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## GCSE Physical Education

## Edexcel

## Reference: 5PE01/01

## Time: 1 hour 30 minutes

Marks Available: 80

## Instructions

- Use black ink or ball-point pen.
- Fill in the boxes at the top of this page with your name, centre number and candidate number.
- Answer all questions.
- Answer the questions in the spaces provided there may be more space than you need.


## Information

- The total mark for this paper is 80.
- The marks for each question are shown in brackets use this as a guide as to how much time to spend on each question.
- Questions labelled with an asterisk (*) are ones where the quality of your written communication will be assessed you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.


## Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.


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## Answer ALL questions

For each part of Question 1, choose an answer, $A, B, C$ or $D$, and put a cross in a box If you change your mind about an answer, put a line through the box and then mark your new answer with a cross
(a) Taking part in physical activity can contribute to good physical health and develop teamwork and cooperation Which one of the following is not a physical or social benefit of exercise?

A Physical challengeB Help the individual feel good


C Make new friendsD Improve performance
(b) Which of the answers below $\mathbf{A}, \mathbf{B}, \mathbf{C}$ or $\mathbf{D}$ are examples of factors from the key influence 'cultural factors'?

A Availability, location, cost and status
$\square$
B Family, peers, location and accessC Age, disability, gender and race


D Age, gender, fashion and media coverage
(c) Which of the components of fitness below is not a health related component of fitness?

A Cardiovascular fitnessB FlexibilityC Muscular endurance


D Speed
(d) Which method of training can be adapted to improve cardiovascular fitness, muscular endurance and muscular strength?

A FartlekB Circuit


C ContinuousD Weight
(e) The timing of dietary intake is important for optimum performance. What would be the most appropriate amount of time to eat prior to participating in physical activity?A No need to wait as the food will provide energy immediatelyB $\quad 30$ minutesC 1 hourD 2 hours
(f) Identify which answer below describe the characteristics of an ectomorph?

A Narrow shoulders and narrow hips
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B Narrow shoulders and wide hips


C Wide shoulders and narrow hips


D Classification of the body type
(g) How can a diet which contains high density lipoprotein improve the efficiency of the cardiovascular system?

A Causes blood vessels to narrowB Increases our heart rateC Increases our blood pressureD Carry cholesterol away from blood vessels
(h) Which one of the following accurately describes the effect smoking can have on the respiratory system?A Smoking increases our heart rate and blood pressureB Smoking damages the alveoli and lowers the efficiency of gaseous exchangeC Increases the efficiency of gaseous exchange
$\square$ D Smoking will not affect the efficiency of the respiratory system
(i) Which one of the examples of movement below is not an isotonic muscle contraction?
$\square$ A A cricketer bending his arm to throw a ball when fieldingB A sprinter running a 100 metre raceC A rugby player pushing against an opponent in the scrumD A footballer kicking the ball towards goal
(j) Which mineral should be part of a balanced diet to ensure bones grow and increase in density?

A CalciumB SodiumC IronD Vitamin D

2 Taking part in physical activity on a regular basis provides us with a healthy, active lifestyle.
(a) Describe a physical effect of how physical activity can increase our individual wellbeing?
(b) Describe a mental effect of how physical activity can increase our individual wellbeing?
(c) Participation in physical activity can stimulate cooperation and teamwork.
(i) Identify one other social benefit physical activity can stimulate and describe your answer.

Social benefit:
(ii) Describe how physical activity allows an individual to achieve this social benefit.

3 Sport and physical activity offer opportunities to participate in a variety of roles.
(a) Identify one role, other than a participant, an individual could become to participate in sport or physical activity.

National Governing Bodies, alongside Sport England and the Youth Sport Trust develop initiatives to develop individuals and encourage them to lead healthy, active lifestyles.
(b) One common initiative is to increase participation in physical activity. Describe another initiative which is common amongst National Governing Bodies?

4 (a) Describe two components of health related fitness that would be relevant to the performers in Figure 1 and Figure 2.


Figure 1
Figure 2

Component:
Reason: $\qquad$
$\qquad$
$\qquad$

Component: $\qquad$

Reason: $\qquad$
(b) Explain the importance of one component of skill related fitness that would be beneficial to both performers in Figure 1 and Figure 2.

5 Explain how an athlete would apply the principle of training of progressive overload to improve their performance in a chosen sport.

Chosen sport:

Explanation:
(Total for Question 5 = 3 marks)
$6 \quad$ Diet is important to your personal health and wellbeing.
(a) Describe the importance of one macronutrient and how it can improve performance in physical activity.
(b) Micronutrients are also components of a balanced diet. State why the mineral iron is essential to a healthy, balanced lifestyle.

7 Drugs can enhance the performance of an individual in physical activity and training, or in daily life.
(a) State one reason why people take performance-enhancing drugs?
(b) Performance enhancing drugs have different effects on performance. Identify which type of sporting athlete and provide a reason why?
(i) Diuretics: $\qquad$
$\qquad$
$\qquad$
(ii) Narcotic Analgesics:
(Total for Question $7=5$ marks)


8 Participating in physical activity can carry an element of risk. Figure 3 shows a girls Rugby game.

Figure 3
(a) Identify an element of protective clothing that the person carrying the ball should wear to prevent injury

Item of clothing:
(b) Describe three other ways that you could prevent injury and minimise risk in the activity shown in Figure 3.

Preventative measure:

Reason:

Preventative measure:

Reason:

Preventative measure:
Reason:

9 (a) Complete the following statements about the effects of exercise on the respiratory system.
(i) The respiratory system has two main functions. One is to bring into the body to supply the working muscles.
(ii) As a result of physical activity. Our breathing rate to meet the demands of the environment.
(iii) Strenuous anaerobic exercise can cause an 'oxygen debt' to occur. Explain how oxygen debt can occur.
$\qquad$
$\qquad$
$\qquad$
$\qquad$ -

10 Muscles work against one another in antagonistic pairs to produce movement.
(a) Describe how the muscles work in an antagonistic pair when an individual performs a press up during circuit training.
(b) Identify an immediate and a long term effect of exercise, on the muscular system, that an individual would experience when completing a personal training program.

Immediate effect: $\qquad$

Long term effect:

11 The skeletal system is vital to allow us to live a healthy, active lifestyle.
(a) Identify one function of the skeletal system that allows us to participate in physical activity.
(b) The elbow is an example of a hinge joint. Identify another location of a hinge joint in the skeletal system.
(c) Give an example of a sporting action that uses the range of movement possible at the joint.

Mr. Smith is a PE teacher. He has a group of students who participate in a range of physical activities for the school. Jake is a student who has been inspired by his teacher, and participates in these activities because of this.
(a) What key factor has influenced Jake to participate in physical activity at school?

Influence:
(b) Jake has been a regular member of the school Rugby League team and has recently joined his local club.

Describe which level of the sports participation pyramid Jake is currently at.

Stage:
(c) As part of the clubs pre-season exercise program, the coach has ensured all students complete a PAR-Q.

Why is it important for each individual player to complete a PAR-Q prior to the program beginning?
(d) The program has been designed to improve Jake's, and the teams, levels of cardiovascular fitness.

Describe which fitness test you would recommend the coach administers to assess Jake's level of cardiovascular fitness.

Fitness test:
Reason:
(e) Jake has identified that he wants to improve his fitness. His coach has asked him to set a SMART target. Identify and describe the specific principle of SMART target setting to create a relevant goal for Jake.
(f) The graph in Figure 4 shows Jake's resting heart rate was 80 beats per minute (bpm), at the beginning of his exercise program. Each week his resting heart rate decreases by 2 beats per minute.

Plot the graph to show what has happened to Jake's resting heart rate during the program


Figure 4
(g) Describe how this graph shows Jake's level of fitness have improved.
*13 Oliver is an elite young athlete, who represents the county regularly. To improve his performance he follows a personal exercise programme.

Discuss how the methods of training could be used to improve his performance in the 400 metres.

Candidates are not expected to use all the space provided
*14 Discuss how regular exercise improves the efficiency of our cardiovascular system.

