

Nature and Mental Health Science

Mental Health And Environment · Practice Test · 8 Questions

1. Which specific physiological marker is measured to quantify the stress-reducing effects of 'Shinrin-yoku' (forest bathing)?

- A) Cortisol levels in saliva
- B) Adrenaline in cerebrospinal fluid
- C) Thyroid stimulating hormone
- D) Melatonin levels in hair

2. Research into the 'Biophilia Hypothesis' suggests that humans possess an innate tendency to seek connections with nature; which sensory input has been shown in longitudinal studies to most effectively reduce amygdala activity in urban dwellers?

- A) The frequency of bird vocalizations
- B) The visual geometry of fractal patterns in nature
- C) The specific scent of petrichor
- D) The rhythmic sound of ocean waves

3. In the context of 'Zoopharmacognosy' and animal self-medication, which behavior is frequently cited in behavioral ecology as an animal mechanism to maintain psychological and physical homeostasis?

- A) Ingestion of specific clay or soil to neutralize toxins
- B) Displaying aggression toward members of the same species
- C) Hibernation during suboptimal resource availability
- D) Social grooming to establish dominance hierarchies

4. What is the 'Attention Restoration Theory' (ART) primary mechanism for explaining how interaction with nature improves cognitive function and mental fatigue?

- A) The reduction of peripheral light interference
- B) The engagement of soft fascination which allows directed attention to rest
- C) The increase in dopamine production via ultraviolet exposure
- D) The psychological association with childhood memories

5. The study of 'Entrainment' in animal-assisted therapy refers to which physiological phenomenon observed between human patients and canine companions?

- A) The synchronization of heart rate variability
- B) The mirroring of vocal pitch and cadence
- C) The alignment of sleep-wake cycles
- D) The shared release of oxytocin during physical contact

6. Exposure to *Mycobacterium vaccae*, a soil-based bacterium, has been linked to potential mental health benefits in mice; what is the proposed mechanism of action?

- A) Activation of neurons that produce serotonin
- B) Increased production of vitamin B12 in the gut
- C) Suppression of inflammatory cytokines in the hippocampus
- D) Enhanced oxygen absorption in the lungs

7. Which environmental factor is identified in the 'Blue Mind' theory as having the most significant impact on inducing a meditative-like state in humans through neurochemical changes?

- A) The presence of negative ions near moving water
- B) The sound of wind through riparian vegetation
- C) The visual depth perception of horizontal horizons
- D) The chemical composition of mineral-rich water

8. What is the 'Nature Deficit Disorder' conceptualized impact on children's developmental psychology, as defined in environmental psychology literature?

- A) Impaired sensory integration and reduced attention span
- B) A decrease in physical endurance and muscle mass
- C) An inability to distinguish between domestic and wild animals
- D) A loss of innate fear responses to predators