

**Wednesday 25 January 2012 – Afternoon**

**GCSE PHYSICAL EDUCATION**

**B453** Developing Knowledge in Physical Education

\* B 4 2 6 7 3 0 1 1 1 \*

Candidates answer on the Question Paper.

**OCR supplied materials:**

None

**Duration:** 1 hour

**Other materials required:**

None



Candidate forename					Candidate surname				
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Centre number						Candidate number			
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**INSTRUCTIONS TO CANDIDATES**

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Section A – candidates should only circle one answer per question.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **60**.
- Your quality of written communication is assessed in the question marked with an asterisk (\*).
- This document consists of **12** pages. Any blank pages are indicated.

**Section A**

Answer **all** questions. Please **circle** one answer per question.

- 1 Which one of the following is a function of the skeleton?
  - (a) To help store minerals
  - (b) To produce lactic acid
  - (c) To provide vitamins
  - (d) To aid with digestion[1]
  
- 2 Which one of the following is the best example of the frequency part of the FITT principle?
  - (a) Training at least three times a week
  - (b) Training with heavy weights
  - (c) Training with varied activities
  - (d) Training for a long period of time[1]
  
- 3 Which one of the following is an example of sponsorship?
  - (a) A football club paying one of their players
  - (b) Paying to watch an athletic event
  - (c) A drinks company pays for the organisation of a marathon
  - (d) A government grant to build a leisure centre[1]
  
- 4 Which one of the following is **not** a method of reducing risks of injury when participating in physical activities?
  - (a) Wearing shin pads when playing hockey or football
  - (b) Making sure you warm up before participating in an exercise class
  - (c) Playing with others of similar ability in a rugby match
  - (d) Wearing fashionable sports equipment when going to the gym[1]

- 5 Which one of the following is the best example of flexibility training?
- (a) Bounding and hopping exercises  
(b) A mixture of sprinting and walking  
(c) A number of stretching activities  
(d) Careful use of weight training with few repetitions [1]
- 6 Which one of the following is an example of schools promoting an active, healthy lifestyle?
- (a) Extra-curricular physical activities open for anyone to join  
(b) A good homework policy emphasising literacy  
(c) Strong leadership to keep discipline in class  
(d) Good library facilities with access to the internet [1]
- 7 Which one of the following is a hazard when participating in a physical activity?
- (a) Slipping on the floor by the swimming pool  
(b) Concussion in a gymnastics class  
(c) Broken glass on a football pitch  
(d) Twisting your ankle in an exercise class [1]
- 8 Which one of the following is a good reason for setting goals when participating in physical activities?
- (a) To decrease levels of performance  
(b) To raise anxiety about self esteem  
(c) To reduce motivation levels  
(d) To try to stick to an exercise programme [1]
- 9 Which one of the following statements best describes aerobic training?
- (a) Long intervals of moderate exercise  
(b) Short sharp sprints with long rest intervals  
(c) Lifting heavy weights with few repetitions  
(d) Plyometric exercises over short intervals [1]

- 10 Which one of the following is a long-term effect of leading an active and healthy lifestyle?
- (a) Increase in muscle temperature
  - (b) Increase in stroke volume
  - (c) Decrease in cardiac output
  - (d) Decrease in rate of recovery
- [1]
- 11 Which one of the following is a term given for changes in blood flow to muscles during exercise?
- (a) Tidal volume
  - (b) Vascular shunt
  - (c) Prime movers
  - (d) Cardiac control
- [1]
- 12 What role does cartilage play in efficient joint movement?
- (a) Attaches muscle to muscle
  - (b) Produces red blood cells
  - (c) Supplies the joint with oxygen
  - (d) Prevents bones from wear and tear
- [1]
- 13 Which one of the following is an example of intrinsic feedback?
- (a) A fellow player shouting 'well done' when you have scored a goal in netball
  - (b) Statistics on how far you have run during a football match
  - (c) Hitting a shot in tennis and it feeling like a good shot
  - (d) A trophy given for the best performance in a dance competition
- [1]
- 14 Which one of the following best describes the range of movement called abduction?
- (a) An outward leg movement in breaststroke
  - (b) A high board diver doing a tucked somersault
  - (c) A performer in an aerobics class jogging on the spot
  - (d) A rugby player kicking the ball
- [1]

15 Which one of the following best describes the effect of arthritis?

- (a) Inflammation in joints
- (b) Increase in white blood cells
- (c) Makes bones more flexible
- (d) Weakness in ligaments

[1]

**[15 marks]**

**Section B**

Answer **all** questions.

- 16** Describe **three** long term effects of exercise on the muscular system.

- 1) .....
- .....
- 2) .....
- .....
- 3) .....
- ..... [3]

- 17** Explain how private enterprise can increase participation in physical activities.

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- ..... [3]

- 18** Tendonitis can be a barrier to participating in physical activities.

Describe the symptoms of tendonitis.

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- ..... [3]

- 19 Describe the SMART principle of goal setting to improve performance in physical activities.

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- 20 Plyometrics and weight training are two ways of exercising to improve fitness.

Describe **both** of these training methods.

Plyometrics .....

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Weight training .....

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- 21 Describe recent government initiatives to promote active, healthy lifestyles.

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- 22 Describe, using practical examples, the following training principles: overload; specificity; progression.

Overload .....

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Specificity .....

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Progression .....

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- 23 Describe the structure of a joint. Give an example of a **hinge** joint.

Description of a joint .....

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Example of a **hinge** joint .....

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[4]

- 24 Describe how good personal hygiene can help to avoid minor infections when participating in physical activities.

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[4]

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- 25\*** Explain how different types of feedback can motivate people to follow an active, healthy lifestyle.

[6]

[6]

[45 marks]

[Paper total: 60 marks]

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