Write your name here

Surname	Other names

Centre Number | Candidate Number

Edexcel GCSE

Physical Education

Unit 1: The Theory of Physical Education

Sample Assessment Material
Time: 1 hour 30 minutes

Paper Reference
5PE01/01

You do not need any other materials.

Total Marks

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.
- There are 24 pages in this question paper. Any blank pages are indicated.
- 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.

Turn over ▶

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6/4/4/3/3/3

S 4 2 4 7 4 A 0 1 2 4

PEARSON

Answer ALL the questions.

For each part of Question 1, choose an answer A, B, C or D and put a cross in the box ☒. Mark only one answer for each question. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 (a) Physical activity can improve your mental health by helping you 'feel good'.

Which **one** of the following causes this 'feel good' factor?

(1)

- ☒ **A** The perceived status of the activity
- ☒ **B** An increase in serotonin
- ☒ **C** An increase in heart rate
- ☒ **D** An increase in micronutrients

(b) Exercise is:

(1)

- ☒ **A** a form of physical activity to maintain or improve health and/or physical fitness
- ☒ **B** training regularly
- ☒ **C** a state of complete mental, physical and social wellbeing, and not merely the absence of disease and infirmity
- ☒ **D** the ability to meet the demands of the environment.

(c) The FITT principle of training is made up of four parts.

Which **one** of the following statements covers **all** four parts of the FITT principle?

(1)

- ☒ **A** How hard and often you work, making sure you do not do too much, whilst avoiding boredom
- ☒ **B** How long, hard and often you work, whilst avoiding boredom
- ☒ **C** How hard and often you work, making sure that your training fits the requirements of the activity, making sure you do not do too much
- ☒ **D** How long, hard and often you work, making sure that your training fits the requirements of the activity

(d) If the correct target zone for an endurance athlete is between 120 and 160 bpm, how old is the athlete?

(1)

☒ **A** 15

☒ **B** 20

☒ **C** 25

☒ **D** 40

(e) Planning what and when you eat is an important part of leading a healthy, active lifestyle.

Which **one** of the following would be the **most** appropriate amount of time to leave before exercising after a large meal?

(1)

☒ **A** No need to wait as the food will provide essential energy

☒ **B** Five minutes

☒ **C** Half an hour

☒ **D** Two hours

(f) In order for the gymnast to achieve and maintain the position in **Figure 1** he needs strong bones.

Which mineral is deposited to strengthen the bones?

(1)

Figure 1

- ☒ **A** Sulphur
- ☒ **B** Calcium
- ☒ **C** Potassium
- ☒ **D** Folic acid

(g) A benefit for the respiratory system of long-term participation in physical activity is increased:

(1)

- ☒ **A** muscle atrophy
- ☒ **B** recovery time
- ☒ **C** vital capacity
- ☒ **D** cardiac output

(h) Which **one** of the following muscles is contracting to allow the cyclist in **Figure 2** to flex his leg at the knee?

(1)

Figure 2

- ☒ **A** Trapezius
- ☒ **B** Hamstrings
- ☒ **C** Gastrocnemius
- ☒ **D** Quadriceps

(i) Which **one** of the following categories of performance enhancing drugs is **most** likely to be linked to endurance events like the Tour de France cycle race?

(1)

- ☒ **A** Anabolic steroids
- ☒ **B** Stimulants
- ☒ **C** Narcotic analgesics
- ☒ **D** Peptide hormones

(j) Participation in physical activity can improve all aspects of health.

Which **one** of the following lists of possible benefits would provide a physical, social **and** mental benefit of exercise?

(1)

- ☒ **A** Physical challenge; playing with friends; making new friends
- ☒ **B** Stress relief; aesthetic appreciation; increased fitness
- ☒ **C** Reduced cholesterol; reduction in blood pressure; making new friends
- ☒ **D** Increase in cardiovascular fitness; physical challenge; increased self-esteem

(Total for Question 1 = 10 marks)

2 Apart from the 'feel good' factor, describe **two** ways in which regular participation in physical activity can improve **mental** health.

(Total for Question 2 = 4 marks)

3 Laura enjoyed participating in Physical Education lessons at school. She has now left school and is interested in becoming a coach.

A successful coach must be a good motivator and a good communicator.

Explain why these **two** qualities are needed to be a successful coach.

Quality	**Explanation**
Good motivator	**(2)**
Good communicator	**(2)**

(Total for Question 3 = 4 marks)

4 **Figure 3** shows a collection of logos representing different initiatives that have been developed in recent years.

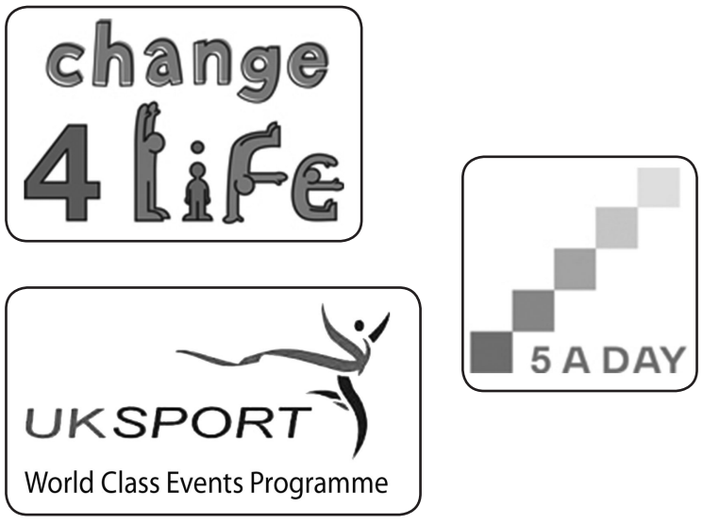


Figure 3

Other than increasing participation, describe **two** common purposes of initiatives such as those shown in **Figure 3**.

.....

.....

.....

.....

.....

.....

.....

.....

(Total for Question 4 = 4 marks)

Question 5 relates to components of health-related exercise and skill-related fitness, which are used in physical activity to contribute to a balanced, healthy lifestyle.

5 (a) Select a component of **health-related exercise** to complete the following statement.

(1)

..... is the percentage of body weight which is fat, muscle and bone.

(b) Select a component of **skill-related fitness** to complete the following statement.

(1)

Squash players need ..... to move the racket to the right place to strike the ball.

(Total for Question 5 = 2 marks)

---

6 The wheelchair fencers in **Figure 4** require good flexibility at the shoulder to be successful in their sport.

Figure 4

Explain how you would apply **one** of the principles of training to improve their flexibility at the shoulder.

.....

.....

.....

.....

(Total for Question 6 = 2 marks)

---

7 Principles of training can be applied when planning a balanced, healthy lifestyle.

(a) When would a performer experience the principle of **reversibility**?

(1)

.....

.....

(b) Define the principle of **progressive overload**, and explain how it can improve fitness.

(2)

.....

.....

.....

.....

(Total for Question 7 = 3 marks)

8 Teachers will set targets with you to help you improve in all aspects of physical education. They will use the SMART principle to help you set effective targets.

(a) Why do targets need to be **measurable**?

(1)

.....

.....

(b) Give an example of a **measurable** target that a sprinter may set.

(1)

.....

.....

(Total for Question 8 = 2 marks)

9 (a) Which of the following is considered to be the **most** dangerous to our health?

(1)

.....

(b) Why is it unlikely that an individual with a healthy lifestyle will have a weight-related health issue?

(2)

.....

.....

.....

.....

(Total for Question 9 = 3 marks)

10 Different people will have different body types depending, in part, on their lifestyle choices. The participants in **Figure 5** both have appropriate body types for the physical activity they participate in.

(Source: Action Plus)

High jumper

(Source: Associated Sports Photography/Alamy)

Tennis player

Figure 5

Complete the table below.

(a) Name the body type of each participant shown in **Figure 5**.

(2)

(b) State **one** reason why this body type is an advantage to the participant shown in **Figure 5** in their physical activity.

(2)

Performer	(a) Body type	(b) Reason for advantage
High jumper		
Tennis player		

(Total for Question 10 = 4 marks)

11 Diet is an important factor to consider when planning for a healthy, active lifestyle. Identify **two** diet factors that will influence personal health.

(Total for Question 11 = 2 marks)

12 Explain how blood shunting supports performance during exercise.

(Total for Question 12 = 3 marks)

13 (a) Some participants take illegal performance enhancing drugs to control their heart rate, despite the obvious health risks.

What effect do beta blockers have on a participant's heart rate?

(1)

(b) Some people take recreational drugs which can harm their body systems and health.

What effect does drinking alcohol have on blood pressure?

(1)

(Total for Question 13 = 2 marks)

14 The biceps and triceps work as an antagonistic muscle pair. Using another example, explain the term 'antagonistic muscle pair'.

(Total for Question 14 = 4 marks)

15 Ria is 15 and is taking GCSE PE. To improve her lifestyle she is planning a Personal Exercise Programme (PEP) to increase the amount of physical activity she is involved in.

You are helping Ria to plan her PEP. At the moment Ria is unsure about what athletics event she would like to participate in.

Ria might choose the discus as her event.

(a) Name a suitable training method for Ria and justify your choice.

(2)

Training method

.....

Justification

.....

.....

(b) Ria plans to sustain her involvement in exercise and physical activity.

Identify **one** long-term effect of participation in exercise on Ria's heart.

(1)

.....

.....

(c) Regular participation in physical activity is thought to be beneficial to the individual.

Explain how Ria's participation in physical activity can stimulate physical challenge.

(2)

.....

.....

.....

.....

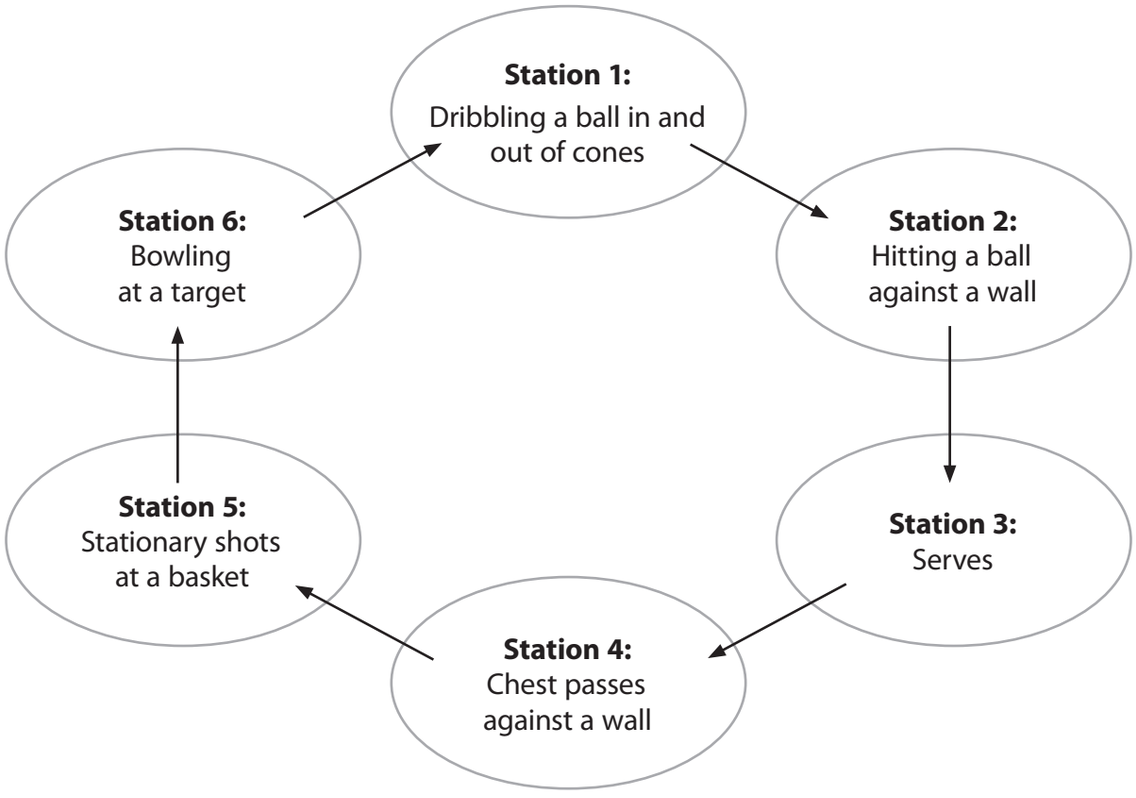
.....

(Total for Question 15 = 5 marks)

16 George is 16 and is taking GCSE PE. He plays basketball and badminton for his school.

George is learning about circuit training, and this is his first attempt at planning his circuit.

His six stations are shown below.



(a) (i) Identify **one** station which you would **not** include in George's circuit.

(1)

.....

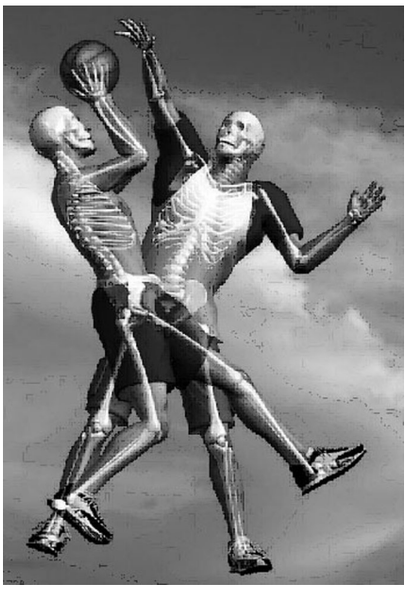
(ii) Give a reason for your answer in (a)(i).

(1)

.....

.....

(b) Physical activity and exercise has an impact on the growth and development of body systems. **Figure 6** shows the skeletal systems of George and his friend whilst they play basketball.



(Source: Carol and Mike Werner/Alamy)

Figure 6

(i) What long-term effect does George's regular participation in basketball and exercise have on his bones?

(1)

.....

(ii) Name **four** weight-bearing exercises, aside from basketball, that George can do to prevent osteoporosis in the future.

(4)

1 .....

2 .....

3 .....

4 .....

(c) As part of his Personal Exercise Programme (PEP) George measures his heart rate to check on his fitness levels.

The graph in **Figure 7** shows George's heart rate at three points during two training sessions.

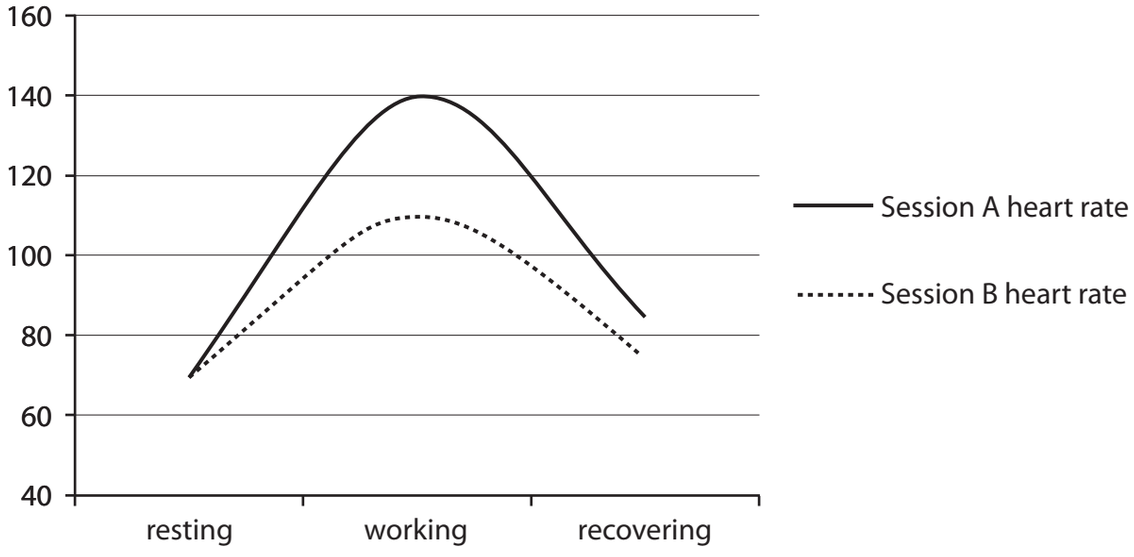


Figure 7

Using the information in the graph, compare the impact of both training sessions on George's future fitness.

(3)

(d) During an exercise session George's blood pressure will increase.

Explain why **both** types of blood pressure will increase.

(4)

(Total for Question 16 = 14 marks)

***17** Chloe is a good all-round sports performer and could represent her school in many different sports.

Discuss the key influences that could impact on Chloe's choice of physical activities.

(Total for Question 17 = 6 marks)

***18** Figure 8 shows three different types of participant engaging in exercise and physical activity.

(Source: Abraham Menashe/Alamy)

Javelin thrower

(Source: L. Scott)

Long distance runner

(Source: Clipart.com)

Tennis player serving

Figure 8

Assess the relative importance of **power** to each type of participant in **Figure 8**.

(Total for Question 18 = 6 marks)

TOTAL FOR PAPER = 80 MARKS

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Mark Scheme

Sample Assessment Material

GCSE Physical Education (5PE01/01)
Unit 1: The Theory of Physical Education

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Sample Assessment Material
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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.
- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:

  i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear

  ii) select and use a form and style of writing appropriate to purpose and to complex subject matter

  iii) organise information clearly and coherently, using specialist vocabulary when appropriate.

Question Number	Answer	Mark
1(a)	B	(1)

Question Number	Answer	Mark
1(b)	A	(1)

Question Number	Answer	Mark
1(c)	D	(1)

Question Number	Answer	Mark
1(d)	B	(1)

Question Number	Answer	Mark
1(e)	D	(1)

Question Number	Answer	Mark
1(f)	B	(1)

Question Number	Answer	Mark
1(g)	C	(1)

Question Number	Answer	Mark
1(h)	B	(1)

Question Number	Answer	Mark
1(i)	D	(1)

Question Number	Answer	Mark
1(j)	A	(1)

Question Number	Answer	Mark
2	1. performers can gain stress relief (1) by focusing on the activity rather than on their problems (1) 2. they can gain increased self esteem (1) if they are good at a sport and receive status from others as a result (1) 3. They can have fun if they enjoy (1) physical activity because they are doing something they like (1) (2 X 2)	**4**

Question Number	Answer		Mark
3	**Quality**	**Explanation**	
	Good motivator	Coaches will need to make people do things they don't necessarily want to do (1) therefore they need to be able to motivate them to encourage them to do what the coach wants, (1) for example, to continue to train even though they just lost/feel like they can never win. equiv	
	Good communicator	So players understand the guidance they are given (1) so that improvements in performance can be made (1) equiv	
	(2 X 2)		**4**

Question Number	Answer	Mark
4	Accept any two from the following 1. create opportunities for talented performers (1) to be successful (1) 2. retain people in sport (1) for health benefits (1) 3. educate to improve diet (1)to improve health (1) (2 X 2)	**4**

Question Number	Answer	Mark
5(a)	Body composition	(1)
5(b)	Coordination	(1)
		2

Question Number	Answer	Mark
6	Any **one** application plus explanation. 1. specificity (1)– make sure the exercises focus (1) on flexibility of the shoulder 2. individual needs/differences (1)– establish a base line for the individual's flexibility and set targets around that (1) 3. rest and recovery (1)– make sure the ratio of work to rest was appropriate for progress without causing or leading to injury of the shoulder (1) If FITT principle selected needs full explanation of frequency; intensity; time and type – making sure train often enough (but not too often) progressively overloading through increasing the intensity or time and ensuring matches needs of fencers	**2**

Question Number	Answer	Mark
7 (a)	If they were injured, ill or de-motivated and stopped training/ equivalent.	(1)
7 (b)	Progressive overload means to gradually increase the work you do/ equivalent. (1) If you increase the work, ie you lift more weights you will be stronger, therefore fitter/ equivalent (1) **Notes** There needs to be a definition and an explanation, a link between the principle and why fitness increases; it would not be enough to just say you get stronger	(2)
		3

Question Number	Answer	Mark
8(a)	So it is possible to see whether progress has been made To reduce times by 1/100 of a second/equivalent (answers must include a measurement) **Notes** Accept any similar realistic answer	(1) (1)
		2

Question Number	Answer	Mark
9(a)	Anorexic	(1)
9(b)	1. Because they will follow a balanced diet (1), therefore eating an appropriate amount (1)/equiv 2. Improved self-esteem/confidence (1) as a result of healthy lifestyle (1). 3. Regular exercise will help reduce weight if overweight (1) provided burning more calories than eating (1) c/f from (a) not required (1 X 2)	(2)
		3

Question Number	Answer	Mark
10(a)	High Jumper — Ectomorph Tennis player — Mesomorph	(1) (1)
10(b)	High jumper — light, therefore less weight to lift over the bar/tall so less distance to travel to clear the bar/ equivalent Tennis player — muscular, therefore can hit the ball harder, making it harder for opponents to return/ equivalent	(1) (1)
		4

Question Number	Answer	Mark
11	Accept specific comment • eg eat too much become overweight • Eg Don't eat enough become anorexic/equiv (1 × 2)	**2**

Question Number	Answer	Mark
12	1. it supports by <u>increased</u> oxygen delivery to <u>working</u> muscles 2. diversion of blood depending on the needs of the body/equiv 3. during exercise blood is shunted to active muscles/away from inactive areas	
		3

Question Number	Answer	Mark
13(a) **13(b)**	Calming effect on performer's heart rate/ slows it down/ equivalent Raises the blood pressure	(1) (1) 2

Question Number	Answer	Mark
14	Example 1. Quadriceps and hamstrings Explanation (max 3) 2. As one muscle contracts the other relaxes (1) 3. Relaxing muscle is antagonist/contracting muscle is agonist (1) 4. The antagonist muscle is responsible for moving the body part back to its original position **but** becomes the agonist to bring about the movement (1 + 1) Accept following provided linked to correct movement within activity: • pectorals/latissimus dorsi • anterior deltoids/posterior deltoids • trapezius/deltoids • abdominals/spinal erectors • left and right external obliques Do not accept abbreviations for muscles If explanation included in example then credit. For example this would achieve two marks: As the hamstrings contracts the quadriceps relax to allow the leg to flex at the knee	**4**

Question Number	Answer	Mark
15(a)	Method: Weight/weight training/ resistance/ resistance training Reason: To increase her strength/ build muscle/ increase distance thrown/ more power to throw further	(1) (1)
15(b)	Increased strength / size / stronger/ increase strength of contraction /cardiac hypertrophy	(1)
		3

Question Number	Answer	Mark
15 (c)	**One mark for relevant example, one mark for explanation** The activity means that you test the fitness levels of the body to the limit (1) Because you are working so hard physically you need to be mentally tough to keep going (1) **Examples** Forcing yourself to keep going and not giving up in a marathon (1) even though the body is tired (1) Even though you are afraid of heights you go abseiling (1) and overcome your fear to complete the activity (1)	
		2

Question Number	Answer	Mark
16(a)(i) **16(a)(ii)**	Station 6: Bowling at a target / Station 2: Hitting a ball against a wall The station does not relate to either of the sports George plays (basketball and badminton)	(1) (1) 2

Question Number	Answer	Mark
16(b)(i)	Increases his bone density **Notes** Do not accept prevents osteoporosis	(1)
16(b)(ii)	Walking Running Tennis Aerobics **Notes** Accept any other forms of weight-bearing exercise, excluding basketball, for a maximum of four	(4)
		5

Question Number	Answer	Mark
16 (c)	1. Although session A HR reaches 110 bpm this will not be within Joe's target zone, if this is the intensity Joe normally works at he is unlikely to increase fitness 2. Session B has a HR which is within the target zone for his age range and should help to increase his fitness. 3. Session B is better exercise than session A for future fitness. (3 x 1)	**3**

Question Number	Answer	Mark
16(d)	1. Systolic (1) BP when heart pumps blood into the arteries when the heart is contracting, therefore as exercise increases HR BP will increase (1) 2. Diastolic (1) This is the BP in the arteries when the heart is relaxing, the period of time relaxing is reduced during exercise so this BP will rise as well (1) Do not accept BP increases unless qualified explanation as stated above. (2 X 2)	**4**

Question Number		Indicative content
17 QWC (i-iii)		**Cultural:** Age – minimum entry age eg for some distance running events Disability – disability that might prevent her from taking part in some activities Gender – whether the activity is available for a girl Culture/religion – whether Chloe's culture/religion restrict the activities she is able to take part in eg dress **Health and wellbeing:** Whether Chloe's health prevent her from taking part in some activities. Are certain activities believed to have a positive influence on Chloe's health? eg swimming for asthmatics **Image:** Fashion – is the activity, and any associated resources (clothing, equipment) fashionable? Media coverage – does the activity get media coverage? **People:** Family – are Chloe's family involved/not involved in the activity (playing, coaching)? Will Chloe be introduced to the activity by her family? Peers – are Chloe's peers involved/not involved in the activity? Role models – does the activity have positive/influential role models? **Resources:** Access – can Chloe get transport to the activity? Availability – does Chloe have the resources to take part in the activity, can she get them? eg equipment Location – do the resources exist locally? **Socio-economic:** Cost – can Chloe afford to take part? eg membership, equipment Status – is the activity seen as appropriate? eg polo or football?
Level	Mark	Descriptor
0	0	No rewardable material.
1	1-2	A few key points identified, **or** one point described in some detail. The answer is likely to be in the form of a list. Only one aspect considered. Points made will be superficial/generic and not applied/directly linked to the situation in the question. Candidates' writing communicates ideas using everyday language, but lacks clarity and organisation. There will be frequent errors in candidates' spelling, grammar and punctuation.
2	3-4	Some points identified, or a few key points described. Consideration of more than one aspect but there will be more emphasis on one of them. The answer is unbalanced. Most points made will be relevant to the situation in the question, but the link will not always be clear. Candidates' writing communicates ideas with accurate use of appropriate terminology, and the organisation of the response shows some direction and

		control. There will be few errors in spelling, punctuation and grammar.
3	5-6	Range of points described, or a few key points explained in depth. All sides of the case are considered and the answer is well-balanced, giving weight to all aspects. The majority of points made will be relevant and there will be a clear link to the situation in the question. Candidates' writing communicates ideas effectively using appropriate terminology, and organises material clearly and coherently. Spelling, punctuation and grammar will be accurate throughout the response.

Question Number		Indicative content
18 QWC (i-iii)		<u>Importance of power to participants:</u> • Tennis player – uses power in serve/ground strokes/equiv – use of power to give opponent less time on ball – doesn't use power continuously (need to recover, use of 'touch' shots) • Javelin thrower – use of power to throw javelin as far as possible – maximum power needed for maximum force – most important component of fitness/has biggest outcome on event • Long distance runners – does need power for final sprint for line – needs power to get away from other runners at start or end of race – power not most important component of fitness (will also need cardiovascular and muscular endurance) <u>Power in relation to other shown participants:</u> • All use power, the ability to carry out strength performances quickly • But varying levels of importance to their performance • Rank order – javelin thrower/tennis/long distance runners
Level	Mark	Descriptor
0	0	No rewardable material.
1	1-2	A few key points identified, **or** one point described in some detail. The answer is likely to be in the form of a list. Only one aspect considered. Points made will be superficial/generic and not applied/directly linked to the situation in the question. Candidates' writing communicates ideas using everyday language, but lacks clarity and organisation. There will be frequent errors in candidates' spelling, grammar and punctuation.
2	3-4	Some points identified, or a few key points described. Consideration of more than one aspect but there will be more emphasis on one of them. The answer is unbalanced. Most points made will be relevant to the situation in the question, but the link will not always be clear. Candidates' writing communicates ideas with accurate use of appropriate terminology, and the organisation of the response shows some direction and control. There will be few errors in spelling, punctuation and grammar.
3	5-6	Range of points described, or a few key points explained in depth. All sides of the case are considered and the answer is well-balanced, giving weight to all aspects. The majority of points made will be relevant and there will be a clear link to the situation in the question. Candidates' writing communicates ideas effectively using appropriate terminology, and organises material clearly and coherently. Spelling, punctuation and grammar will be accurate throughout the response.