

Social Intelligence and Electrical Calculations

Physics And Psychology · Answer Key · 21 Questions

1. What is the resistivity of copper at 20°C as stated in the text?

- A) 0.018 $\Omega \cdot m$**
- B) 0.00286 $\Omega \cdot m$
- C) 12.1 Ω
- D) 162 V

2. A coil is wound with 360 meters of copper wire. What is the cross-sectional area of the wire?

- A) 0.6 mm²**
- B) 162 mm²
- C) 360 mm²
- D) 0.018 mm²

3. What is the supply voltage for the coil in the first problem?

- A) 162 V**
- B) 20 V
- C) 75 V
- D) 20°C

4. What is the temperature coefficient of copper at 20°C?

- A) 0.00286/°C**
- B) 0.018/°C
- C) 20 °C
- D) 75 °C

5. What is the resistance of the heating element of the kettle?

- A) 12.1 Ω**
- B) 77.1 Ω
- C) 240 Ω
- D) 100 Ω

6. What is the efficiency of the kettle?

- A) 77.1%**
- B) 12.1%
- C) 240%
- D) 100%

7. What is the supply voltage to the kettle?

A) 240 V

B) 12.1 V

C) 77.1 V

D) 100 V

8. What is the specific heat capacity of water mentioned in the text?

A) 4.2 kJ/kg.K

B) 2.55 kJ/kg.K

C) 20.2 kJ/kg.K

D) 100 kJ/kg.K

9. What is the boiling point of water given in the problem?

A) 100°C

B) 20.2°C

C) 75°C

D) 20°C

10. How much water needs to be heated in the kettle problem?

A) 2.55 kg

B) 4.2 kg

C) 20.2 kg

D) 100 kg

11. What is the initial temperature of the water to be heated?

A) 20.2°C

B) 100°C

C) 75°C

D) 20°C

12. What is the cost of energy given as 'electrical charge' per kW-h?

A) 79.6 c/kW-h

B) 10 c/kW-h

C) 240 c/kW-h

D) 12.1 c/kW-h

13. In Figure 1, what is the value of E1?

A) 10V

B) 40V

C) 100?

D) 7?

14. In Figure 1, what is the value of E2?

- A) 40V
- B) 10V
- C) 40?
- D) 160?

15. In Figure 1, what is the value of R1?

- A) 100?
- B) 10V
- C) 40?
- D) 7?

16. In Figure 1, what is the value of R3?

- A) 7?
- B) 100?
- C) 40?
- D) 80?

17. Who is credited with tracing the origin of the definition of social intelligence back to 1920?

- A) Edward Thorndike
- B) Moss and Hunt
- C) Vernon
- D) Gardner

18. According to Moss and Hunt (1930s), what is social intelligence?

- A) The ability to get along with others
- B) The ability to understand and manage men and women
- C) Ease in society
- D) Susceptibility to stimuli from other members of a group

19. Vernon in the 1930s described social intelligence as being reflected in several aspects. Which of the following is NOT one of them?

- A) Knowledge of scientific theories
- B) Social technique or ease in society
- C) Insight into the temporary moods of strangers
- D) General ability to get along with people

20. How do good relationships help a person, according to the text?

A) Boost their immune system

B) Increase their IQ

C) Improve their book smarts

D) Reduce their need for sleep

21. What are two dominant views on social intelligence mentioned?

A) Psychometric and personality

B) Cognitive and behavioral

C) Interpersonal and intrapersonal

D) Academic and street smarts