

Architectural Marvels and Mechanics

Architecture · Answer Key · 15 Questions

1. Which ancient architectural feature was developed by the Romans to allow for wider spans and more stable structures than simple post-and-lintel construction?

- A) The cantilever
- B) The true arch**
- C) The flying buttress
- D) The geodesic dome

2. What is the specific name of the central stone at the top of an arch that locks all other stones into place?

- A) Keystone**
- B) Capstone
- C) Foundation stone
- D) Corbel

3. Which architectural style, common in the Middle Ages, is characterized by pointed arches, ribbed vaults, and flying buttresses?

- A) Romanesque
- B) Neoclassical
- C) Gothic**
- D) Art Deco

4. The Great Pyramid of Giza was originally covered in what material that made it shine brightly in the sun?

- A) White limestone**
- B) Polished marble
- C) Gold leaf
- D) Glazed ceramic tiles

5. Which famous architect is known for 'organic architecture' and designed the house known as Fallingwater?

- A) Antoni Gaudí
- B) Frank Lloyd Wright**
- C) Le Corbusier
- D) Zaha Hadid

6. What structural element is used in skyscrapers to counteract the force of wind, keeping the building from swaying too much?

- A) A decorative spire
- B) A tuned mass damper**
- C) A hydraulic piston
- D) An external skeleton

7. The Sydney Opera House, designed by Jørn Utzon, is famous for which unique architectural feature?

- A) Its massive wooden spire
- B) Its concrete shell roof**
- C) Its underground theater
- D) Its rotating floors

8. Which ancient structure was built as an amphitheater for gladiatorial contests and public spectacles in Rome?

- A) The Pantheon
- B) The Parthenon
- C) The Colosseum**
- D) The Forum

9. In architecture, what does the term 'facade' refer to?

- A) The interior staircase
- B) The foundation depth
- C) The exterior face or front of a building**
- D) The roof drainage system

10. Which material did Gustave Eiffel primarily use to construct the framework of the Eiffel Tower?

- A) Cast iron
- B) Wrought iron**
- C) Steel
- D) Reinforced concrete

11. What is the architectural purpose of a 'flying buttress'?

- A) To support heavy walls from the outside**
- B) To provide a place for gargoyles
- C) To improve ventilation
- D) To create an entrance arch

12. Which building is the tallest man-made structure in the world as of 2024?

A) Shanghai Tower

B) Burj Khalifa

C) Merdeka 118

D) Abraj Al Bait

13. The Parthenon, located on the Acropolis of Athens, was built primarily to honor which Greek deity?

A) Zeus

B) Poseidon

C) Athena

D) Apollo

14. What type of truss is commonly used in bridges because of its high structural efficiency and simple geometric shape?

A) Warren truss

B) Catenary truss

C) Curved truss

D) Suspension truss

15. Who is the architect famous for the modernist buildings in Barcelona, such as the Sagrada Família, which feature curvy, nature-inspired shapes?

A) Ludwig Mies van der Rohe

B) Antoni Gaudí

C) Frank Gehry

D) Oscar Niemeyer