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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GCSE**

B453

PHYSICAL EDUCATION

Developing Knowledge in Physical Education

WEDNESDAY 25 JANUARY 2012: Afternoon

DURATION: 1 hour

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

Candidates answer on the Question Paper.

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

None

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

- **Write your name, centre number and candidate number in the boxes on the first page. 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).**

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 (*).**

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.

_____ [3]

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

Describe the symptoms of tendonitis.

[3]

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

[5]

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

Describe BOTH of these training methods.

Plyometrics _____

Weight training _____

[6]

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

[5]

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

Overload _____

Specificity _____

Progression _____

[6]

23 Describe the structure of a joint. Give an example of a HINGE joint.

Description of a joint _____

Example of a HINGE joint _____

[4]

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

[4]

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

[6]

[45 marks]

[Paper total: 60 marks]

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