

## Health, Fitness and Well-Being Exam Practice

**Q1.** Which **one** of these somatotypes is most suited to high jumping?

- A Ectomorph
- B Endomorph
- C Mesomorph

(Total 1 mark)

**Q2.** How many calories should an average adult female consume per day?

- A 1500
- B 2000
- C 2500
- D 3000

(Total 1 mark)

**Q3.** Which **one** of the following activities would be most suitable for an ectomorph?

- A Olympic weightlifting
- B Shot put
- C High jump
- D Canoeing

(Total 1 mark)

**Q4.** Which **one** of the following is a positive long-term effect of a healthy active lifestyle?

- A Lower resting heart rate
- B Increased breathing rate
- C High blood pressure
- D Tiredness in the muscles

(Total 1 mark)

**Q5.**Which **one** of the following activities would be **most** suitable for an ectomorph body type?

- A Basketball
- B American football
- C Olympic weightlifting
- D Judo

**(Total 1 mark)**

**Q6.**Which **one** of these helps the digestive system to work efficiently?

- A Protein
- B Fibre
- C Vitamins
- D Fats

**(Total 1 mark)**

**Q7.**Fatigue often occurs when a person is participating in a physical activity. What is meant by the term 'fatigue'? **(Total 1 mark)**

**Q8.**What is a balanced diet? **(Total 3 marks)**

**Q9.**One possible consequence of a sedentary lifestyle is obesity. Identify **two** other consequences of a sedentary lifestyle. **(Total 2 marks)**

**Q10.**Outline **three** benefits of taking part in physical activity and sport to an individual's physical health and well-being. **(Total 3 marks)**

**Q11.**A group of amateur runners are attempting their first marathon. Some of the runners take advantage of the drinks offered to them during the race whilst others do not. Evaluate the actions of the runners who do not take advantage of the drinks available. **(Total 3 marks)**

**Q12.**Diet can have a positive effect on a sporting performance. Explain why a diet high in carbohydrates could lead to an improvement in a sportsperson's performance. **(Total 3 marks)**

**Q13.**Explain how drinking water and other fluids could help to improve a sportsperson's performance. **(Total 3 marks)**

**Q14.**An individual may take part in non-competitive activities as part of their leisure and recreation time. State **five** benefits of taking part in a non-competitive activity. **(Total 5 marks)**

- Q15.** (a) An ectomorph is one body type. Name **two** other body types. **(2)**  
(b) Describe an ectomorph. **(3)**  
(c) Explain **one** advantage that having an ectomorph body type would give in a named physical activity. **(2)**

**(Total 7 marks)**

**Q16.** A person's diet can affect their ability when participating in physical activity. Name **two** nutrients that the Westshore netball players should include in their diets **and** explain how each could help to improve their performance late in matches. **(Total 6 marks)**

**Q17.** State and explain **two** different ways in which a high protein diet could help to improve a sports person's performance. **(Total 4 marks)**

**Q18.** Using an example from a named physical activity, explain why a sports person may consume more fat in his / her diet in order to improve performance. **(Total 3 marks)**

**Q19.** People take part in physical activities for different reasons. State **three** reasons why people choose to take part in relaxing activities, such as yoga. **(Total 3 marks)**

**Q20.** Most outdoor and adventurous activities are physically very demanding. State **two** benefits of providing high carbohydrate meals at an outdoor and adventurous activity centre. **(Total 2 marks)**

**Q21.** There is a trend towards obesity in young people. State what obesity is **and** explain how a young person can avoid becoming obese. **(Total 3 marks)**

**Q22.** Explain the negative effects that obesity can have on the body. **(Total 3 marks)**

**Q23.** Diet is an important factor to consider when participating in a physical activity. Explain how a carbohydrate loading diet could help an athlete to perform to the best of their ability in a half marathon. **(Total 4 marks)**

**Q24.** More people over 65 years of age are taking part in a range of physical activities. Explain why swimming is an appropriate physical activity for a healthy 65-year-old person.

**(Total 3 marks)**

**Q25.** Other than an improvement to fitness, give **two** reasons why a family may benefit from becoming members of a local health club. **(Total 2 marks)**

**Q26.** Explain how a swimmer's knowledge of food and nutrition could be used to improve their performance in a 800m freestyle event.

**(Total 6 marks)**

**Q27.** The sports nutritionist advises that fibre is an important nutrient in Usain Bolt's diet because it keeps his digestive system healthy. Name **three** other nutrients that are important in Usain Bolt's diet and explain how each may help his performance in training and in competition. **(Total 6 marks)**

**Q28.**Diet is extremely important to improve sporting performance. Why does the body need protein? **(Total 2 marks)**

**Q29.**For what type of activity would a sportsperson use 'carbohydrate loading'? **(Total 1 mark)**

**Q30.**Explain how and why a sportsperson would include carbohydrate loading in their diet. **(Total 3 marks)**

**Q31.**State and explain **two** reasons why people choose to take part in physical activities. **(Total 4 marks)**

**Q32.**Regular exercise is important to help maintain a healthy lifestyle. State **two** reasons why taking part in regular exercise can improve your health. **(Total 2 marks)**

**Q33.**Describe a mesomorph body type and explain why this body type helps a sportsperson to perform well in either football, swimming or cross country. **(Total 4 marks)**

**Q34.**During an athletics competition, the organiser wants to promote a balanced diet to encourage healthy living.

- (i) State **three** types of food that should be available from the food and drink stalls. **(3)**
- (ii) Explain how a balanced diet can help to improve an athlete's performance. **(6) (Total 9 marks)**

**Q35.**Maintaining a balanced diet is essential for all performers. What is dehydration? How can a performer avoid becoming dehydrated? **(Total 2 marks)**

**Q36.**Maintaining a balanced diet is essential for all performers. If a performer does not have a balanced diet, they may experience problems. Name **one** of these problems (**not** dehydration). Describe the problem you have named and state how this problem might have been caused. **(Total 3 marks)**

**Q37.**(a) Describe a suitable meal for a young athlete the night before a 5km fun run. **(5)**  
(b) State and explain the principles of training that a young athlete would need to consider before a 5km fun run. **(8) (Total 13 marks)**

**Q38.**A balanced diet is very important for a sports performer.

- (i) **Explain** why carbohydrates are a necessary part of a performer's diet. **(2)**
- (ii) **Explain** why it is important to maintain an intake of fluids (water) when taking part in sporting activity. **(2)**
- (iii) **Explain** what is meant by the term obesity. **(2) (Total 6 marks)**

**Q39.**Physical performance and general health can be affected by obesity.

- (i) State **two** factors that can cause obesity. **(2)**
- (ii) Protein is an important substance in a performer's diet as it is used for the growth and repair of muscle. Name **one** other substance important in a performer's diet and explain why it is important. **(2) (Total 4 marks)**

**Q40.**A club standard performer needs to be healthy and have a good level of general fitness.

- (i) What is meant by 'healthy'? **(1)**
- (ii) What is meant by 'general fitness'? **(1)**
- (iii) Explain how these elements combine to enable a performer to compete at club level. **(2) (Total 4 marks)**

**Q41.**Maintaining a balanced diet is essential for all performers.

- (i) **What** is dehydration and **how** can it be avoided? **(2)**
- (ii) Other than dehydration, **describe one** deficiency, or problem, that can arise from not having a balanced diet. **State** how this could be caused. **(3) (Total 5 marks)**

**Q42.**Name **two** body systems involved in providing energy for movement and physical activity. **(Total 2 marks)**

**Q43.** General physical fitness varies from person to person. What are the long-term benefits of regular exercise? **(Total 7 marks)**

**Q44.**Use examples to explain the effects that physique may have on performance. **(Total 5 marks)**

**Q45.**What would be the benefits to the individual of having good, general physical fitness? **(Total 8 marks)**

**Q46.**Give **two** food types that provide energy for movement. **(Total 2 marks)**

**Q47.**What does somatotype mean? **(Total 1 mark)**

**Q48.** Give **two** activities for which an endo-mesomorph is best suited. **(Total 2 marks)**

**Q49.**Give **three** signs or symptoms of dehydration. **(Total 3 marks)**

## **Mark schemes**

Q1.A [1]

Q2.B [1]

Q3.High jump [1]

Q4.Lower resting heart rate [1]

Q5.Basketball [1]

Q6.Fibre [1]

**Q7.**Award **one** mark for stating what is meant by the term fatigue.

Fatigue is a feeling of **extreme** or **severe** (physical or mental) tiredness or exhaustion. [1]

**Q8.**Award **one** mark for each of the following points up to a maximum of three marks.

- Eating the right amount (for energy expended) / the right amount of calories / eating according to how much you exercise (1)
- Eating different food types to provide suitable nutrients, vitamins and minerals (1)
- Eating a diet that contains 55–60% carbohydrates (1)
- Eating a diet that contains 25–30% fat (1)
- Eating a diet that contains 15–20% protein (1)

Accept any other suitable description of a characteristic of a balanced diet. [3]

**Q9.**Award **one** mark for each of the following points up to a maximum of two marks.

- Heart disease (1)
- Diabetes (1)
- Poor self-esteem (1)

Accept any other suitable consequence of a sedentary lifestyle. Do not credit obesity as it has been identified as a consequence in the question stem. [2]

**Q10.**Award **one** mark for each of the following points up to a maximum of three marks.

- Improves heart function so more efficient for exercise (1)
- Improves efficiency of the body systems so able to exercise for longer / more intense (1)
- Reduces the risk of some illnesses so more able to carry out exercise (1)
- Able to do everyday tasks more efficiently so less likely to become fatigued (1)
- Avoid obesity so less likely to suffer speed loss / development of further disease (1)

Accept any other suitable benefit of taking part in physical activity to an individual's physical health and well-being. Benefits must be outlined rather than simple statements. [3]

**Q11.**Award **one** mark for each of the following points up to a maximum of three marks. Consequences of dehydration must be linked to the effects on performance in a marathon.

- More likely to suffer from dehydration, which has a negative effect on running performance (1)
- More likely to suffer from increases in heart rate so the heart has to work harder to supply oxygen to the muscles when running (1)

- Reduction in blood flow to working muscles / thicker (viscous blood) which means less oxygen to the muscles and it is harder to remove waste products – slows recovery so harder to continue in the marathon (1)
- Increase in body temperature so body could overheat during the race and become faint / pass out and cannot carry on (1)
- Muscle fatigue more likely which could cause cramps so cannot carry on (1)

Accept any other suitable evaluative points linking dehydration to performance in a marathon. [3]

**Q12.** Award up to **three** marks for explaining why a diet high in carbohydrates could lead to an improvement in a sportsperson's performance.

- Provides fast release energy supply or readily available energy for a quick boost / for short or explosive type activities / allowing performers to run faster or throw or jump further. OR
- Provides slow release energy supply / or endurance type activities or to delay fatigue / allowing performers to compete for longer. OR
- Provides and increases the amount of glycogen or energy stored/ delaying tiredness / allowing the performer to be more effective at the end of an endurance or aerobic activity. OR
- Aids recovery / reducing stiffness and soreness / so the performer can train again sooner. [3]

**Q13.** Award up to **three** marks for explaining how drinking water and other fluids could help to improve a sportsperson's performance.

Drinking water and other fluids:

- Maintain hydration or prevent dehydration / to avoid cramp / so the performer is able to keep working hard or can work for longer / at a higher level.
- Maintain hydration / to maintain focus or concentration / so the performer makes fewer mistakes / and can perform at a higher level.
- Maintain hydration / provide electrolytes / allowing the body to replace lost salts / so the performer is able to continue working for longer or faster or at a higher level. [3]

**Q14.** Award up to **five** marks for stating benefits of taking part in a non-competitive activity.

- General fitness can be improved.
- Specific aspects of fitness can be improved / including flexibility / stamina / agility etc.
- General health can be improved.
- Physical health benefits / including weight loss / body shape / lower cholesterol etc.
- Mental health benefits / including stress release / feel good factor / having fun / improved self-esteem etc.
- Activities are not generally stressful on the body's cardiovascular and skeletal systems.
- Can be suitable for all age ranges.
- Participation can carry on throughout life.
- Group activities can provide social benefits by meeting and carrying out the activity with others.
- Completing activities can be done at the individual's pace.
- Being non-competitive can be appealing in itself.
- May involve club activities, which can motivate a person to regularly participate.
- Suitable for males and females to participate together.

Accept any other suitable response. [5]

**Q15.(a)** Award up to **two** marks for naming other body types.

- Endomorph.
- Mesomorph.

(b) Award up to **three** marks for the correct description of an ectomorph.

An ectomorph is:

- slender or slim or thin or skinny.
- thin arms and legs.
- narrow shoulders.
- narrow hips.
- very little muscle.
- very little fat.
- long (tall) – accept short.

3

(c) Award up to **two** marks for explaining an advantage that having an ectomorph body type would give in a named physical activity.

Examples include:

- in endurance activities (marathon or long distance running) it would be easier to run / because very little weight to be carried around.
- in high jump a lighter body weight / would make it easier to jump over the bar.
- in netball it would be an advantage because a goal shooter would have a higher reach / to give the team a higher chance of scoring.
- in basketball it would be an advantage because it would be easier for the player to shoot / as they are closer to the basket or the opposition wouldn't be able to block the shot.

Accept any other suitable response.

**NB** The advantage must be given to credit the explanation.

2 [7]

**Q16.** Award **one** mark for each nutrient named and up to **two** further marks for explaining how each could help to improve their performance late in matches (2x3).

- Proteins / will help with the growth or repair of muscles to reduce recovery time between matches / which will delay the feeling of tiredness.
- Carbohydrates or fats / to provide energy throughout the whole game / to ensure they can compete to their maximum.
- Water / to maintain fluid levels or to avoid dehydration to help concentration or reduce fatigue / to continue to compete effectively (make fewer mistakes).
- Minerals eg Iron / increase the body's efficiency to carry oxygen to the working muscles of the body / which will allow them to compete effectively for longer.
- Vitamins eg vitamin C / to protect against disease and infection which will enable training to continue / so fitness levels will not be lost.
- Fibre / helps reduce levels of cholesterol making the heart more efficient / which will allow them to keep working for longer.
- Fats / can act as an insulator to help keep players warm / so they can continue to compete in cold weather.

**NB** Named vitamins and minerals correctly linked to how it helps performance are acceptable. Fats can only be credited once. [6]

**Q17.** Award **one** mark for stating and **one** further mark explaining each way a high protein diet may help to improve a sportsperson's performance, up to a maximum of **four** marks (2x2).

- Repair or recovery of muscle or tissue / return to training or competition earlier.
- Growth of muscle or increased strength / exert more power or eg when throwing a javelin.
- Reduces storage of fat or helps lose weight / more effective performance as not carrying surplus weight.

[4]

**Q18.** Award **one** mark for the example and a further **two** marks for why a sportsperson may consume more fat in his / her diet.

- Marathon / as a high energy source/ delay tiredness.
- Open water swimming / as an insulator or to keep warm / to be able to swim for longer.
- Long distance cycling / slow release energy / improve performances in latter stages.



- Rugby prop forward or sumo wrestler / as additional weight / more pressure on opposition.
- Accept any other suitable response. [3]

**Q19.** Award **one** mark for stating each reason why people choose to take part in relaxing activities, such as yoga.

- Enjoyment or fun.
- Company or social benefits.
- Maintain or improve health / lower blood pressure.
- Mental benefits / release of stress / keeps mind active.
- Sense of achievement or personal fulfilment.
- Low intensity activity / less physically demanding.
- Maintain or improve fitness / flexibility / balance.
- Non-competitive.

Accept any other suitable response. [3]

**Q20.** Award **two** marks for stating the benefits of providing high carbohydrate meals at an outdoor and adventurous activity centre.

- Main energy source.
- Slow release energy / so visitors can complete all of the activities throughout the day or delay the onset of fatigue. [2]

**Q21.** Award **one** mark for stating what obesity is.

- Obesity is being extremely over weight or abnormally fat
- BMI of 30 and over or when a person is 20% over the standard weight for their height

Award a further **two** marks for describing how a young person can avoid becoming obese

- Obesity can be avoided by taking part in regular exercise and / following a balanced or healthy diet or not over eating
- Obesity can be avoided by maintaining an energy balance / the amount of food energy taken in should not exceed the energy expended. [3]

**Q22.** Award up to **three** marks for explaining at least two negative effects of obesity on the body.

**NB** maximum of **two** marks for one detailed explanation or three stated without explanation.

- Obesity increases strain on the joints / increasing the risk of injury or osteoarthritis
- Obesity increases strain on the cardiovascular system / increasing risk of heart disease
- Obesity can cause high blood pressure or high cholesterol or clogs the arteries / resulting in a stroke or heart attack
- Obesity increases the strain on the respiratory system / leading to shortness of breath
- Obesity increases the risk of diabetes / resulting in early mortality
- Obesity decreases mobility / resulting in a lack of speed or agility
- Obesity causes early onset of fatigue / resulting in giving up quicker. [3]

**Q23.** Award up to **four** marks for a full explanation of how a carbohydrate loading diet could help an athlete to perform to the best of their ability.

By eating (high-carbohydrate) meals such as pasta / which is a slow release energy source / in the three days before the half marathon / an athlete will increase the glycogen level in their muscles and liver / to its maximum/so an athlete would have more energy available during the run. / This would help to delay the onset of fatigue (or reduce levels of fatigue) / and could help their to maintain their performance in the later stages of the run / as glycogen is as an immediate reserve source of available glucose for muscle cells. / Their liver will also readily break down its stored glycogen into glucose / and send it through the blood stream as fuel for their

muscles. [4]

**Q24.** Award up to **three** marks for explaining why swimming is an appropriate activity for a healthy 65 year old person.

- Less strenuous or will not over stress / the heart or joints
- Non weight bearing / less damage to joints
- Can be done at own pace / can do as much or little as you want
- Uses all muscles / a way of keeping active
- It raises the heart rate / it develops fitness or health
- Can be performed all year round / as it is an indoor activity
- Relatively cheap / may be concessions for elderly
- It is a social activity / good way of making or maintaining friendships

Accept any other suitable response. [3]

**Q25.** Award **one** mark for each reason why a family would benefit from becoming members of a local health club.

- Social benefits to the family
- Have fun together
- Allows them to compete against each other
- Able to relieve tension within the family
- Meet other families or people with similar interests
- Spending more time together
- To encourage the family to participate in a new physical activity
- Enables family members to lose weight or improve physical appearance
- Encourages family members to become more engaged in physical activity
- To improve self-esteem or self-confidence.

Accept any other suitable responses.

**NB Do not credit answers related to fitness**

**NB Definition of health is only worth 1 mark [2]**

**Q26.** Please use the following grid to award a mark for both the content and the Quality of Written Communication (QWC) based on the following information.

QWC is part of the award of marks in levels marked questions only. In levels marked answers the quality of physical education is assessed and a level mark awarded based on the content. As is sometimes the case, the physical education may be sound at a particular level but the examiner may not be sure as to whether there is quite enough to raise the mark **within** that level. In this case the examiner should consider the QWC of the answer.

QWC that fulfils the criteria for the level should lead to a rise in the mark but where QWC does not fulfil the criteria, the answer should remain at the mark first thought appropriate.

In cases where QWC has been used in the award of marks, the examiner should indicate this in a comment box say 'QWC raised mark to show an upward trend'. QWC cannot be used to raise a candidate's mark into the next level.

<b>Level 3</b>	<b>5 – 6 marks Detailed and Accurate</b> Demonstrates detailed knowledge and thorough understanding of how food and nutrition could be used to <b>improve</b> a swimmer's performance in the 800m freestyle event.  Answers should include at least 3 detailed explanations.
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	<p><b>NB</b> Two detailed explanations <b>and</b> one sound explanation (maximum 5 marks).</p> <p>Candidates spell, punctuate and use rules of grammar accurately and use a wide range of specialist terms precisely.</p>
<b>Level 2</b>	<p><b>3 – 4 marks Sound and generally accurate</b></p> <p>Demonstrates sound knowledge and understanding of how food and nutrition could be used to <b>improve</b> a swimmer's performance in the 800m.</p> <p>Answers should include at least 2 sound explanations.</p> <p><b>NB</b> One detailed explanation (maximum 3 marks).</p> <p>Candidates spell, punctuate and use rules of grammar with reasonable accuracy and use a range of specialist terms appropriately.</p>
<b>Level 1</b>	<p><b>1 – 2 marks Basic</b></p> <p>Demonstrates basic knowledge and understanding of how food and nutrition could be used to <b>improve</b> a swimmer's performance in the 800m freestyle event.</p> <p>Answers will include only basic explanation(s).</p> <p><b>NB</b> Answers limited to one explanation with little reference to how they can help a swimmer's performance (maximum 1 mark).</p> <p>Candidates spell, punctuate and use rules of grammar with some accuracy. Limited use of a range of specialist terms.</p>
<b>0 marks</b>	No creditworthy material.

- A balanced diet will meet their active lifestyle demands
- To maintain the correct weight of an efficient and maximal performance
- Carbohydrates to supply a ready source of energy, any excess stored as glycogen. They will require slow, complex carbohydrates to enable them to sustain high intensity work over a long period of time
- Carbohydrate loading would be beneficial
- Simple carbohydrates also needed for short bursts of intensive activity (sprint finish), replenished throughout the event
- Fats also required as a major energy source
- Protein also required assisting in body growth and muscular repair. Allows the body to recover quicker, allowing training or competition the following day. Also enable the body to grow so gets stronger and more powerful, therefore more effective in performance
- Water to maintain hydration so body can function optimally when training. Loss of water affects performance quite dramatically, causing fatigue and loss of concentration. Also assists in transportation of nutrients, blood flow, oxygen transportation, waste removal and heat regulation
- Vitamins and Minerals will assist in many body and chemical processes. Main ones highlighted will be Iron (Oxygen transportation) and Calcium (bone strength and density).

**NB To gain marks in this question, a link has to be made to how nutrition can improve a swimmer's performance in a 800m freestyle event. [6]**

**Q27.** Award **one** mark for each nutrient identified and **one** further mark for explaining how it helps his performance, up to a maximum of **six** marks (3 × 2 marks). The mark for explanation **must** be linked to how it helps performance and not simply explaining what the nutrient is for.

- Protein / will help with the growth and repair of muscle needed when sprinting or training to reduce recovery time.
- Carbohydrate / to provide energy during training and competing to his maximum.
- Water / to maintain fluid levels or to avoid dehydration to continue to train or compete effectively.
- Fats / additional energy source to continue to train or compete effectively.
- Minerals eg iron / increase the body's efficiency to carry oxygen to the working muscles of the body or to produce energy to continue to train or compete effectively.
- Vitamins eg vitamin C / to protect against disease and infection to enable training or competing to continue.

**NB** Named vitamins and minerals correctly linked to how it helps performance are acceptable. [6]

**Q28.** Award **one** mark for each reason identified.

- Builds muscles
- Necessary to make enzymes and hormones
- Source of energy
- Repairs tissue within the body
- Essential to help body heal after injury
- Improve levels of concentration

**NB** Growth and repair = 1 mark, growth and repair of tissues / muscles = 2 marks. [2]

**Q29.** Award **one** mark for stating endurance type activities (lasting over 1 hour) or a relevant example eg marathon, football match. [1]

**Q30.** Award up to **three** marks for a detailed explanation.

**NB** Students must include how and why to gain maximum marks (2 + 1 or 1 + 2 marks).

**How** – reduce amount of training 4 to 5 days before event (tapering) / reduce carbohydrate stores / then 24 – 48 hours prior to the event increase carbohydrate intake / results in increased glycogen and energy stores.

**Why** – to be used throughout the event / can delay tiredness / improve performances in latter stages. [3]

**Q31.** Award **one** mark for stating why people choose to take part in physical activities and **one** further mark for the explanation, up to a maximum of **four** marks (2 × 2 marks).

Reasons for choosing to take part in physical activities:

- social benefits / company / to socialise / making or meeting friends / peer pressure / family pressure
- mental benefits / enjoyment or to have fun / relaxation / recharge batteries / chill out / cathartic / excitement / adrenaline rush / thrill / challenge / self-fulfilment / self-satisfaction / feel good factor / aesthetic / artistic appreciation
- physical benefits / maintain or improve fitness / accept any component of fitness / muscle tone
- high level of skill / because I am good at it
- overcoming obstacles / environment
- health reasons / relieves stress or tension / weight control / lowers BP.

Accept any other suitable response. [4]

**Q32.** Award up to **one** mark for each reason, identifying why taking part in regular exercise can improve your health up to a maximum of **two** marks. Two creditworthy points can be made in point one.

- Reduces stress or tension/ feel good factor or mental wellbeing.
- Improves fitness levels or physical wellbeing.
- Improves basic levels of strength or flexibility or endurance.

- Reduces the chances of illness or injury.
- Allows you to mix with other people or social wellbeing.
- Helps keep weight down/ look good.

Accept any other suitable response. [2]

**Q33.** Award up to **two** marks for describing what a mesomorph is.

- Well defined muscles/ broad shoulders/ wedge shaped or triangular or v-shaped/ narrow hips.

Award up to a further **two** marks for explaining why it allows a sports person to perform well in their chosen activities.

- Well defined muscles – which allow them to be strong/ in the tackle.
- Well defined muscles – which will give them more power/ for a start in swimming.
- Well defined muscles – which will give them muscular endurance/ to maintain performance in any of their activities.
- Broad shoulders – develop power/ needed in swimming arm action.

Accept any other suitable response. [4]

**Q34. (i)** Award **one** mark for each suitable food type or an example of the food type, up to a maximum of 3 marks. (No repetitions)

- Carbohydrates or pasta or rice or baked potatoes or cereal or energy bars
- Protein or meat or fish or pulses or nuts or eggs or poultry
- Fats
- Water or fluids
- Fruit or salad or vegetables
- Vitamins
- Minerals
- Fibre

Accept any other suitable response.

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(ii) Award up to **six** marks for explaining how a balanced diet can help to improve an athlete's performance.

Examples of content could include:

- a balanced diet will meet demands of an active sports person
- to maintain the correct weight for an efficient performance
- provide a ready source of energy, any excess stored as glycogen, good for slow release energy, therefore able to sustain activity for longer (accept fast and slow release energy)
- aids body growth, repairs muscular damage to aid recovery, useful after event
- ensure hydration to maintain water or fluid levels and replace water lost due to exercise. Also assists transportation of nutrients, allows blood to flow more easily, important as body demands more oxygen, heat control and waste removal.
- reduce fast food, fatty foods and simple carbohydrates to maintain weight
- fruit or vegetables are important for minerals and vitamins to aid the body processes
- fats to be taken in moderation as they are used as secondary source of energy and in insulation or bulk in certain sports.

6

**Please use the following grid to award a mark for both the content and the Quality of Written Communication (QWC) based on the following information.**

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In cases where QWC has been used in the award of marks, the examiner should indicate this in a comment box say 'QWC raised mark to show an upward trend'. QWC cannot be used to raise a candidate's mark into the next level.

<b>Level 3</b>	<b>5 – 6 marks</b> Suitable balanced diet justified or fully described. At least three components fully explained to clearly show how each can help to <b>improve</b> an athlete's performance. Candidates spell, punctuate and use rules of grammar accurately and use a wide range of specialist terms precisely.
<b>Level 2</b>	<b>3 – 4 marks</b> Suitable balanced diet justified with some description. Two components fully explained to show how each can help to <b>improve</b> an athlete's performance. NB one fully explained or two with some explanation (maximum 3 marks) Candidates spell, punctuate and use rules of grammar with reasonable accuracy and use a range of specialist terms appropriately
<b>Level 1</b>	<b>1 – 2 marks</b> Suitable balanced diet justified with limited description. At least one component with limited explanation to show how it can help to <b>improve</b> an athlete's performance. NB If balanced diet is explained with no reference to how it can help to improve an athlete's performance (maximum 1 mark) Candidates spell, punctuate and use rules of grammar with some accuracy. Limited use of a range of specialist terms.
<b>0 marks</b>	No creditworthy material

### Example Answers

Level 3 (6 marks)

*A balanced diet is essential to an athlete if they are to perform to their potential. A balanced diet would enable an athlete to maintain the correct weight for an efficient performance and to meet the demands of the performance. A balanced diet will provide an athlete with a ready source of either fast or slow release of energy through eating carbohydrates. Carbohydrates will improve performance by giving the athlete either a burst of energy for an explosive event or sustained energy for a long distance event. Protein is essential for growth and repair, which will enable the athlete to train hard and develop strength but also to aid recovery after training or competitions. Fats are also important as a secondary source of energy, particularly to benefit a performer over long periods. Hydration is essential to replace water lost during exercise. This will help with many bodily functions such as the transportation of nutrients and heat control. Loss of water has a dramatic effect on performance therefore it is important to stay hydrated if you wish to perform at your best. A balanced diet will enable an athlete to improve performance as exercise places great demands on the body. We have to fuel our bodies so that they can work at optimum levels and recover efficiently. It is important to take in the correct amounts otherwise any excess may be detrimental to performance.*

Level 2 (3 marks)

*A balanced diet is important to an athlete so that they can improve their performance. A balanced diet will supply energy through carbohydrates and fats. These are important*

*because if your energy levels fall, athletic performance will also fall. Protein will also improve performance. Protein helps in the growth and repair of muscles meaning you will have more strength for your event and recover more efficiently, therefore improving performance. When exercising you lose water through sweating so it is important to drink water/fluids to replace this. A balanced diet should also include fruit and vegetables (5-a-day) so that the body is supplied with minerals and vitamins. All these will help the body to work at its best. This will help improve performance.*

Level 1 (1 mark)

*A balanced diet is really important to an athlete. It is made up of carbohydrates, protein, fats, vitamins and minerals, fibre and water. Carbohydrates will give you sufficient energy so that you can perform to your best throughout your event. Protein will help growth and repair. When you exercise you sweat so you need to replace the water.*

(0 marks)

*A balanced diet is important to an athlete so that they can improve their performance. A balanced diet will include carbohydrates, proteins and fats. They should also eat fruit and vegetables and drink water. [9]*

**Q35.** Award a maximum of **two** marks: **one** mark for correctly explaining what dehydration is and **one** further mark for correctly explaining how it can be avoided.

Examples include:

- having an abnormally low water content in the body/ drink sufficient amounts of water
- rapid loss of water from the body/ drink sufficient amounts of water.

Accept the above plus any other suitable examples. [2]

**Q36.** Award a maximum of **three** marks: **one** mark for the correctly identified deficiency, or problem, **one** mark for the description and **one** mark for correctly identifying how it could be caused.

Examples include:

- obesity/ which is being extremely overweight/ which can be caused by eating too much and exercising too little
- anorexia/ which is being extremely underweight/ and is caused by eating insufficient amounts of food
- scurvy/ which causes swollen bleeding gums/ subcutaneous bleeding/ anaemia/ bruising and pain in the joints/ caused by lack of vitamin C/ contained in fruit and vegetables
- rickets/ which is where the bones fail to form and harden/ caused by a lack of vitamin D
- anaemia/ in the blood/ which is an iron deficiency
- fatigue/ shortage of energy/ insufficient carbohydrate
- coronary heart disease/ arteries blocked/ too many saturated fats.

Accept the above plus any other suitable examples. [3]

**Q37.(a) Dietary considerations the night before**

Candidates are likely to refer to a high carbohydrate loading diet/ such as pasta/ similar to the pasta party for competitors in the London Marathon/ to provide the body with stores of glycogen/ which will help the athlete to keep going/delay the onset of fatigue/ as pasta contains starch/ which is a complex carbohydrate (polysaccharide)/ and as such provides slow release of energy.

5

**(b) Principles of training used**

It is expected that candidates will refer to specificity, progression, overload (frequency, intensity, duration and perhaps even the element of avoiding tedium) and reversibility. These terms must be clearly understood and no credit will be given for simply just stating them without some clear indication that the term is

understood. Eg Specificity/ - as the performer is intending to run a 10k race/ the prime consideration will be to be running long distances/ and the progression/ would be by gradually building up/ the distance run in training sessions. 8 [13]

**Q38.(i)** Award up to **two** marks for **describing** why carbohydrates are a necessary part of a diet.

Examples include:

- they provide the body with energy / for an extended period of time
  - it can be broken down into glycogen / to be stored for release over a period of time
  - performers can carbohydrate load / in preparation for endurance type events
- Accept the above plus any other suitable examples. 2

(ii) Award up to **two** marks for **explaining** why water / fluids are a necessary during activity.

Examples include:

- to avoid dehydration
  - to enable the body to continue to sweat and carry out the cooling process
  - to replace fluids which are being lost from the body
- Accept the above plus any other suitable examples. 2

(iii) Award up to **two** marks for **explaining** what obesity is:

- being extremely / fat
  - clinically / overweight
- Accept the above plus any other suitable examples. 2 [6]

**Q39. (i)** Award **one** mark for each factor.

- Excess amounts of food/junk food
- Lack of exercise
- An unbalanced diet/due to excess fats. Accept unhealthy diet. 2

(ii) Award **one** mark for a correctly identified substance and **one** further mark for why it is important.

- Carbohydrate/energy source
- Fat/energy source, warmth/shock absorber or protection
- Vitamins/help bones/ teeth/ skin grow/regulate chemical reactions and processes in the body
- Minerals/calcium salts strengthen bones/essential for efficient working of the body
- Fibre/keeps digestive system working
- Water/prevents dehydration/helps regulate body temperature. 2 [4]

**Q40. (i)** **One** mark should be awarded for considering what being healthy is. Reference should be made to physical, social or mental well being/the absence of disease/illness.

1

(ii) **One** mark should be awarded for considering what general fitness is. Reference should be made to the ability of your body to cope with the demands of everyday life.

1

(iii) Up to **two** marks for considering how the elements combine.

- It is necessary to be healthy in order to attain basic fitness
- Higher levels of competition put more strain on a performer
- Even minor health problems(colds, hay fever etc.) can result in poor performance



- Regular check ups, inoculations will be essential
- Dietary requirements should be considered.

Accept all of the above plus any other suitable examples 2 [4]

**Q41.** (i) Award a maximum of **two** marks: **one** mark for correctly explaining what dehydration is and **one** further mark for correctly explaining how it can be avoided.

Example

- having an abnormally low water content in the body / drinking sufficient amounts of water
- rapid loss of water from the body / drinking sufficient amounts of water. 2

(ii) Award a maximum of **three** marks: **one** mark for the correctly identified deficiency, or problem, **one** mark for the description and **one** further mark for correctly identifying how it could be caused.

Examples include:

- obesity / which is being extremely overweight / which can be caused by eating too much and exercising too little
- anorexia / which is being extremely underweight/ and is caused by eating insufficient amounts of food
- scurvy / which causes swollen bleeding gums, subcutaneous bleeding, anaemia, bruising and pain in the joints / caused by lack of vitamin C/contained in fruit and vegetables
- rickets / which is where the bones fail to form and harden / caused by a lack of vitamin D
- anaemia/in the blood/which is an iron deficiency.

Accept the above plus any other suitable examples. 3 [5]

**Q42.** Two systems from....

circulatory

respiratory

digestive

accept cardiovascular [2]

**Q43.** Long term benefits:

*To the skeletal muscular system such as:*

- Stronger skeletal muscle
- Increase muscle fibre girth
- Stronger connective tissue
- Increase repeat muscle contractions
- Elasticity in skeletal muscle
- Greater range of movement at joints

*To the respiratory system such as:*

- Increased vital capacity
- Increased VO2 max
- Increased tidal volume

*To the circulatory system such as:*

- Increased stroke volume
- Increased cardiac output
- Stable blood pressure
- Lower resting heart rate
- 'Clearer' vascular network
- Increased production of red blood cells
- Increased capillarisation

- Increased recovery rates

To the digestive system such as:

- Higher metabolic rate
- Efficient disposal of waste products

To mental / social / physical health such as:

- Reduced risk of heart attack
- Reduced cholesterol
- Look good / feel good

Accept (for one mark) increases in:

- Strength / speed / stamina / suppleness
- Improved body shape
- Efficiency of body systems [7]

**Q44.** Effects are determined by the suitability of a particular physique to an activity (1 mark) – the better the match the better the (potential for) performance (1 mark).

Examples such as:

- length of limbs / proportions of body parts  
> the longer the legs, more effective hurdling/ high jump;
- composition of the tissue mass  
> the greater the muscle, the greater strength, more effective gymnastics/ swimming;
- overall height of the body  
> taller, greater reach, more effective basketball/volleyball;
- overall weight of the body  
> heavier, greater stability, more effective wrestler/boxer;  
> lighter, less handicap to be carried more effective jockey/ rowing cox;
- overall size of the body  
> bigger, greater power, more effective rugby forward/ field throw athlete.

Award marks on the basis of ...

- type of physique &/ or description &/ or activity (1 mark);
- explanation of the effect on performance (1 mark).

*eg...* a mesomorph (1 mark) would be more suited to gymnastics because more muscle means more strength (1 mark). [5]

**Q45.** Benefits such as:

- Looking and feeling good;
- Being able to undertake a manual job where there are constant demands on strength and muscular stamina;
- Having the capability to undertake everyday household tasks such as..
- having enough strength to lift things;
- having enough suppleness to reach for things;
- having enough stamina to complete tasks without becoming tired before the end of the day;
- being able to engage fully in family/ social life;
- being able to take part in active leisure pursuits;
- being able to stay alert and fresh rather than sleepy and lethargic.
- Being less prone to illness/ injury;

*accept – better strength; better speed; better stamina; better suppleness (max 1 mark).*

*accept – aspects of circulatory/ respiratory systems without explanation (max 2 marks). [8]*

**Q46. two** from:

- carbohydrate
- fat
- protein. [2]

**Q47.** somatotype is :

... body (size &) shape; **or** body type; **or** body build; **or** physique; **or** body structure; **or** body composition.

*accept:* ..if you are muscly, fat or thin.

NB **not** what you look like/appearance; **not** names of type examples. [1]

**Q48.** any **two** such as:

- (throw) athletics (can be named for 2 marks )
- rugby
- weight lifting
- wrestling
- boxing
- other combat sports.

**not** tug-of-war.

*(Question does not ask for different activities.)* [2]

**Q49.** **three** such as:

- headache
- loss of control/loss of focus
- dizziness/fainting/felling weak
- thirsty/lack of water
- dry throat
- lack of saliva
- blurred vision
- skin goes white/paleness
- nausea/feeling sick
- cramp
- concentrated (dark) urine. [3]