

TEACHERS COLLEGES OF JAMAICA

BACHELOR OF EDUCATION

JANUARY 2021 EXAMINATION

COMMON PAPER

PHYSICAL EDUCATION

**THEORY AND METHODOLOGY OF TRAINING
[PE302SEB]**

YEAR 3

TIME: 2½ HOURS

**Instructions: Candidates are required to answer ALL questions from SECTIONS A and B
and TWO questions from SECTION C.**

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

SECTION A (30 marks)
Answer ALL questions in this section.

1. Which methodology is applied during the preparatory phase of training?
 - a) Low intensity and high volume
 - b) High intensity and low volume
 - c) Low intensity and low volume
 - d) High intensity and high volume

2. Which of the following best denotes the number of repetitions and the mileage one completes in training?
 - a) Intensity
 - b) Duration
 - c) Volume
 - d) Frequency

3. The rate of adaptation to training is influenced mostly by
 - a) the intensity, volume, and frequency of training.
 - b) the amount of exercises done in training.
 - c) the amount of time spent on specific training.
 - d) the time in the micro-cycle one is training.

4. Which of the following can be detected during training by monitoring the athlete's heart rate?
 - a) The volume of work
 - b) The frequency of work
 - c) The intensity of training
 - d) The type of training

5. Injury or illness can lead to a loss of fitness that was previously gained through training. Which of the following is best described by the statement?
 - a) Principle of Reversibility
 - b) Principle of Overload
 - c) Principle of Adaptability
 - d) Principle of Progression

6. After a period of training Carl's coach started to demand greater effort from him in completing his tasks. Identify the principle of training Carl's coach is applying.
 - a) Overload
 - b) Recovery
 - c) Specificity
 - d) Variety

7. When weight training is done with light weights and high repetitions it facilitates the development of
 - a) maximum strength.
 - b) strength endurance.
 - c) elastic strength.
 - d) dynamic strength.

8. Which is the most important ability to develop first?
 - a) Speed
 - b) Strength
 - c) Endurance
 - d) Co-ordination

9. The ability to use the senses with body parts to perform motor tasks smoothly and accurately BEST describes
 - a) agility.
 - b) co-ordination.
 - c) flexibility.
 - d) speed.

10. For a sprinter to have a great start it is most important for her to develop
 - a) speed.
 - b) power.
 - c) flexibility.
 - d) agility.

11. In rowing, athletes are required to exert great force over a long period to complete a race. If you were the coach of a set of rowers which ability would you spend a great amount of time developing to help them do well?
 - a) Speed Endurance
 - b) Strength Endurance
 - c) Agility
 - d) Co-ordination

12. Unloading is important if athletes are to perform optimally. When is it best to unload your athlete?
 - a) Before the main competition
 - b) After the main competition
 - c) After the transitory phase
 - d) Before the preparatory phase

13. In developing a tri-cycle training plan which phase should be the longest if the plan is to be effective?
- a) Preparatory phase II
 - b) Competitive phase I
 - c) Preparatory phase I
 - d) Competitive phase III
14. In a quadrennial training plan, the highest level of performance is expected in which year?
- a) The fourth-year
 - b) The second-year
 - c) The first- year
 - d) The third-year
15. A bi-cycle training plan would include all EXCEPT
- a) 2 general preparation.
 - b) 2 specific preparation.
 - c) 2 competitive phases.
 - d) 2 transitory phases.
16. In every training programme there should be a transitory period. Why is this important?
- a) To help the athlete adjust to the stress of training
 - b) To ensure that the athlete peaks at the right time
 - c) To facilitate psychological and biological regeneration
 - d) To allow for optimum adaptation to take place
17. For optimal performance to be realised bio-motor abilities must be perfected. In which phase of training is this done?
- a) The competitive phase
 - b) The transitory phase
 - c) The preparatory phase
 - d) In all periods
18. What is the MOST important information that a coach should find out about an athlete before the start of training?
- a) The event the athlete wants to do
 - b) The athlete's best performance
 - c) The athlete's experience
 - d) The health and fitness status of the athlete

19. After training ceases, how long does it take for detraining to start?
- a) 48 hours
 - b) 1 week
 - c) 72 hours
 - d) 3 weeks
20. The number of years an athlete has been training is referred to as his/her
- a) training age.
 - b) biological age.
 - c) chronological age.
 - d) maturation age.
21. The primary objective for an athlete's training is
- a) to be able to get the qualifying times for competitions.
 - b) to realise the highest level of performance.
 - c) to see how future programmes can be enhanced.
 - d) to be in a state of good health and fitness.
22. Which of the following events rely on the breakdown of creatine phosphate stored in the muscles for energy?
- a) 800M
 - b) 100M
 - c) 200M
 - d) 400M
23. In training for the 400 metres what is most important?
- a) The development of speed
 - b) The development of strength
 - c) The increase of lactate threshold
 - d) The increase of aerobic threshold
24. How many ATP's are gained from the Krebs cycle?
- a) 20
 - b) 5
 - c) 38
 - d) 2
25. Which energy system is responsible for the production of energy for a boxer to throw a powerful knock-out punch?
- a) Anaerobic lactate
 - b) Aerobic glycolytic
 - c) Anaerobic alactic
 - d) Aerobic

26. Identify the training factor present below.
- Volume
 - Density
 - Psychological
 - Intensity
27. Which is the correct order in which the training factors should be developed?
- Physical, Technical, Tactical and Theoretical
 - Tactical, Physical, Theoretical and Technical
 - Theoretical, Tactical, Technical and Physical
 - Technical, Tactical, Physical and Theoretical
28. Which training factor can be developed using the following activities?
- Analyzing past performances in view of future opponents.
 - Studying the general principles of the sport.
 - Studying competition rules and regulations in the chosen sport or event.
- Theoretical
 - Technical
 - Tactical
 - Physical
29. High working capacity, quick rate of recovery, and psychological relaxation are factors that facilitate
- recovery.
 - peaking.
 - adaptation.
 - fitness.
30. When is the most ideal time for an athlete to peak?
- In the first competition
 - In the last competition
 - In the main competition
 - In any competition

SECTION B
Answer all questions in this section

1. Explain the main aim of periodization.

(4 marks)

2. Explain the principle of specificity.

(2 marks)

3. Give a suitable definition for
a. Microcycle

(2 marks)

b. Mesocycle

(2 marks)

c. Macrocycle

(2 marks)

4. Explain what the graph below is illustrating.

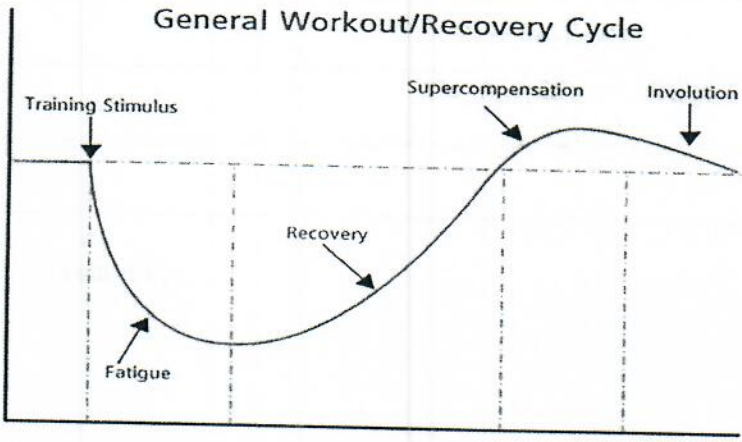


Fig. 1

(6 marks)

5. Define the training theory?

(3 marks)

6. Explain the principle of progression.

(2 marks)

7. Give FOUR objectives of the General Preparatory Period (GPP).

(4 marks)

8. State THREE characteristics of the Specific Physical Preparation.

(3 marks)

Total 30 marks

SECTION C (40 marks)
Answer TWO from this section

1. Discuss how the following can be used to administer the overload principle of training giving practical example:
 - a) Frequency
 - b) Intensity
 - c) Time (duration)
 - d) Type

(20 marks)

2. Outline what takes place in each of the following stages of aerobic respiration giving an account of the number of ATP produced :
 - a) Glycolysis
 - b) Krebs Cycle
 - c) Electron Transport Chain

(20 marks)

3. As a coach your desire is to prepare your athletes to perform optimally. With this in mind discuss how the following objectives can be realised
 - a) Multilateral Physical Development
 - b) Technical Development
 - c) Tactical Development
 - d) Team Preparation

(20 marks)

4. Discuss the following factors that might adversely affect peaking:
 - a) Factors related to organization of competition
 - b) Factor related to the athlete's state
 - c) Factors related to training

(20 marks)

END OF EXAMINATION

