

(These items were developed by teachers for the Technical Skills Assessment. Below is a sample item for each program standard.)

**Question 1 of 13**

Which item is MOST important to wear when heating liquids in an electric water bath?

- ☐ A) Gloves
- ☐ B) Lab coat
- ☐ C) Goggles
- ☐ D) Hair band

**Question 2 of 13**

What does the term SOP mean?

- ☐ A) Simplified Occupational Practice
- ☐ B) Standard Occupational Protocol
- ☐ C) Structured Operations Protocol
- ☐ D) Standard Operating Procedure

**Question 3 of 13**

What is the term for evaluating variation in data with the objective of forecasting future events?

- ☐ A) Quality control
- ☐ B) Trend analysis
- ☐ C) Quality assurance
- ☐ D) Ethical management

#### Question 4 of 13

What resource is the BEST to consult for detailed, current research about the subject if a scientist is designing an experiment?

- ☐ A) Articles in popular science magazines, such as Discover or Popular Science
- ☐ B) Peer-review articles in journals, such as Nature or Science
- ☐ C) Scientific articles published by news organizations, such as CNN, ABC, or CNBC
- ☐ D) Summary articles from online publications, such as Wikipedia

#### Question 5 of 13

To whom should all accidents be reported IMMEDIATELY?

- ☐ A) Quality auditor
- ☐ B) Safety manager
- ☐ C) Supervisor
- ☐ D) Public Health Administration

#### Question 6 of 13

Which characteristic would NOT be necessary in a model organism?

- ☐ A) Short generation time
- ☐ B) Close resemblance to other organisms or systems
- ☐ C) Relatively easy to grow
- ☐ D) Long lifespan

#### Question 7 of 13

How is air vented in a laminar flow hood?

- ☐ A) Through the floor
- ☐ B) Through the back
- ☐ C) To the top
- ☐ D) To the front

### Question 8 of 13

What medium is used MOST OFTEN for culturing a wide variety of bacteria, including E. coli?

- ☐ A) Tris buffer
- ☐ B) Bovine serum albumin
- ☐ C) Molecular agar
- ☐ D) Nutrient agar

### Question 9 of 13

Which indicator solution is used to test for the presence of proteins?

- ☐ A) Benedict
- ☐ B) Congo red
- ☐ C) Biuret
- ☐ D) DPA

### Question 10 of 13

Which mass of calcium chloride ( $\text{CaCl}_2$ ) is needed to make 100mL solution into a 1.5M solution? ( $\text{CaCl}_2 = 110.98 \text{ g/mol}$ )

- ☐ A) 11098g
- ☐ B) 16.6g
- ☐ C) 166.5g
- ☐ D) 150g

### Question 11 of 13

Which resource is NOT an online database used to analyze DNA sequences?

- ☐ A) DNA Subway
- ☐ B) GenBank
- ☐ C) PubMed
- ☐ D) NCBI

**Question 12 of 13**

How many cycles are COMMONLY programmed into a thermal cycler?

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- ☐ A) 30,000
- ☐ B) 300
- ☐ C) 30
- ☐ D) 3

**Question 13 of 13**

How many microliters are in 1.21 milliliters?

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- ☐ A) 1210uL
- ☐ B) 0.00121uL
- ☐ C) 121uL
- ☐ D) 12.1uL

## Bioscience Sample Test Answer Key

Question	Answer
1.	C
2.	D
3.	B
4.	B
5.	C
6.	D
7.	D
8.	D
9.	C
10.	B
11.	C
12.	C
13.	A