ImportSettings:

Base Settings: Brownstone Default

Information Field: Complexity

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Highest Answer Letter: D

Multiple Keywords in Same Paragraph: No

NAS ISBN13: 9781284153897, add to Ahead, Title tags

**Chapter: Chapter 02 - Quiz**

**Multiple Choice**

1. In precision medicine, providers seek to alter the course of disease using knowledge of:

A) basic biometrics.

B) general molecular and genetic alterations.

C) biochemical concentrations in the body.

D) ethnic groups.

Ans: B

Complexity: Difficult

Ahead: Introduction

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

2. Knowledge of which of the following is part of the data used in PM?

A) Geographic location

B) Ethnic history

C) Smoking history

D) Gene activity

Ans: D

Complexity: Moderate

Ahead: Background: What Is PM?

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

3. A patient who has a mutation in a key cancer gene, compared to other family members, displays:

A) variant calling.

B) gene expression.

C) a phenotype.

D) no useful difference.

Ans: A

Complexity: Difficult

Ahead: Key Events in the History of PM

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

4. Which part of PM least revolves around the work of a medical professional?

A) Patient self-reporting

B) IoT

C) Wearable devices

D) Smart phones

Ans: A

Complexity: Difficult

Ahead: Current Perspective

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

5. Which of the following has recently arisen in conjunction with PM?

A) Large private databases

B) Increased availability of nursing

C) Younger patient populations

D) Fewer foreign-born doctors in the United States

Ans: A

Complexity: Moderate

Ahead: Current Perspective

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

6. An example of a genomic atlas is:

A) TCGA.

B) EKG.

C) MPS.

D) the Human Genome Project.

Ans: A

Complexity: Easy

Ahead: Current Perspective

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

7. Clinical trials organized around molecular information:

A) have a long history.

B) are a recent phenomenon.

C) cannot be funded by the government.

D) require state permits.

Ans: B

Complexity: Moderate

Ahead: Current Perspectives

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

8. Which phase of a molecular clinical trial would test how much of an RNA-based therapy to give a patient?

A) Phase 1

B) Phase 2

C) Phase 3

D) Post-trial testing

Ans: A

Complexity: Difficult

Ahead: Current Perspectives

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

9. A patient with a tumor consisting of only one type of skin cancer cell might participate in a(n):

A) basket trial.

B) state trial.

C) umbrella trial.

D) baseline trial.

Ans: C

Complexity: Difficult

Ahead: Current Perspectives

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

10. When did the NRC lay out the taxonomy for molecular diseases?

A) 2000

B) 2003

C) 2009

D) 2013

Ans: D

Complexity: Easy

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

11. In the United States, how are EHRs services provided?

A) By each hospital

B) By a few large companies

C) By states

D) By overseas providers

Ans: B

Complexity: Moderate

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

12. A common data model for IS/IT requires:

A) a multistate compact for data sharing.

B) a common dictionary of terms.

C) a legal framework.

D) the participation of professional groups for nurses.

Ans: B

Complexity: Easy

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

**True/False**

1. True or False? The current model for diagnosis is the P4 model.

Ans: True

Complexity: Easy

Ahead: Scoping the HMIS Field: A Digital Health Ecosystem Perspective

Subject: Chapter 2

Title: Background: What Is PM?

2. True or False? A hospital that lacks molecular testing lacks the ability to practice PM.

Ans: True

Complexity: Moderate

Ahead: Key Events in the History of PM

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

3. True or False? MPS has greatly accelerated the pace of sequencing today as compared to the pace in 1990–2000.

Ans: True

Complexity: Moderate

Ahead: Key Events in the History of PM

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

4. True or False? A basket trial can include multiple tumor types.

Ans: True

Complexity: Easy

Ahead: Current Perspectives

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

5. True or False? The key to conducting PM is to group large amounts of data to look for subgroups and patterns.

Ans: True

Complexity: Moderate

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

6. True or False? A patient whose participation in a clinical trial requires use of a wearable device that creates non-anonymized data presents serious issues for HIPAA compliance.

Ans: True

Complexity: Difficult

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

7. True or False? A patient being treated for breast cancer using PM as a paradigm would need to see a range of specialists for a wide range of comparative data to be collected.

Ans: True

Complexity: Moderate

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

8. True or False? In a sense, a patient who is the only worldwide sufferer of a particular disease cannot be treated using PM.

Ans: True

Complexity: Difficult

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

9. True or False? A healthcare database containing data on middle-class residents of the Middle Atlantic states is of somewhat limited value in PM.

Ans: True

Complexity: Moderate

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

10. True or False? The home genealogy DNA tests that are now commonly available have a potential role in PM.

Ans: True

Complexity: Moderate

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

11. True or False? One lesson of precision medicine is that diseases that were once treated identically from patient to patient may now be treated very differently in different patients.

Ans: True

Complexity: Moderate

Ahead: Future Trends

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

 **Short Answer**

1. The information in DNA must flow through \_\_\_\_\_\_\_\_\_ before it can become the information in a protein.

Ans: RNA

Complexity: Moderate

Ahead: Key Events in the History of PM

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease

2. IDH1 is a mutation commonly associated with \_\_\_\_\_\_\_\_\_.

Ans: brain tumors

Complexity: Moderate

Ahead: Current Perspectives

Subject: Chapter 2

Title: Precision Medicine: Decoding the Biology of Health and Disease