

Psychiatry and the Natural World

Psychiatry · Answer Key · 12 Questions

1. Which naturally occurring compound, found in some plants, has been studied for its potential therapeutic effects on mood disorders?

- A) Caffeine
- B) Nicotine
- C) Psilocybin**
- D) Limonene

2. Exposure to natural light, particularly sunlight, is known to regulate which essential biological rhythm related to sleep and wakefulness, impacting mental well-being?

- A) Circadian rhythm**
- B) Menstrual cycle
- C) Heart rate variability
- D) Digestive cycle

3. Spending time in nature, such as forests, is associated with a reduction in stress hormones like cortisol. This phenomenon is sometimes referred to as:

- A) Urban rejuvenation
- B) Forest bathing (Shinrin-yoku)**
- C) Desertification therapy
- D) Oceanic osmosis

4. Animal-assisted therapy, using domesticated animals like dogs, has been shown to be beneficial in reducing symptoms of anxiety and depression. Which neurotransmitter is often released in humans during positive social interactions with animals?

- A) Adrenaline
- B) Dopamine**
- C) Melatonin
- D) Histamine

5. The presence of green spaces in urban environments has been linked to improved mental health outcomes. This concept is sometimes studied under the umbrella of:

- A) Environmental engineering
- B) Urban planning for mental wellness**
- C) Geological surveying
- D) Atmospheric science

6. Some studies suggest that biodiversity, the variety of life in an ecosystem, can indirectly impact human mental health. A greater diversity of plant and animal life is generally associated with:

- A) Increased ecological fragility
- B) More resilient ecosystems**
- C) Higher levels of air pollution
- D) Decreased soil fertility

7. The study of how environmental factors can influence gene expression, without altering the DNA sequence itself, is known as epigenetics. How can environmental exposures, like stress or diet, affect mental health through epigenetic mechanisms?

- A) By directly changing the genetic code
- B) By turning genes on or off**
- C) By increasing the number of chromosomes
- D) By preventing cell division

8. Certain natural landscapes, like mountains or coastlines, are sometimes associated with feelings of awe and wonder. This can have a positive impact on mental states by:

- A) Increasing feelings of isolation
- B) Promoting self-centeredness
- C) Reducing rumination and increasing perspective**
- D) Encouraging aggressive behavior

9. The sound of natural elements, such as flowing water or bird songs, is often described as calming. This relates to how sensory input from the environment can affect the nervous system's state of:

- A) Alertness
- B) Sympathetic activation
- C) Parasympathetic activation**
- D) Fight-or-flight response

10. The seasonal affective disorder (SAD) is a type of depression that occurs in relation to changes in seasons, often linked to reduced exposure to:

- A) Wind
- B) Rainfall
- C) Sunlight**
- D) Humidity

11. Observing the resilience of nature, such as plants growing in harsh conditions, can offer metaphorical lessons that may be psychologically beneficial. This relates to the concept of:

A) Ecological determinism

B) Biomimicry

C) Environmental determinism

D) Anthropomorphism

12. The practice of mindful walking in natural settings, known as ecotherapy or nature therapy, aims to improve mental well-being by focusing attention on the present sensory experiences of the environment. This helps to reduce the impact of:

A) Future planning

B) Past regrets

C) Current distractions

D) Obsessive thoughts