



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCE
DEPARTMENT OF REHABILITATION MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
END OF SEPT-DECEMBER 2024 TRIMESTER EXAMINATIONS**

UNIT CODE: PHT 216 UNIT NAME: Wellness and Health Promotion (TJC Upgrading)

DATE: Monday/ 02/ December

TIME: TWO HOURS

START: 6pm STOP: 8.30pm

INSTRUCTIONS (physical exams)

- 1. Do not write on this question paper**

(Marks and questions distribution as per program curriculum.)

INSTRUCTIONS (Online examinations)

1. This exam is marked out of 70 marks
2. This Examination comprises 3 Sections
3. This online exam shall take 2 Hours
4. Late submission of the answers will not be accepted
5. Ensure your web-camera is on at all times during the examination period
6. No movement is allowed during the examination
7. Idling of your machine for 5 min or more will lead to lock out from the exam
8. The Learning Management System (LMS) has inbuilt integrity checks to detect cheating
9. Any aspect of cheating detected during and or after the exam administration will lead to nullification of your exam
10. In case you have any questions call the invigilator for this exam on Tel. 0705833434 and or the Head of Department on Tel 0720491032
11. For adverse incidences please write an email to: amiu.examinations@amref.ac.ke

1. For general wellness and health promotion, how much aerobic exercise is considered sufficient for a typical, healthy adult?
 - A. 30 – 60 minutes per day of moderate-to-vigorous exercise
 - B. 120 – 240 minutes per day of vigorous exercise
 - C. 10 – 15 minutes per day of light-to-moderate exercise
 - D. 30 – 60 minutes per day of light exercise

2. A healthcare professional uses evocative questioning during a motivational interview. What is the likely purpose of this technique?
 - A. To encourage intrinsically motivated change
 - B. To expose the patient's dishonesty
 - C. To instill a sense of responsibility in the patient
 - D. To gather information for a diagnosis

3. A good survey item/question should be characterized by all of the following except:
 - A. The question is vaguely worded
 - B. The question is non-leading
 - C. The question is phrased using plain language
 - D. A clear, complete range of response options is offered

4. Which of the following would likely not be an effective recommendation for a patient seeking to improve sleep?
 - A. Use a blue light filter to stream video in bed
 - B. Create a consistent routine for winding down
 - C. Avoid caffeine in the afternoon
 - D. Limit alcohol consumption

5. A wellness client expresses her goal of maximizing muscular endurance. What would be the most appropriate repetition range to recommend based on your knowledge of adaptations to resistance training?
 - A. 1-2
 - B. 6
 - C. 3-5
 - D. 12 - 20

6. Which of the following represents the recommended macronutrient breakdown for the general population?
 - A. 20% CHO, 35% Protein, 45% Fat
 - B. 55% CHO, 15% Protein, 30% Fat
 - C. 80% CHO, 15% Protein, 5% Fat

D. 30% CHO, 45% Protein, 25% Fat

7. Other things constant, screening an employee population tends to contribute to health at the individual level by raising awareness.
- A. True
 - B. False
8. According to the transtheoretical model of behavior change, indifference toward a known health-related problem would be most suggestive of which stage of readiness:
- A. Pre-contemplation
 - B. Action
 - C. Maintenance
 - D. Termination
9. Which of the following best describes a benefit of using a subjective measure to assess wellness?
- A. They provide direct measurement of wellness and health
 - B. They require extensive training
 - C. They tend to be more precisely quantifiable
 - D. They tend to be more patient-oriented
10. You administer the Berg Balance Scale to your patient. The final total score is 40. What is the most appropriate course of action in this situation?
- A. Your patient is independent. No further action required.
 - B. Consider recommending an assistive device
 - C. Recommend your patient use a wheelchair
 - D. Begin plyometric training to improve balance
11. The BBC recently reported on "pain bias", in which healthcare providers tend to downplay symptoms reported by women. This exemplifies which category of healthcare disparities?
- A. Environmental
 - B. Socioeconomic
 - C. Institutional
 - D. Access
12. In typical scenarios, an effective health screen or biometric screen:
- A. Is feasible and reasonably sensitive/specific
 - B. Identifies every positive case; cost is not object
 - C. Offers definitive proof that an individual is healthy when the result is negative
 - D. Only needs to be administered to a fraction of the population of interest

13. What is the most important concern related to nutrition in patients undergoing chemotherapy?
- A. Overreliance on sugary foods
 - B. Dysphagia
 - C. Inaccurate recall of eating habits
 - D. Malnutrition
14. In resistance training for physical fitness, training *intensity* refers to:
- A. The heaviness of the resistive load
 - B. The speed of exercise repetitions
 - C. How many days per week a person trains
 - D. The individual's breathing rate after completing a set
15. A local government approves a plan to build an outdoor fitness and recreation park. This would be an example of what kind of health intervention?
- A. A health behaviour intervention
 - B. A health education intervention
 - C. A health promotion intervention
 - D. A health perception intervention
16. Which of the following epidemiological quantities would best reflect the health consequences attributable to a specific disease?
- A. Life Expectancy
 - B. Healthy Life Expectancy
 - C. Disability-Adjusted Life Years (DALYs)
 - D. Quality-Adjusted Life Year
17. In the epidemiology of epidemics and pandemics, the herd immunity threshold depends on all of the following except:
- A. Transmission probability
 - B. Duration of infectiousness
 - C. Contact rate
 - D. Virulence
18. According to health behaviour theories such as Self Determination Theory and the Health Beliefs Model, individuals are most likely to adopt positive health behaviours when they exhibit high levels of:
- A. Self-efficacy
 - B. Self-importance
 - C. Self-doubt

D. Self-consciousness

19. The most informative method for analysis of sleep physiology is:

- A. Polysomnography
- B. Smartphone Applications
- C. Sleep Logs
- D. Sleep Questionnaires

20. From the following, select the item that best represents an example of workplace accident prevention:

- A. locking doors
- B. practicing regular fire drills
- C. using spotters during ladder tasks
- D. installing surveillance cameras

21. As individuals age, sleep changes with respect to:

- A. neither quality nor quantity
- B. quantity
- C. both quality and quantity
- D. quality

22. The Social Cognitive Theory of behavior change describes a process in which:

- A. Personal, behavioral, and environmental factors mutually influence one another
- B. Society-level perceptions are the only determinant of health behaviour
- C. Individual factors contributing to health behaviour are isolated from one another
- D. Societal factors will ultimately be the most cost effective focus on health intervention

23. In the perspective of many movement quality screening systems, movement behaviors should be assessed with respect to:

- A. An ideal standard
- B. Variability of movement
- C. Perceived difficulty
- D. An individual's understanding of the rating criteria

24. How might epidemic theory benefit public health approaches to intervening on non-communicable diseases (NCDs)?

- A. NCDs that behave like epidemics may respond to mitigation approaches traditionally aimed at communicable epidemics
- B. NCDs are unrelated to the science of epidemics
- C. NCDs naturally limit behaviors that increase the risk of disease transmission
- D. Communicable disease epidemics decrease the likelihood of NCDs

25. The Sensory Organization Test, a method of administering computerized dynamic posturography, progressively isolates sensory inputs involved in balance control via:

- A. Sway-referenced motion of the plate and/or visual surround
- B. Use of visual conflict domes and foam surface pads
- C. Random tilt motion of the stance surface
- D. Increasing the magnitude stance surface perturbations

26. Which of the following is not hypothesized to be a component of physical fitness?

- A. Laxity
- B. Speed
- C. Strength
- D. Power
- E. Agility

27. According to the Health Beliefs Model, an individual espousing which of the following perception patterns will be least likely to motivate action in response to an illness or injury?

- A. High perceived threat of illness, low perceived efficacy of intervention
- B. High perceived threat of illness, high perceived efficacy of intervention
- C. Low perceived threat of illness, low perceived efficacy of intervention
- D. Low perceived threat of illness, high perceived efficacy of intervention

28. The STAR Excursion Balance Test (or Y Balance Test) may require several practice trials prior to recording a reliable score.

- A. True
- B. False

29. A patient of yours who lives in a food desert is recovering after an ACL tear that will not require surgery. What would you be most concerned about regarding this patient's nutrition?

- A. Caloric deficit
- B. An excessively inflammatory diet
- C. A macronutrient ratio that is insufficient in protein
- D. Metabolic derangement

30. The Functional Movement Screen emphasizes and outcome-based, as opposed to a performance-based, perspective of motor control.

- A. True
- B. False

31. _____ is a low-cost method of assessing body composition and is also reasonably reliable.

- A. DXA Scan
- B. Circumference measurements
- C. Skinfold thickness measurements
- D. Bioelectrical impedance

32. Ergonomics is:

- A. Preventing damage to high-cost equipment
- B. Fitting the job to the person
- C. Identifying employees at risk of chronic healthcare problems
- D. Mitigating all risk of accidents

33. Which of the following would *not* be an example of vector-borne disease transmission?

- A. Bacterial infection associated with a tick bite
- B. Sexual transmitted viral infection
- C. Parasitic infection caused by mosquito bite
- D. Coli infection from consumption of contaminated water

34. Your patient complains of abnormal fatigue during the day, but gets very high scores on a smart device that measures sleep. What might you tell her during your consultation?

- A. Sleep trackers may be able to identify large movements or noises, but many kinds of sleep problems can go undetected by consumer-grade instruments.
- B. Good scores on sleep trackers rule out sleep disturbance and we should therefore focus on other etiologies.
- C. A "high" score actually means that your sleep is poor. You may benefit from benzodiazepines or anti-depressants.
- D. The sleep tracker may be measuring the sleep of your partner or pet; further testing with your device will be required before we consider this a true negative.

35. "Flattening the curve" refers to an epidemic/pandemic response strategy aimed primarily at...

- A. Ensuring that individuals maintain a low profile during the period communicability
- B. Hastening a population's transition in to the "recovered" group
- C. Preventing excess burden on clinics and hospitals
- D. Reducing peak virulence in the disease

36. The Sensory Organization Test is inaccessible in many environments, but can be approximated with minimal cost via the _____.

- A. Functional Limits of Stability Test
- B. Balance Error Scoring System
- C. Clinical Test of Sensory Interaction and Balance
- D. Y-Balance Test

37. The schedule kept by a night-shift worker is most likely to disrupt sleep via

- A. Inverting the progression of EEG waveforms during sleep
- B. Shifting circadian entrainment
- C. Allowing sleep behaviors to occur during waking hours

D. Decoupling homeostatic and circadian regulatory mechanisms

38. From the perspective of the Health Beliefs Model, a teenager choosing not to wear a helmet while skating might have an unrealistically low:

- A. Perception of Benefits
- B. Perception of Barriers
- C. Perception of Susceptibility
- D. Self-Efficacy

39. A patient with diagnosed sleep apnea reports using prescription benzodiazepines to help with sleep. One clinical concern with this patient would be the potential for...

- A. Interaction with artificial light at night
- B. An increased level of arousal
- C. Oxygen desaturation
- D. Decreased REM sleep

40. When compared with their younger counterparts, a typical night's sleep for the average older adult consists of proportionally _____ time spent awake after initially falling asleep and proportionally _____ time spent in slow-wave sleep states.

- A. less; more
- B. more; less
- C. more; more
- D. less; less

41. Identify the 3 components of the WHO health triad:

- A. Emotional, psychological, medical
- B. Nutritional, exercise, hygienic
- C. Aerobic, phosphagenic, glycolytic
- D. Physical, mental, social

42. Which of the following may interfere with a physiotherapist's ability to deliver empathetic care to his or her patients?

- A. High case load
- B. Empathy is not within physiotherapy scope
- C. Physiotherapists are required to practice based solely on the results of physical examination
- D. Physiotherapists must advocate for themselves and not their patients

43. Each of the following contribute to the designation of "food deserts" *except* _____.

- A. Grocery stores not within driving distance
- B. Limited public transportation
- C. Relatively high access to fast food
- D. Prior history as food desert
- E. High-income in the area

44. A "2" on an FMS test indicates
- A. Performed the test without issue
 - B. Performed the test, but not perfectly
 - C. Performed the test above the 66.67th percentile
 - D. Performed the test with mild pain
45. The ankle strategy predominates during _____ stance and is characterized by _____ corrections than the hip strategy
- A. ecological; more dynamic
 - B. unperturbed; lower-torque
 - C. moderately perturbed; higher-torque
 - D. closed-loop; less ballistic
46. The Functional Movement Screen was developed to bridge the gap between
- A. Recreational and competitive athletics
 - B. Inflammation and remodeling
 - C. Preparticipation physical and performance assessment
 - D. Medical discharge and return to duty
47. In the workplace, an "accident" can be described as all of the following except:
- A. Short, sudden
 - B. Unexpected
 - C. Predictable
 - D. Involving negative consequences
48. It is often argued that globalization leads to greater risk for pandemics. Why do some scholars disagree with this notion?
- A. Globalization leads to increased immune system development at the individual level
 - B. Globalization may not be possible without societal advances (e.g. housing and sanitation) that offset risk
 - C. Globalization guarantees that vaccination networks will be available throughout the world
 - D. Commercial incentives for globalization always wait until appropriate policy measures have been implemented
49. The ability to engage with employment, friends, and family is best described as _____ health.
- A. Physical
 - B. Mental
 - C. Social
 - D. Emotional

50. A young, physically fit individual with excellent laboratory results (e.g. blood panels), but who has recently lost all motivation to exercise and attend to personal hygiene, could be described as:

- A. Healthy and well
- B. Healthy, but unwell
- C. Unhealthy and unwell
- D. Unhealthy, but well

AMMU