

Test Bank for Microbiology Principles and Explorations 10th Black

Package Title: Test Bank

Course Title: Black 10e

Chapter Number: 2

Question type: Multiple-Choice

1) According to the chapter opener, the children who show the highest incidence of asthma in the U.S.A. are:

- a) Mormons
- b) Amish
- c) Mexican American
- d) African American
- e) none of these are correct choices

Answer: e

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

2) Which of the following best describes a benefit in reducing asthma incidence?

- a) living in an Amish community
- b) living near factories
- c) living near new housing estates
- d) living in a Huttite community
- e) living near power lines

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

3) The asthma incidence rate in Amish children is:

- a) 3%
- b) 2%
- c) 10%
- d) lower than the national average

e) 21.3%

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

4) The asthma incidence rate in Huttite children is:

a) 5%

b) 2%

c) 10%

d) higher than the national average

e) 50%

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

5) Which of these is a desirable trait for maintaining good health?

- a) possessing any microbiome at all, they make no difference
- b) not being overweight
- c) eating any food at all
- d) possessing a *Bacteroides* microbiome
- e) never exercising

Answer: b

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

6) Which of these is NOT a desirable trait for maintaining good health?

- a) possessing a *Bacteroides*-dominant microbiome
- b) maintaining a healthy weight
- c) eating fewer processed foods

- d) having a balanced microbiome
- e) all are undesirable traits

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

7) Which term is used if your microbiome is considered conducive to good health?

- a) balanced
- b) retrobiosis
- c) antagonobiosis
- d) antibiosis
- e) dysbiosis

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

8) How many bacteria are found in and on an average human?

- a) 10 times the number of body cells
- b) 100 times the number of body cells
- c) 1,000 times the number of body cells
- d) 10 million times the number of body cells
- e) 10 trillion times the number of body cells

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: True-False

9) Scientists are discovering that the microbiome may be responsible for illnesses such as asthma, Alzheimer's, or migraines, and may be a contributing factor to curing cancer.

Answer: True

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

10) How many body cells are there in a typical human being?

- a) 10 times less than the number of microbial cells
- b) 100 times less than the number of microbial cells
- c) 1,000 times less than the number of microbial cells
- d) 50 times less than the number of microbial cells
- e) 100 times more than the number of microbial cells

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

11) Which is NOT one of the enterotypes described for humans?

- a) *Bacteroides*-dominant
- b) *Prevotella*-dominant
- c) *Ruminococcus*-dominant
- d) all are correct enterotypes
- e) *Shigella*-dominant

Answer: e

Difficulty: Hard

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

12) Which is NOT one of the enterotypes described for humans?

- a) Type I
- b) Type II
- c) Type III
- d) Type V

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.2 Explain what an enteroptype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

13) Risks from obesity do NOT include:

- a) infertility
- b) metabolic syndrome
- c) high blood pressure
- d) heart disease
- e) stroke

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.2 Explain what an enteroptype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

14) What is NOT an accurate description of the term enterotype?

- a) gut microbes that influence your weight and risk factors for other illnesses
- b) the three grouping of microbes found in the human intestine
- c) the microflora found in your colon
- d) the three grouping of microbes found in the chimpanzee intestine
- e) the microflora found in your pericardial cavity.

Answer: e

Difficulty: Medium

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

15) The biggest contribution to the microbiome occurs:

- a) at the time of delivery
- b) during breast feeding
- c) while visiting chimpanzees at a zoo
- d) if anxiety and depression are experienced
- e) continuously, there is no period where the fundamental microbiome is established

Answer: a

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

16) According to this chapter, consumption of which food reduces anxiety and depression?

a) coffee and tea

b) bran

c) lamb

d) yogurt

e) tumeric

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

17) A course of antibiotics can disturb gut microflora for what period of time?

- a) no change occurs
- b) 10 minutes
- c) 10 days
- d) permanent irreversible damage occurs
- e) 2 years

Answer: e

Difficulty: Easy

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

18) At which developmental stage is it believed that antibiotic administration provides the highest risk of adversely affecting immune health and metabolic homeostasis?

- a) prenatally
- b) while the immune system is still developing
- c) in the adolescent
- d) in the middle aged adult

e) in the geriatric

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

19) Which choice indicates desirable bacteria to introduce into an individual suffering from anxiety and depression?

- a) *Lactobacillus*, found in yoghurt
- b) *E. coli* found bagged lettuce
- c) *Salmonella* found in meats
- d) *Bacteroides* a part of the Type I enterotype
- e) *Prevotella* a part of the Type II enterotype

Answer: a

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

20) How many genes are gut microbes thought to interact with when they are implicated in causing Crohn's disease?

- a) 9
- b) 140
- c) 180
- d) 25
- e) 1,000

Answer: b

Difficulty: Easy

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

21) The children who show the lowest incidence of asthma in the U.S.A. are:

- a) Huttites
- b) Amish

- c) Mexican American
- d) African American
- e) Japanese American

Answer: b

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

22) Which of the following best describes a benefit in reducing asthma incidence?

- a) close proximity to animals
- b) living near factories
- c) living near new housing estates
- d) living in older sections of towns
- e) living near railway lines

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

23) The asthma incidence rate in Amish children is:

- a) 5%
- b) 2%
- c) 10%
- d) higher than the national average
- e) 21.3%

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

24) The asthma incidence rate in Huttite children is:

- a) 5%

- b) 2%
- c) 10%
- d) lower than the national average
- e) 21.3%

Answer: e

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

25) Which of these is a desirable trait for maintaining good health?

- a) possessing any microbiome at all, they make no difference
- b) being overweight
- c) eating any food at all
- d) possessing a “healthy” microbiome
- e) never exercising

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

26) Which of these is NOT a desirable trait for maintaining good health?

- a) possessing any microbiome at all, they make no difference
- b) maintaining a healthy weight
- c) eating fewer processed foods
- d) having a balanced microbiome
- e) all are undesirable traits

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

27) Which term is used if your microbiome is not considered conducive to good health?

- a) imbiosis
- b) retrobiosis
- c) antagonobiosis
- d) antibiosis
- e) dysbiosis

Answer: e

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

28) How many bacteria are found in and on an average human?

- a) 10^{12}
- b) 10^{15}
- c) 10^{14}
- d) 10^2
- e) 10^{20}

Answer: c

Difficulty: Easy

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: True-False

29) A C-section affects the milk microbiome by reducing its diversity.

Answer: True

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1

Question type: Multiple-Choice

30) How many body cells are there in a typical human being?

a) 10^{10}

b) 10^{13}

c) 10^{20}

d) 10^5

e) 10^{17}

Answer: b

Difficulty: Easy

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

31) Which is NOT one of the enterotypes described for humans?

a) *Bacteroides*-dominant

b) *Prevotella*-dominant

c) *Ruminococcus*-dominant

d) all are correct enterotypes

e) *E. coli*-dominant

Answer: e

Difficulty: Hard

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

32) Which is NOT one of the enterotypes described for humans?

- a) Type I
- b) Type II
- c) Type III
- d) Type IV
- e) all are correct enterotype descriptions

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

33) Risks from obesity do NOT include:

- a) poor cold tolerance
- b) metabolic syndrome
- c) high blood pressure

d) heart disease

e) stroke

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

34) What is an accurate description of the term enterotype?

a) the microflora found on your skin

b) the microflora found in your oral cavity.

c) the microflora found in your colon

d) the microflora found in your upper respiratory tract

e) the microflora found in your sinuses.

Answer: c

Difficulty: Easy

Learning Objective 1: LO 2.2 Explain what an enterotype is, the three types found in humans, and how they differ between lean and obese individuals.

Section Reference 1: Section 2.2

Question type: Multiple-Choice

35) The biggest contribution to the microbiome occurs:

- a) at the time of delivery
- b) at puberty
- c) during old age
- d) when children turn five years old
- e) continuously, there is no period where the fundamental microbiome is established

Answer: a

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

36) According to this chapter, consumption of which food reduces anxiety and depression?

- a) chocolate
- b) apples

c) French fries

d) yogurt

e) green salad

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

37) A course of antibiotics can disturb gut microflora for what period of time?

a) 2 hours

b) 2 minutes

c) 2 days

d) 2 weeks

e) 2 years

Answer: e

Difficulty: Easy

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

38) At which age is it believed that antibiotic administration provides the highest risk of causing dysbiosis?

- a) prenatally
- b) in the infant
- c) in the adolescent
- d) in the middle aged adult
- e) in the geriatric

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

39) Which disease has been linked to maternal microbiome disturbances?

- a) epilepsy
- b) autism
- c) altered growth rate
- d) Crohn's disease
- e) all are caused by maternal microbiome disturbances

Answer: a

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

40) In mice, stress has been seen to affect:

- a) learning
- b) activity
- c) exploration
- d) microbiome diversity
- e) all of these are true

Answer: e

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

41) In mice, stress has been seen to affect all of the following EXCEPT:

- a) learning
- b) activity
- c) exploration
- d) microbiome diversity
- e) appetite

Answer: e

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

42) Which disease appeared reversible in mice when their microflora was changed?

- a) epilepsy
- b) autism
- c) altered growth rate
- d) Crohn's disease
- e) all are caused by maternal microbiome disturbances

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

43) Which disease may be linked to endotoxin release and ensuing inflammation?

- a) epilepsy
- b) autism
- c) altered growth rate
- d) obesity

e) all are caused by inflammatory disturbances

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

44) Which disease may be linked to endotoxin release and ensuing inflammation?

a) epilepsy

b) Type 2 diabetes

c) altered growth rate

d) obesity

e) all are caused by inflammatory disturbances

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: Multiple-Choice

45) Which bacterial genus was administered to President Carter to improve his cancer prognosis?

- a) *Bacteroides*
- b) *Salmonella*
- c) *Bifidobacterium*
- d) *E. coli*
- e) *Prevotella*

Answer: c

Difficulty: Medium

Learning Objective 1: LO 2.3 Describe the diversity of the human microbiome, how it originates and develops, and the factors that affect it.

Section Reference 1: Section 2.3

Question type: True-False

46) Age but not sex affects the gut microbiome.

Answer: True

Difficulty: Easy

Learning Objective 1: LO 2.1 Describe a microbiome and the research and potential applications resulting from these explorations.

Section Reference 1: Section 2.1