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

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.
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

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

(a) Abdominals

(b) Triceps

(c) Latissimus dorsi

(d) Trapezius

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

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
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

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

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

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

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
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

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

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

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
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]
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. .......................................................................................................................................................

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

1. .......................................................................................................................................................

2. .......................................................................................................................................................

3. .......................................................................................................................................................

4. .....................................................................................................................................................
20 What role do tendons play in movement? What problems are associated with tendons that might stop participation in physical activities?

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

What type of joint is the knee joint?

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

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

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

1 ...........................................................................................................................................................
..........................................................................................................................................................

2 ...........................................................................................................................................................
..........................................................................................................................................................
23 Explain when and how lactic acid affects the ability to maintain physical activity.

24 Briefly describe the vascular shunt mechanism and identify three other short term effects of exercise on the body.
25* Using practical examples, explain how you might motivate a young person to participate in physical activities.

..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..................................................................................................................................................... [6]

END OF QUESTION PAPER