information to the department is must and one who fails to appear in the aptitude test will not be admitted to the B. Arch course.

**Evaluation Criteria:**

Students will be evaluated based on their performance in the test. The test carries a total of 50 marks and is divided into five sections. To pass, students must score at least 20 marks. Only those who pass the aptitude test will be considered for admission to the Bachelor of Architecture (B.Arch) program.

**Syllabus:**

This test will examine the interest, aptitude, and creative potential of students to pursue architecture as an academic course. A general awareness of art, design, and architecture is expected, along with the ability to understand and visualize drawings. While in-depth technical knowledge is not required, students should demonstrate a foundational understanding of spatial concepts, creative thinking, and architectural awareness. The test will consist of five sections designed to assess a range of skills including freehand sketching, visual-spatial ability, awareness of architectural context, analytical reasoning, and motivation for joining the program. Each section will present a different format—ranging from drawing tasks and multiple-choice questions to short answer responses and a written statement of purpose. The aptitude test aims to holistically evaluate the student's readiness and passion for architectural education.

#### **A. Design & Drawing Skills**

Students are expected to demonstrate their ability to translate ideas into visual form through sketching. Situational or conceptual themes will be provided, such as imagining a festival scene or a peaceful park corner. Emphasis is placed on composition, scale, proportion, mood, and color application. Students are encouraged to express depth and storytelling through their drawings.

#### **B. Visual & Spatial Ability**

This section assesses the student's understanding of three-dimensional forms, geometric reasoning, and spatial transformations. Questions may involve interpreting 2D nets into 3D objects, predicting views from different angles, or identifying section profiles of solid geometries. The goal is to evaluate the student's spatial visualization skills.

#### **C. Analytical & Logical Reasoning**

Architecture requires critical problem-solving and logical reasoning. This section includes pattern recognition, sequence completion, symmetry identification, and spatial logic problems, typically in a multiple-choice format. These questions evaluate cognitive flexibility and clarity of thought.

#### **D. Architectural Awareness**

Students are required to show a basic understanding of architectural heritage, important figures in architecture, and contextual design principles. They may be asked to write about renowned national and international architects, iconic monuments, traditional materials, and regional architectural identities. This section aims to test the student's curiosity and engagement with the architectural world.

#### **E. Statement of Purpose (SoP)**

In this reflective writing section, students articulate their motivation to pursue architecture, their creative inclinations, personal experiences, and their expectations from the five-year course. The response should show depth of thought, self-awareness, and a genuine passion for architecture. Sketches may be included to support the written content.

**A sample question for an aptitude test has been provided for the reference.**

**Sample Questions:**

Kathmandu University  
School of Engineering  
Aptitude Test Model Question for B. Arch Entrant Students

Time: 2 Hours

Full marks: 50

Pass Marks:20

- Read Questions carefully before answering.
- Students should answer questions from all 5 sections and your answer should be based on your understanding and knowledge on a given topic. You are suggested to support your answers with sketches wherever necessary.

**Section A: Design & Drawing Skills** ( $15 \times 1 = 15$  marks)

Imagine a busy local market in your hometown during a festival. Draw a freehand sketch showing the market scene, capturing key elements like shops, people, decorations, and overall ambiance. Use color as you see fit. Ensure the sketch is proportionate.

**OR**

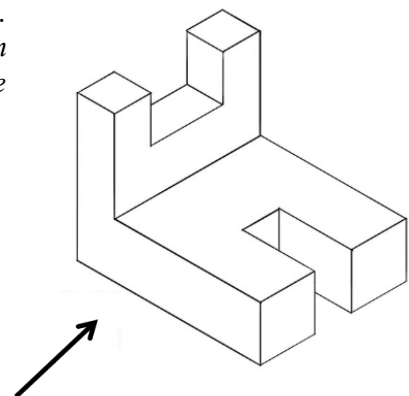
Create a poster on the theme: “Future Cities: Green and Smart”. (Use drawing and color to support your concept)

**Section B: Visual & Spatial Ability** ( $15 \times 1 = 15$  marks)

Visualize rotating an 'L'-shaped object 90° clockwise in 3D. Sketch and describe the resulting shape.

**OR**

Draw the front view, top view and right side view of the given object. (Use hidden lines where necessary to represent parts not visible from the respective views. The arrows indicate the direction from which the object is being viewed)

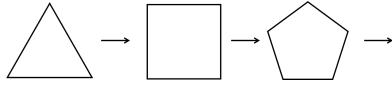


**Section C: Analytical & Logical Reasoning** ( $5 \times 1 = 5$  marks)

Which shape is the odd one out?

A.Circle    B.Sphere    C.Cube    D.Cylinder

Which shape completes the pattern?

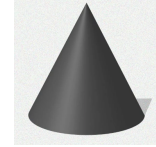


- A. Hexagon      B. Circle      C. Octagon      D. Star

What is the *top view* of a cone likely to look like?

- A. Triangle  
B. Circle

- C. Rectangle  
D. Cylinder



Which of the following skills is MOST essential for accurate 3D drawing from a model?

- A. Memorizing facts about geometry  
B. Copying line by line

- C. Understanding perspective and volume  
D. Tracing over printed images

Identify the mirror image of the letter "R". Which of the following options is correct?

- A. Standard R  
B. Horizontally flipped R

- C. Vertically flipped R  
D. Inverted R

**Section D: Architectural Awareness** ( $5 \times 1 = 5$  marks)

Who is the architect of the famous "Fallingwater" house in the USA?

- A. Le Corbusier  
B. Frank Lloyd Wright

- C. Zaha Hadid  
D. I.M. Pei

Which material is traditionally used in Newari architecture in Nepal?

- A. Concrete  
B. Timber and brick

- C. Steel  
D. Glass

The Swayambhunath Stupa is located in which city?

- A. Patan  
B. Hetauda

- C. Bhaktapur  
D. Kathmandu

What is the function of a *Jaalis* in buildings?

- A. Decorative flooring  
B. Natural ventilation and light control

- C. Water drainage  
D. Load-bearing structure

**Section E: Statement of Purpose (SoP)** (10 marks)

Why do you want to study architecture? Describe your personal experiences, creative inspirations, and what you hope to learn in the next five years. (*You can Support the answer with sketches*)