



Oxford Cambridge and RSA

**Thursday 21 May 2015 – Afternoon**

**GCSE PHYSICAL EDUCATION**

**B453/01 Developing Knowledge in Physical Education**



Candidates answer on the Question Paper.

**OCR supplied materials:**

None

**Other materials required:**

None

**Duration: 1 hour**



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**.
- The 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 an example of a ball and socket joint?

- (a) Ankle joint
- (b) Elbow joint
- (c) Shoulder joint
- (d) Neck joint

[1]

2 Which one of the following muscle groups is found in the arms?

- (a) Abdominals
- (b) Triceps
- (c) Latissimus dorsi
- (d) Trapezius

[1]

3 Which one of the following is a National Governing Body?

- (a) The International Tennis Federation
- (b) The British Olympic Association
- (c) The Local Authority Committee
- (d) The Rugby Football Union

[1]

4 Which one of the following pairs is part of SMART goal setting?

- (a) Sports and Time-phased
- (b) Movement and Specific
- (c) Achievable and Tedium
- (d) Realistic and Measurable

[1]

5 Which one of the following is an example of trial and error learning?

- (a) Watching a coach perform a forehand in tennis and then copying it perfectly
- (b) Rehearsing a bowling technique in cricket to perfect the skill
- (c) Serving in tennis and hitting it out but getting it right next time
- (d) Reading a coaching manual on javelin technique and then attempting a throw

[1]

6 Which one of the following is a use of synovial fluid?

- (a) To connect muscle to bone
- (b) To lubricate joints
- (c) To stop the build-up of lactic acid
- (d) To produce red blood cells

[1]

7 Which one of the following is an example of a long term effect of exercise on the heart?

- (a) Increase in tidal volume
- (b) Decrease in resting heart rate
- (c) Increase in heart disease
- (d) Decrease in stroke volume

[1]

8 Which one of the following best describes the training principle of reversibility?

- (a) Fitness can deteriorate if training stops
- (b) If a programme is reversed fitness will improve
- (c) Variety of training is important to relieve tedium
- (d) Training should always be progressively more difficult

[1]

9 Which one of the following is the role of the synergist in muscle movement?

- (a) This is the prime mover of the muscle movement
- (b) This is the antagonist that opposes movement of the agonist
- (c) This stabilises the movement at the joint
- (d) This ensures that all movements can take place at the same time

[1]

10 Which one of the following shows the influence of the media on participation in physical activities?

- (a) Advertising a product at rugby matches can increase product sales
- (b) Showing live football matches can increase the size of the audience
- (c) Radio commentary can inform everyone immediately about the scores in cricket
- (d) Coverage of the Wimbledon Championships can encourage people to play tennis

[1]

11 Which one of the following is **not** an example of continuous training?

- (a) Jogging around an athletics track five times
- (b) Stretching one muscle group for over five minutes
- (c) Swimming 20 lengths of a swimming pool
- (d) Cycling five miles without stopping

[1]

12 Which one of the following is an example of mental preparation for effectively performing physical activities?

- (a) Concentrating on the take-off board when about to perform the long jump
- (b) Stretching all the main muscle groups before a netball game
- (c) Jogging for a short distance before preparing for a sprint race
- (d) Eating a high proportion of carbohydrates before running a marathon

[1]

13 Which one of the following is an example of adduction?

- (a) Moving your leg out to the side to gain balance in a gymnastic routine
- (b) Bending your arms when performing a biceps curl in weight training
- (c) Throwing your head back when breathing in backstroke
- (d) Moving both arms towards your body during the breast stroke

[1]

14 Which one of the following is an example of intrinsic feedback?

- (a) A coach telling you about the mistakes you have made in a gymnastics sequence
- (b) Looking at the scoreboard and realising that you have won the game in basketball
- (c) Feeling that a golf shot has gone wrong even before you see where the ball has gone
- (d) A lineswoman shouting out during a tennis rally at Wimbledon

[1]

15 Which one of the following shows the role of a school in promoting healthy lifestyles?

- (a) Ensuring that school sports teams win against other local schools
- (b) Only allowing pupils to play sports if they are getting good grades
- (c) Letting pupils who are good at sports have time off lessons
- (d) Running a healthy eating programme in the school canteen

[1]

SECTION B

Answer **all** questions.

16 One of the elements of the FITT training principle is 'type'.

Identify the other **three** elements of the FITT principle.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

17 Describe **two** potential hazards that might be found in an artificial outdoor area and suggest a way to reduce the risk of each hazard.

Hazard .....

Way to reduce risk .....

.....

Hazard .....

Way to reduce risk .....

.....

[4]

18 Describe **three** positive effects and **three** different negative effects that the media may have on following an active, healthy lifestyle.

Positive effects

1 .....

.....

2 .....

.....

3 .....

.....

Negative effects

1 .....

.....

2 .....

.....

3 .....

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[6]

19 Give **four** examples of how schools can promote involvement in physical activity.

1 .....

2 .....

3 .....

4 .....

[4]

20 What role do tendons play in movement? What problems are associated with tendons that might stop participation in physical activities?

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[4]

21 What type of joint is the knee joint?

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.....  
.....

When bending the knees, describe the movement around the joint and identify the **two** muscle groups involved.

Description .....

Muscle group 1 .....

Muscle group 2 .....

Give a practical example of when you might use such a movement.

.....  
.....  
.....

[5]

22 Describe **two** current government initiatives to promote active, healthy lifestyles.

1 .....

.....  
.....

2 .....

.....  
.....

[4]

**23** Explain when and how lactic acid affects the ability to maintain physical activity.

. [4]

24 Briefly describe the vascular shunt mechanism and identify **three** other short term effects of exercise on the body.

- [5]

10

**25\*** Using practical examples, explain how you might motivate a young person to participate in physical activities.

**END OF QUESTION PAPER**

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