

Name: _____

Date: _____

Answer questions 1–4 according to the passage below.

Sleep is a state of reduced mental and physical activity in which consciousness is altered and certain sensory activity is inhibited. Muscular activity falls markedly and interaction with the surroundings diminishes, yet the sleeping brain retains active patterns and remains far more responsive than it is in a coma. Sleep proceeds in repeating cycles during which the body alternates between rapid eye movement sleep and non-REM sleep; the former, despite its name, is also marked by a virtual paralysis of the body. Throughout these cycles most bodily systems enter an anabolic state that restores the immune, nervous, skeletal and muscular systems and sustains mood, memory and cognitive function. An internal circadian clock promotes sleep at night, when it is dark. The behaviour is highly conserved across animal evolution and probably dates back hundreds of millions of years, having originated as a means for the brain to clear itself of waste products; researchers now suspect that this cleansing, including the removal of amyloid, may be a core purpose of sleep. Artificial light has substantially altered human sleep, since the blue light emitted by screens disrupts the release of melatonin.

- According to the passage, sleep differs from a coma in that ----.
 - it involves no reduction in muscular activity whatsoever
 - the brain remains considerably more responsive during it
 - consciousness is entirely unaltered throughout its cycles
 - sensory activity is heightened rather than inhibited
 - it occurs only once the circadian clock has been disabled
- It can be understood from the passage that the name given to REM sleep is somewhat misleading because ----.
 - no eye movement can in fact be detected during that stage
 - the stage occurs only in animals that evolved recently
 - it is the stage in which the body is least likely to recover
 - dreaming has been shown to take place exclusively outside it
 - the stage is also characterised by a near-total paralysis of the body
- Which of the following best summarises the current view of why animals sleep?
 - Sleep exists chiefly to conserve energy during the hours of darkness
 - Sleep is a recent adaptation confined to mammals and birds
 - Sleep may have arisen so that the brain could clear metabolic waste, including amyloid
 - Sleep serves no measurable purpose beyond the regulation of mood
 - Sleep evolved primarily to protect animals from nocturnal predators
- It is stated in the passage that artificial light affects sleep because ----.
 - the blue light of screens interferes with the release of melatonin
 - bright rooms prevent the body from entering an anabolic state
 - outdoor lighting shortens the duration of non-REM sleep only
 - screens keep the muscular system active throughout the night
 - electric light resets the circadian clock to a daylight rhythm permanently

Answer questions 5–8 according to the passage below.

Obesity is a medical condition, regarded as a disease by numerous organisations, in which excess body fat has accumulated to a degree that harms health. A person is classified as obese when the body mass index, calculated by dividing weight by the square of height, exceeds thirty; the range between twenty-five and thirty is defined as overweight, and several East Asian countries apply lower thresholds. The condition is a major cause of disability and is correlated with cardiovascular disease, type 2 diabetes, obstructive sleep apnea, certain cancers and osteoarthritis. Its causes are at once individual, socioeconomic and environmental, ranging from diet and low physical activity to urbanisation, genetic susceptibility and endocrine disorders. Although many people attempt to lose weight and often succeed, maintaining that loss over the long term is rare. Changes to diet and exercise remain the principal treatments recommended by health professionals, and the World Health Organization stresses that making better dietary choices available and affordable is a societal responsibility rather than a private one. In 2022 more than a billion people were living with obesity, over twice the number of adult cases recorded in 1990.

- According to the passage, a body mass index of twenty-seven would be classified as ----.
 - obese under every national standard currently in use
 - within the range regarded as healthy in all countries
 - obese only where endocrine disorders are also present
 - overweight, though some East Asian thresholds would classify it differently
 - impossible to interpret without a measurement of body fat
- It can be inferred from the passage that long-term treatment of obesity is difficult because ----.
 - health professionals rarely recommend changes to diet or exercise
 - the condition has no measurable connection to other diseases
 - weight that has been lost is seldom kept off over time
 - body mass index cannot be calculated reliably in adults
 - the causes of the condition are entirely genetic in origin
- Which of the following best expresses the World Health Organization's position as described in the passage?
 - Obesity should not be classified as a disease at all
 - Responsibility for better dietary choices rests with society, not the individual alone
 - Surgical intervention ought to precede any change of diet
 - National thresholds for obesity should be raised uniformly
 - Physical activity matters far less than genetic susceptibility
- What does the passage mainly focus on?
 - The surgical procedures now available for reducing stomach volume
 - The cultural attitudes that have historically surrounded body weight
 - A comparison of obesity rates between adults and children since 1990
 - The endocrine mechanisms through which appetite is regulated
 - The definition, causes, consequences and management of obesity