

Advanced Civil Engineering History and Metrics

Civil Engineering · Answer Key · 15 Questions

1. What was the final completion year of the Panama Canal, marking its official opening to maritime traffic?

- A) 1912
- B) 1914**
- C) 1916
- D) 1918

2. The Golden Gate Bridge, designed by Joseph Strauss, was completed in which year?

- A) 1933
- B) 1935
- C) 1937**
- D) 1939

3. What is the height of the Burj Khalifa in Dubai, currently the tallest man-made structure in the world?

- A) 812 meters
- B) 828 meters**
- C) 844 meters
- D) 860 meters

4. In which year did the Tay Bridge disaster occur, leading to significant changes in structural safety standards in the UK?

- A) 1879**
- B) 1881
- C) 1883
- D) 1885

5. Who was the primary engineer responsible for the design of the Forth Bridge in Scotland, which opened in 1890?

- A) John Fowler
- B) Benjamin Baker**
- C) Gustave Eiffel
- D) Isambard Kingdom Brunel

6. The Akashi Kaikyo Bridge in Japan, at the time of its completion in 1998, set a record for the longest central span. What is that length?

A) 1,891 meters

B) 1,991 meters

C) 2,091 meters

D) 2,191 meters

7. What is the standard width of a 'narrow' gauge railway track as defined by the most common historical gauge?

A) 1,000 mm

B) 1,067 mm

C) 1,435 mm

D) 1,524 mm

8. The Hoover Dam, located on the border between Nevada and Arizona, was officially completed in which year?

A) 1932

B) 1934

C) 1936

D) 1938

9. What is the approximate concrete volume required for the construction of the Three Gorges Dam in China?

A) 20 million cubic meters

B) 24 million cubic meters

C) 28 million cubic meters

D) 32 million cubic meters

10. Which civil engineering pioneer is credited with the invention of the pneumatic caisson for bridge foundations in the 19th century?

A) John Roebling

B) James Eads

C) Thomas Telford

D) Robert Stephenson

11. The Channel Tunnel (Chunnel) connecting the UK and France reached its 'breakthrough' point in which year?

A) 1990

B) 1992

C) 1994

D) 1996

12. The Sydney Harbour Bridge, famously known as the 'Coathanger', was officially opened on which date?

- A) 19 March 1930
- B) 19 March 1932**
- C) 19 March 1934
- D) 19 March 1936

13. What is the standard density of normal weight concrete in kilograms per cubic meter (kg/m³)?

- A) 2,100 kg/m³
- B) 2,400 kg/m³**
- C) 2,700 kg/m³
- D) 3,000 kg/m³

14. The Brooklyn Bridge was opened to the public on May 24 of which year?

- A) 1881
- B) 1883**
- C) 1885
- D) 1887

15. What is the maximum grade (slope) percentage typically allowed on standard interstate highways in mountainous terrain?

- A) 5%
- B) 6%**
- C) 7%
- D) 8%