

Attempt all the MCQ on this exam. Marks 70

1. Which of the following is a problem associated with many contemporary movement quality assessment instruments?
 - A. They are low-cost
 - B. They are easy to learn
 - C. They are quick to administer
 - D. They measure multiple attributes with a single number

2. A core premise regarding a patient's Wellness and Health status for a practicing physiotherapist is that it:
 - A. Determines the patient's ultimate prognosis for recovery.
 - B. Affects what you can do with a given patient or client.
 - C. Dictates the need for a mandatory referral to a multidisciplinary team.
 - D. Only influences the long-term, but not the short-term, goals of care.

3. The three primary key areas of focus for Population Health action are to:
 - A. Analyse, establish priorities, and Create policies.
 - B. Evaluate, define risk factors, and Implement strategies.
 - C. Quantify prevalence, determine causes, and Develop programs.
 - D. Measure/quantify, understand determinants, and Identify interventions.

4. A patient shows signs of undernutrition but is adamant that his caloric intake is adequate. What would be a reasonable suspicion in this case?
 - A. The patient may suffer from secondary (disease-mediated) undernutrition
 - B. The patient is at high risk for metabolic syndrome
 - C. The patient's water supply is likely contaminated
 - D. The patient is most likely a citizen of a country in which diseases of affluence are the primary public health concern

5. As nations develop, they often undergo what's referred to as a "nutritional transition". During this time, public health concerns related to nutrition involve:
 - A. Undernutrition
 - B. Overnutrition
 - C. Both undernutrition and overnutrition
 - D. Neither undernutrition nor overnutrition

6. In the context of nutrition, minerals are best described as:
 - A. Calorie-dense macronutrients
 - B. Micronutrients that perform important metabolic functions

- C. Nonessential compounds
 - D. Primarily fat soluble
7. The World Health Organization recommends that adults consuming 2,000 kcal/day avoid free sugar consumption in excess of what upper limit?
- A. 1% of caloric intake
 - B. 5% of caloric intake
 - C. 10% of caloric intake
 - D. 20% of caloric intake
8. A patient of yours reports using alcohol to help her get to sleep. What might you tell this patient regarding the use of alcohol for such a purpose?
- A. Alcohol is effective, but don't drink so much that you'll have to wake up to urinate
 - B. Alcohol helps with sleep, but you need to consume several drinks for the effects to last throughout the night
 - C. While alcohol can get you to sleep more quickly, it tends to increase arousal after a few hours
 - D. Alcohol should not be consumed within 2 hours of bed time
9. A patient of yours recently purchased a "wearable" device that purports to measure sleep quality by sensing vibrations from his bed. What might you tell this patient regarding such a device?
- A. The device needs to be placed underneath your mattress or pillow for optimal reliability
 - B. Lack of motion does not necessarily mean your sleep is good, so a device that measures motion may give you a false impression of good sleep quality
 - C. You should use the device to test the effects of a blue light filter in helping you get better sleep
 - D. You need to ensure the device is properly positioned periodically throughout the night
10. Which of the following best describes a disadvantage associated with using a single composite score, as opposed to multiple item scores, when conducting movement quality assessments?
- A. The composite score is influenced by multiple underlying attributes and therefore may not have a consistent meaning across individuals
 - B. The composite score is a single numerical quantity
 - C. A composite score is most often provides ordinal (rank order) information
 - D. Two individuals with the same composite score are guaranteed to be equivalent in movement quality

11. A physiotherapist is assisting a patient perform an exercise by randomly providing gentle perturbations while the patient tries to maintain balance. What is the likely focus of this exercise?
- A. Minimizing dual-task interference
 - B. Improving dynamic balance reach/excursion range
 - C. Decreasing time to stabilization during landing
 - D. Improving reactive balance
12. As societies develop economically, infectious diseases tend to account for a smaller proportion of the public health burden. All of the following are societal attributes that contribute to infectious disease mitigation except:
- A. Wastewater treatment
 - B. Public health knowledge
 - C. Immunization infrastructure
 - D. Transition from dense, urban living to rural living
13. Diabetic neuropathy commonly impairs nerve function in the lower extremities and can adversely affect balance. Which component of balance is most directly affected?
- A. Proprioception (peripheral somatosensation)
 - B. Vision
 - C. Vestibular sensation
 - D. Central sensory reweighting
14. Movement quality instruments are performance-based, as opposed to outcome-based, assessments of motor behavior. What does this mean?
- A. They evaluate the quality of the movement itself
 - B. They evaluate the movement based on how well the movement served a purpose
 - C. The movement is evaluated based on the subject's own opinion
 - D. The movement is evaluated automatically by an objective laboratory device
15. A patient of yours completes the Sensory Organization Test, a computerized dynamic posturography assessment that attempts to identify sensory problems by moving the stance surface and/or visual surround to challenge balance control. Your patient's test results indicate a balance impairment that is most likely isolated to her vestibular system. Which of the patterns below best reflects her results?
- A. Relatively low sway in test conditions challenging vision and proprioception; relatively high sway in the conditions challenging vestibular function
 - B. Relatively high sway in test conditions challenging vision and proprioception; relatively low sway in the conditions challenging vestibular function
 - C. Relatively high sway in all testing conditions
 - D. Relatively low sway in all testing conditions

16. Which of the following assistive devices would confer the greatest increase on an individual's base of support in bipedal standing?
- A. A one-handed cane
 - B. A four-point, two-handed walker
 - C. A wide-soled shoe
 - D. A vibratory stimulator worn just above the ankle
17. Your patient recently bought a consumer-grade sleep tracking device that reports a sleep number after each night of sleep. The manufacturer indicates that the device calculates this sleep number using a proprietary algorithm. Which of the following is most likely true regarding your patient's new device?
- A. The fact that the algorithm is proprietary is a good indication that the device provides high-quality information
 - B. It is difficult to assess the quality of the sleep number because the company won't share how the number is derived
 - C. The sleep number is a suitable substitute for a polysomnography report
 - D. The sleep number is based on a validated sleep scale like the Karolinska Sleepiness Questionnaire
18. As you learned, individual questions in patient-reported outcomes (PROs) surveys are also referred to as "items". PROs that use calibrated item banks offer which of the following advantages over traditionally validated surveys/questionnaires?
- A. Calibration ensures that the question is worded appropriately for a given population
 - B. Only calibrated items can be used for medical diagnoses
 - C. Fewer response items are required and valid scores can be calculated regardless of which specific items were used
 - D. Calibrated items ensure that patients will not be offended or embarrassed by the phrasing of the question
19. Balance involves all of the following sensory and sensory processing components except:
- A. Vision
 - B. Vestibular sensation
 - C. CNS weighting of sensory signals
 - D. Smell
20. For most adults, the theoretical maximum range of anterior-posterior (AP) displacement of the center of mass is covered by an arc of 12.5° . If person A tends to sway 11° (AP) in quiet standing and person B tends to sway 6° (AP) in quiet standing, what could be said regarding the balance capacity of these two individuals?
- A. Person A has better balance because Person A uses more of the range

- B. Person B has better balance because Person B uses more of the range
- C. Person A has better balance because Person A uses less of the range
- D. Person B has better balance because Person B uses less of the range

21. Movement quality screening instruments are used to identify which of the following?

- A. Serious medical conditions
- B. Performance capabilities
- C. Degenerative neurological disorders
- D. Limitations that may reduce one's preparedness for physical activity

22. A physiotherapist reads a short list of words aloud to a patient. Next, the physiotherapist administers a balance test. Finally, the physiotherapist administers a second balance test during which the patient is asked to recite the list of words she had read earlier. What is most likely being evaluated by the assessor?

- A. The extent to which a secondary task interferes with the patient's balance
- B. The patient's balance excursion range
- C. The patient's reactive stabilization capacity
- D. The extent to which the patient is hip-dominant vs. ankle-dominant

23. Patient-reported outcomes (PROs) involve asking questions to patients to get information about their subjective experience. Which of the following is a benefit of using PROs as opposed to physical or laboratory tests?

- A. PROs allow us to quantify phenomena that aren't measurable using objective methods
- B. PROs are guaranteed to be valid and reliable for different patients
- C. PROs do not require formal development and validation
- D. PROs provide objective information that can't be influenced by the patient's thoughts, sensations, feelings, perceptions, or emotions

24. Prolonged exposure to excessive musculoskeletal loading in occupational settings can lead to injury and disability. Reducing the occurrence of such injuries and disabilities is most closely associated with which of the following disciplines?

- A. Accident prevention
- B. Ergonomics
- C. Violence prevention
- D. Customer service

25. A workplace safety intervention aims to promote use of eye and face protection in hazardous areas. What health beliefs might be emphasized to increase the likelihood of adopting the intended behaviors?
- A. Workplace eye and face injuries are rare regardless of whether or not protection is used
 - B. Workplace eye and face injuries are often severe and debilitating
 - C. Use of eye and face protection is expensive and time-consuming
 - D. Use of eye and face protection only slightly decreases one's risk of severe injury
26. As a society's public health priorities evolve due to economic growth and population density/urbanization, the primary disease burden shifts. This shift is best characterized by a transition from a predominant focus on:
- A. Mother/child safety issues to heart disease and stroke prevention.
 - B. Occupational health hazards to motor vehicle safety.
 - C. Infectious diseases to lifestyle/non-communicable diseases (NCDs).
 - D. Food safety and basic nutrition to the development of chronic pain management programs.
27. Heart disease and stroke are noted to be increasingly present in developing countries and responsible for a substantial loss of Disability-Adjusted Life Years (DALYs). Based on the provided content, a physiotherapist involved in a primary prevention public health program should prioritize interventions targeting which of the following three most critical modifiable risk factors?
- A. Genetic factors, age, and lipids management.
 - B. Food safety, physical activity, and heart disease prevention.
 - C. Blood pressure, smoking, and obesity management.
 - D. Immunization, diabetes, and economic growth.
28. Public health priorities are continuously evolving. Which of the following is explicitly listed in the provided material as a driving factor for the evolution of public health priorities?
- A. Public health knowledge.
 - B. Political stability and government structure.
 - C. Technological advancements in diagnostic imaging.
 - D. Gross National Income (GNI) per capita.

29. Which one of the following factors, increasingly prevalent in developing countries and a key driver of DALYs lost from Heart Disease and Stroke, is most directly targeted by the physical activity and rehabilitation strategies central to a physiotherapist's practice?
- A. Lipid profile management through pharmacological intervention.
 - B. Blood pressure control through dietary and stress management techniques.
 - C. Obesity reduction through prescribed exercise and lifestyle modification.
 - D. Smoking cessation with motivational interviewing and pharmacological support.
30. The burden of Heart Disease and Stroke is quantified as substantial (10-18%) DALYs lost. In population health measurement, what does one Disability-Adjusted Life Year (DALY) fundamentally represent?
- A. The average number of years lived with a specific disability following a chronic illness.
 - B. The total number of years of life lost due to premature mortality in a given population.
 - C. The sum of Years of Life Lost (YLL) due to premature death and Years Lived with Disability (YLD).
 - D. The economic cost and total productivity lost due to illness in a developing country
31. The stark disparity in maternal/child safety is highlighted by high child death rates linked to malnutrition and lack of education. Which of the following is the most upstream and systemic determinant responsible for the continued prevalence of both unsanitary labor practices and child malnutrition in developing nations?
- A. Insufficient numbers of highly specialized medical professionals like paediatricians.
 - B. Widespread lack of foundational education and sanitation/appropriate medical resources.
 - C. High prevalence of addiction and substance abuse disorders in the parenting population.
 - D. Environmental exposure to outdoor air pollution from industrial activity.
32. Indoor air, outdoor air, and water as critical environmental exposures. For a physiotherapist advising a patient with a chronic respiratory condition (e.g., COPD or asthma) in a high-risk area, an education program to mitigate indoor air pollution from cooking should be prioritized as closely as the management of which other primary environmental health risk mentioned?
- A. Occupational safety hazards in non-industrial settings.

- B. Transportation safety measures for reducing accident risk.
 - C. Waterborne diseases from contaminated drinking sources.
 - D. Health impacts related to obesity and physical inactivity
33. Which health metric is primarily used to quantify the net benefit or utility of a specific therapeutic intervention or treatment by combining both the duration and perceived value of life?
- A. Disability-Adjusted Life Year (DALY)
 - B. Quality-Adjusted Life Year (QALY)
 - C. Potential Years of Life Lost (PYLL)
 - D. Healthy Life Expectancies (HLE)
34. The Disability-Adjusted Life Year (DALY) is a key indicator that quantifies the overall burden of a specific health condition. What are the two primary components it quantifies years lost to?
- A. Years lost due to premature mortality and years of life spent with inadequate care.
 - B. Years of Life Expectancy (LE) and the difference compared to Healthy Life Expectancy (HLE).
 - C. Years lost to death and years lost to disability.
 - D. Disease prevalence in a population and the incidence of related risk factors.
35. Data suggests that Life Expectancy (LE) may be rising faster than Healthy Life Expectancy (HLE). Given this trend, what is the primary goal or descriptive purpose of the HLE metric at the population level?
- A. To determine the financial cost-effectiveness of new healthcare technologies.
 - B. To describe whether or not longer life spans are also coinciding with longer periods of good health.
 - C. To quantify the specific years of life lost due to a defined public health risk.
 - D. To provide a definitive measure of life quantity without any quality adjustment.
36. According to the Constitution of the World Health Organization (WHO), which of the following best defines Health?
- A. The absence of physical disease or infirmity.
 - B. A complete state of physical well-being.
 - C. A state of complete physical, mental, and social well-being.
 - D. A hypothetical structure encompassing physical and mental fitness
37. A community physiotherapy clinic initiates a 4-week program to teach local elderly residents about the importance of bone health, proper home modification for fall prevention, and

techniques for safe lifting. This targeted intervention, primarily focused on increasing participants' knowledge and understanding to improve health actions, most closely aligns with the definition of:

- A. Health Promotion
 - B. Health Education
 - C. Health Behaviour
 - D. Wellness Lifestyle
38. A degree-level physiotherapy student consistently chooses to take the stairs instead of the elevator, recognizing it as a small, positive action that contributes to their cardiovascular health and fitness. This specific, routine, individual action related to health is the most direct example of which core concept?
- A. Health Education
 - B. Health Promotion
 - C. Health Behaviour
 - D. Psychomotor Domain
39. The comprehensive and holistic concept of Wellness is characterized by consistent, balanced growth in which set of distinct aspects of human existence?
- A. The physical, cognitive, psychomotor, and affective domains.
 - B. The individual, group/community, and policy/societal levels.
 - C. The physical, spiritual, emotional, intellectual, social, and psychological dimensions.
 - D. The personal, subjective perceptions regarding one's ability to increase health.
40. An individual's personal decision to undergo pre-participation screening (a physical examination) before engaging in a new sports activity, with the goal of identifying potential lifestyle risk factors, is classified as an intervention at which level?
- A. Policy/Societal level
 - B. Affective domain level
 - C. Individual level
 - D. Group/Community level
41. A patient with chronic low back pain frequently misses their prescribed exercise sessions. When asked, they state, "I know the exercises are supposed to help, but I'm just not sure if they're worth the effort, and honestly, I might try them next month." Based on the Transtheoretical Model, this patient is most likely in which stage of change regarding their exercise adherence?
- A. Action
 - B. Contemplation
 - C. Preparation

D. Pre-Contemplation

42. Which of the following is the most direct clinical application for a physiotherapist using measurement tools?
- A. Promoting scientific knowledge by gathering data for research.
 - B. Reducing the likelihood of a legal liability claim through quantifiable documentation.
 - C. Tracking changes in a patient's status over time to evaluate intervention efficacy.
 - D. Understanding the patient's underlying disease pathology and etiology.
43. The use of specific dimensions like Dynamic Flexibility, Speed of Arm Movement, and Static Balance (from Fleishman's Original Fitness Dimensions) highlights that complex constructs are:
- A. Inherently unstable and highly subjective.
 - B. Composed of many distinct, independent components.
 - C. Primarily influenced by biomechanical factors only.
 - D. Exclusive of any cognitive or coordinative elements.
44. The concept that "developing a given adaptation requires a tradeoff in terms of other adaptations" is based on the idea that:
- A. Exercise must always be high-intensity to stimulate any change.
 - B. The principle of specificity dictates that only the trained component will adapt.
 - C. Physiological resources are finite, and not all adaptations can be optimized simultaneously.
 - D. Genetic factors are the only true determinant of adaptation limits.
45. In exercise programming, if a patient performs 3 blocks of the Push Up/Press Up exercise, with each block consisting of 10 cycles of the movement, what do the numbers 3 and 10 respectively represent?
- A. 3 = Repetitions, 10 = Sets
 - B. 3 = Duration, 10 = Time
 - C. 3 = Sets, 10 = Repetitions
 - D. 3 = Volume, 10 = Intensity
46. In the context of the Health Belief Model, a physiotherapist provides a patient with clear, evidence-based data showing that continuing to lift heavy objects using poor body mechanics will result in a herniated disc that requires major surgery and a prolonged, painful recovery. This intervention is primarily aimed at influencing which construct of the patient's mental cost/benefit analysis?
- A. Perceived Susceptibility

- B. Perceived Severity
- C. Perceived Benefits
- D. Perceived Barriers

47. A physiotherapist structures a group exercise class to ensure that participants feel a strong sense of mastery over the movements, a feeling of belonging with the group, and a sense that the exercise is something they have chosen to do. The goal is to maximize intrinsic motivation and lasting behavior change through the promotion of which three core psychological needs?
- A. Self-efficacy, Intentions, and Perceived Norms
 - B. Susceptibility, Severity, and Cues to Action
 - C. Competence, Relatedness, and Autonomy
 - D. Preparation, Action, and Maintenance
48. A patient who has consistently been practicing their prescribed home exercise program for six years now reports that they feel zero temptation to stop the habit, even during periods of high personal or professional stress, and they now possess maximum self-efficacy regarding maintaining this specific behaviour. According to the Transtheoretical Model, this state of complete integration and confidence represents the.
- A. Action Stage
 - B. Maintenance Stage
 - C. Termination Stage
 - D. Relapse Prevention Stage
49. The broad field of study focused on understanding and predicting behaviour, and on developing behavioural interventions, ultimately aims to affect behavioural factors contributing to which of the following set of unwanted outcomes?
- A. Lack of physical activity, low self-efficacy, and decreased social support.
 - B. Acute injury, chronic disease, and poor movement patterns.
 - C. Premature death, disability, injury, and pain.
 - D. Ambivalence, low perceived benefits, and high perceived barriers.
50. Which of the following principles is a core component of motivational interviewing, as opposed to a directive or hierarchical clinical approach?
- A. Directive
 - B. Collaborative
 - C. Paternalistic
 - D. Evaluative
51. When developing a widespread public health campaign for a community, which communication strategy provides the most effective outcome at the highest logistical cost?
- A. Mass Media: Generic health messages broadcast via radio and television.
 - B. General Communications (Print): Non-specific health brochures distributed across various clinics.

- C. Electronic Media: Standardized email reminders and educational links sent to all registered participants.
 - D. Tailored Communications (Print/Electronic): Personalized health information based on individual assessment data.
52. What is the primary therapeutic goal that differentiates Motivational Interviewing from traditional health education modules or classes?
- A. To ensure the client can accurately recall and restate the physiological benefits of the new behavior.
 - B. To establish strong extrinsic incentives, such as rewards or prizes, to reinforce initial compliance.
 - C. To create and strengthen the client's intrinsic motivation for sustainable behavior change.
 - D. To systematically provide explicit directives and a step-by-step action plan for immediate implementation.
53. Which type of public intervention strategy is uniquely powerful because it can be effective regardless of an individual's conscious attitudes or beliefs towards the target behavior?
- A. Mass Media Campaigns.
 - B. Built Environment Interventions.
 - C. Small Group Education Modules.
 - D. Policy Interventions.
54. An outcome measure instrument, such as a Pain Catastrophizing Scale, is considered reliable when:
- A. It accurately measures the underlying construct it was designed for, like pain catastrophizing.
 - B. It can be completed in under 5 minutes, minimizing patient and clinician burden.
 - C. It yields consistent results when administered repeatedly under stable conditions.
 - D. It is sensitive enough to detect subtle, clinically meaningful changes over time.
55. In the context of Patient-Reported Outcome Measures (PROs), although a patient's response to an item is inherently subjective, the process of developing a robust instrument allows us to:
- A. Elevate the measurement to an absolute, objective truth by standardizing the scoring protocol.
 - B. Approximate a proper measurement by defining the construct and the possible measurement values.
 - C. Eliminate the need for additional qualitative data by using psychometric analysis.
 - D. Substitute the patient's perspective entirely with the clinician's objective assessment.

56. When evaluating a new functional outcome measure for hip osteoarthritis, a key stakeholder suggests that the instrument must function like any other measurement tool (e.g., a goniometer) by measuring the specific, defined concept of hip function. This statement is primarily emphasizing the need for the instrument to demonstrate high:
- A. Reliability
 - B. Time efficiency
 - C. Validity
 - D. Precision
57. A physiotherapy patient reports significant sleep disturbance. Based on the material's list of Common Sleep Disturbances, which set of three conditions are all specifically listed under the umbrella of pregnancy-related issues?
- A. Pressure on the diaphragm, hypertension, and back pain.
 - B. Heartburn, nausea, and shift work.
 - C. Bladder pressure, fetal kicking, and postpartum depression.
 - D. Infant feeding, spinal stenosis, and GERD.
58. Which of the following interventions is specifically noted as being within the physiotherapy purview for managing sleep disturbances, with the caveat that it may require specialized training?
- A. Safe prescription of over-the-counter pharmacological agents to treat acute insomnia.
 - B. Utilizing principles of Cognitive Behavioral Therapy (CBT) to promote sleep hygiene.
 - C. Conducting advanced diagnostic polysomnography to rule out major sleep pathology like apnea.
 - D. Initiating high-intensity aerobic exercise protocols to enhance cardiorespiratory function and sleep.
59. Which characteristic best defines a Static balance control task?
- A. The system is actively attempting to move the center of mass close to the boundaries of the base of support.
 - B. The control goal involves maintaining stability during an intentional, specific functional movement or task.
 - C. The primary challenge to stability stems from self-generated, physiological sources of movement or postural sway.
 - D. The strategy requires a swift, reactive motor response to an unpredictable, sudden external disturbance.
60. A patient is asked to stand quietly in place on a stable force platform. The constant, low-amplitude displacement of the center of pressure recorded over time is best described in the provided text as the manifestation of:

- A. Anticipatory control mechanisms, as the sway is a highly predictable pattern.
 - B. The requirement to perform a Dynamic balance task, which by definition includes movement.
 - C. Internal perturbations, which are inherent to the stated goal of "No intention to move."
 - D. The patient engaging in a low-level "Game" task to achieve "Time on target."
61. In the context of fall-prevention training using assistive devices, what is the most specific benefit identified for a cane versus a walker, according to the material?
- A. Canes provide a greater increase to the Base of Support (BOS), and Walkers provide some proprioceptive enhancement.
 - B. Canes primarily provide some support, and Walkers primarily help in reducing the patient's fear of falling.
 - C. Canes primarily increase proprioception, and Walkers provide a greater increase to the Base of Support (BOS).
 - D. Both Canes and Walkers primarily enhance strength and power, but walkers also increase flexibility.
62. Primary undernutrition is most accurately distinguished from secondary undernutrition by its defining cause, which is:
- A. Nutritional insufficiency mediated by an underlying infectious or communicable disease.
 - B. An inadequate intake of food and associated calories/nutrients.
 - C. A deficiency characterized by excessive caloric density and insufficient nutrient density.
 - D. A nutritional deficit resulting from structural discrimination against women and social conflict.
63. Which of the following is specifically identified in the material as a Social contributing factor to undernutrition, distinct from geographical or direct disease-related causes?
- A. Poor urban areas due to limited access to healthcare.
 - B. Lack of access to adequate caloric and nutrient intake.
 - C. Structural discrimination against women.
 - D. Excessive calorie density combined with insufficient nutrient density.
64. A fatty acid that contains two or more double bonds in its chemical structure is correctly classified according to the provided material as which type of fat?
- A. Saturated
 - B. Mono-unsaturated
 - C. Polyunsaturated
 - D. Essential

65. In addition to regularly screening diet and nutrition status, Which other two physiological parameters?
- A. Appetite level and functional ability
 - B. Body Mass Index and ADL ability
 - C. Physical activity and muscle mass
 - D. Perceptual or LOC deficits and eating behaviors
66. Areas characterized as food deserts are associated with a tendency toward which specific pattern of dietary change?
- A. Decreased intake of total calories and simple carbohydrates.
 - B. Increased intake of vitamins, minerals, and protein.
 - C. Increased intake of fat, sodium, and sugar, alongside decreased intake of fiber.
 - D. Decreased intake of sodium and fat, alongside increased intake of essential amino acids.
67. The term that best describes the running sleep-wake balance that functions to promote sleep after long periods of wakefulness is:
- A. Circadian rhythms, which are distributed cellular and system functions that sync with external environmental cues.
 - B. Reticular formation activity, which is the firing of cells in the pons just before sleep onset.
 - C. Sleep-wake homeostasis, which is a balance mechanism designed to promote sleep after extended periods of wakefulness.
 - D. Memory consolidation, which is a hypothesized process that opportunistically occurs during sleep.
68. Which of the following lifestyle recommendations for optimizing sleep hygiene relates to the specific endocrine-related effect mentioned in the text regarding working in bed?
- A. Avoiding the use of blue light filters, as they are not currently effective at reducing light-induced cortisol release.
 - B. Creating consistent pre-bed relaxation patterns to reduce the production of the stress hormone norepinephrine.
 - C. Not working in bed, as this activity is associated with the suppression of the hormone melatonin.
 - D. Avoiding exercising too close to bedtime, which can increase metabolic rate and lower the natural level of serotonin.
69. Which statement best describes the primary dynamic function of the Center of Pressure (COP) in maintaining an inherently unstable upright posture?
- A. The COP is a static projection of the COM onto the ground, defining the exact Base of Support (BOS).

- B. The COP constantly attempts to find the ground, which dictates the direction of the body's momentum.
 - C. The COP actively generates corrective ground reaction forces to push the Center of Mass (COM) back toward a stable position.
 - D. The COP must remain strictly immobile in the geometric center of the Base of Support at all times.
70. In clinical balance assessment, the Functional Limits of Stability (FLOS) for a patient performing a complex dual task (e.g., standing while solving a math problem) is most likely to be:
- A. Equal to the theoretical, biomechanical Limits of Stability (LOS) for that Base of Support (BOS).
 - B. Reduced compared to the theoretical Limits of Stability (LOS) because of suprapostural (cognitive) demands.
 - C. Greater than the theoretical Limits of Stability (LOS) due to the increased attentional focus on the task.
 - D. Entirely independent of the Base of Support, as it is determined solely by the person's confidence.