



VTCT - UV20525 Principles of exercise fitness and health

Single unit assessment

Multiple choice question paper (Mock paper) Time: 1 hour

**PLEASE COMPLETE THE FOLLOWING BOXES IN BLACK OR BLUE INK.
USE BLOCK CAPITALS. DO NOT USE PENCIL.**

Learner registration number / ULN										
Centre number										
Learner surname										
Other names										
Signature										
Date										
Attempt 1		Attempt 2		Attempt 3						

Marker's use			
Marker's initials			
1		16	
2		17	
3		18	
4		19	
5		20	
6		21	
7		22	
8		23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	
Total			

**PLEASE READ THE TEXT BELOW VERY CAREFULLY
BEFORE ATTEMPTING ANY OF THE ASSESSMENT**
You will need no other materials

Instructions to learners

- You must write only in blue or black ink.
- Answer all questions by marking an **X** in the appropriate box.
- At the end of the test this paper must be handed in to the supervisor/invigilator.
- **Do not open this paper until told to do so by the supervisor/invigilator.**

Advice to learners

- Read each question carefully and answer as many questions as you can.
- Questions may be attempted in any order.

Internal Verification: YES / NO	Internal verifier:
Date and Comments	

1 Which one of the following is a long-term cardiovascular adaptation to aerobic training?

- A Decreased cardiac output
- B Increased resting heart rate
- C Increased stroke volume
- D Decreased heart size

2 Which one of the following is a long-term respiratory adaptation to aerobic training?

- A Increased lung capacity
- B Increased resting breathing rate
- C Decreased arterial-venous oxygen difference during exercise
- D Decreased maximum pulmonary ventilation

3 Which one of the following is a long-term skeletal adaptation to resistance training?

- A Decreased joint stability
- B Early onset of osteoporosis
- C Decreased bone mineral density
- D Increased bone density

4 Which one of the following exercises / techniques will cause the greatest degree of delayed onset of muscle soreness?

- A Walking
- B Swimming
- C Resistance training
- D Jogging

5 During a session of moderate exercise

- A mitochondria numbers decrease
- B mitochondria numbers increase
- C capillary numbers increase
- D capillaries to working muscles dilate

6 Which one of the following is a long-term muscular adaptation to aerobic training?

- A Decreased number of mitochondria
- B Decreased concentration of aerobic enzymes
- C Increased myoglobin
- D Increased utilisation of carbohydrate at low intensities

7 Which one of the following is a long-term muscular adaptation to resistance training?

- A Increased number of motor units recruited
- B Decreased cross sectional area of muscle fibres
- C Decreased number of muscle fibres
- D Muscle atrophy

8 Which one of the following is a skill-related fitness component?

- A Body composition
- B Agility
- C Flexibility
- D Muscular strength

9 Which one of the following is correct?

- A Muscular endurance training is achieved by low resistance and low repetitions
- B Muscular strength training must be performed using only eccentric contractions
- C Muscular strength training is beneficial to people with high blood pressure
- D Muscular endurance training is achieved by low resistance and high repetitions

10 To achieve a training effect, muscular strength programmes must

- A be carried out daily
- B include four sets of ten repetitions
- C utilise resistance training machines
- D be weight bearing

11 Which one of the following is correct?

- A Ectomorphs will gain muscle bulk easily and quickly
- B Recovery time from exercise may be prolonged for older adults
- C A deficiency of calcium can cause anaemia
- D A protein rich diet will improve aerobic fitness

12 Which one of the following is correct?

- A Reversibility occurs when training intensity is increased
- B High-impact exercise will benefit all age groups
- C People with injuries must not perform any exercise
- D Progressive overload is a safe method for increasing exercise intensity

13 Which one of the following is correct?

- | | | |
|--------------------------|---|--|
| <input type="checkbox"/> | A | A minimum of 120 minutes must be allocated to a muscular endurance session |
| <input type="checkbox"/> | B | The intensity of cardio-respiratory training should be 60-90% maximum heart rate |
| <input type="checkbox"/> | C | Flexibility will significantly improve by performing stretches once a month |
| <input type="checkbox"/> | D | Muscular endurance training should be low repetitions |

14 Which one of the following is correct?

- | | | |
|--------------------------|---|---|
| <input type="checkbox"/> | A | Decreasing resistance during an exercise will improve the ability to maintain posture and alignment |
| <input type="checkbox"/> | B | Increasing the speed of a resistance exercise will result in increased muscle bulk |
| <input type="checkbox"/> | C | Reversibility means that opposing muscle groups must be trained in sequence |
| <input type="checkbox"/> | D | Specificity means that free-weights and resistance machines must be used in a single training session |

15 Which one of the following causes over-training?

- | | | |
|--------------------------|---|------------------------------------|
| <input type="checkbox"/> | A | Frequent low-intensity exercise |
| <input type="checkbox"/> | B | Adequate recovery |
| <input type="checkbox"/> | C | Inadequate recovery |
| <input type="checkbox"/> | D | Occasional high-intensity exercise |

16 Which one of the following is a contraindication to exercise for older adults (50+)?

- A Cognitive decline
- B Previous total hip replacement
- C Exercise tolerance of 20-30 minutes
- D Partial loss of sight

17 Pregnant women should

- A try to exercise in hot and humid conditions where possible
- B avoid prone exercise
- C perform leg abduction and adduction exercises against resistance
- D perform exercises that include rapid changes in direction

18 Regular physical activity

- A increases anxiety and depression
- B increases morbidity
- C decreases the ability to perform activities of daily living
- D increases bone density

19 Which one of the following foods is a good source of carbohydrate?

- A Cheese
- B Potatoes
- C Nuts
- D Meat

20 Which macronutrient should a marathon runner eat increased amounts of in the lead up to an event?

- A Protein
- B Fat
- C Carbohydrate
- D Fibre

21 The vitamin responsible for regulating bone formation and repair is

- A vitamin A
- B vitamin K
- C vitamin D
- D vitamin C

22 Whilst exercising, muscles

- A produce oxygen
- B demand more carbon dioxide
- C use vitamins to produce energy
- D receive a greater blood supply

23 Flexibility is most safely improved by

- A rapid stretching
- B static stretching
- C ballistic stretching
- D resistance training

24 An effective aerobic training session should include which one of the following

- A use of free weights
- B explosive sprinting activities
- C use of large muscle groups recruited in a rhythmic manner
- D exercising in a class environment

25 To effectively stretch a muscle it needs to be

- A contracted to its shortest length
- B relaxed
- C lengthened beyond its normal range of movement
- D completely fatigued

26 The purpose of a warm up is to

- A increase blood flow to working muscles
- B increase lactic acid above the anaerobic threshold
- C decrease flexibility
- D decrease the activity of the mitochondria

27 Which energy system primarily fuels a 400m running race?

- A Creatine phosphate system
- B Glycolytic system
- C Krebs cycle
- D Aerobic system

28 Power is the product of

- A speed and coordination
- B coordination and agility
- C speed and strength
- D coordination and strength

29 Plyometric exercises should only be

- A performed by people with disabilities
- B integrated into a warm-up
- C integrated into an advanced training programme
- D integrated into an early stage rehabilitation programme

30 Blood pooling following exercise can be reduced by

- A performing a progressive cool down
- B consuming a protein milkshake
- C performing high-intensity exercise
- D performing an agility drill

End of Test