

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD

### SECONDARY EDUCATION CERTIFICATE LEVEL 2022 MAIN SESSION

SUBJECT:	Physical Education
PAPER NUMBER:	IIA
DATE:	6 <sup>th</sup> May 2022
TIME:	4:00 p.m. to 6:05 p.m.

### Instructions

Section A: Skill Acquisition, Movement and Physical Activities Answer **QUESTION 1** and any **THREE** from 2-13.

Section B: 'Health Related Fitness' and 'Body Systems and Performance' Answer ALL questions.

Section C: Sport in Society Answer ALL questions.

Information

Diagrams may be used to clarify your answers where necessary.

### SECTION A: SKILL ACQUISITION, MOVEMENT AND PHYSICAL ACTIVITIES

This section carries 16 marks. Answer QUESTION 1 (Skill Acquisition) and any THREE questions from 2 – 13.

### 1. Skill Acquisition

a) What is the difference between 'continuous feedback' and 'terminal feedback'?

	(2
Mention <b>TWO</b> responsibilities of a coach.	
	(1
	(1

### (Total: 4 marks)

### **Movement and Physical Activities**

### Answer any THREE questions. Answer ALL parts of the chosen questions.

### 2. Athletics

- a) Name **TWO** physical characteristics of a marathon runner.
- i) \_\_\_\_\_ ii) \_\_\_\_\_ (1)
- b) Describe the movement of the arms and legs of a sprinter leaving the blocks.

 (	3	)

### (Total: 4 marks)

\_\_\_\_\_ (1)

### 3. Badminton

a) How many sets do you need to win, to win a badminton game?

b) Abigail and Bernice are playing badminton. Abigail wins the rally.

#### i) Who serves next?

ii) Bernice decides to deliver a low backhand serve. Describe this serve.

(Total:	4	marks)

(Total: 4 marks)

\_\_\_\_\_ (2)

\_\_\_\_\_ (1)

### 4. Basketball

	ii)	_
	iv)	_ (2)
Explain the difference between a personal	foul and a technical foul.	
		(2)
		ii) iv) Explain the difference between a personal foul and a technical foul.

### 5. Educational Dance

a) Describe **TWO** group formations which can be done in a group choreography.

(2)	
(Z)	

b) From the sentence below identify the possible mistake and suggest how to correct it.

Abigail is practicing a double pirouette, but she fell in the middle of the turn.

\_\_\_\_(2) (Total: 4 marks)

Please turn the page.

### 6. Football

a) Explain the term 'direct kick' and give an example when it is given.

b)	Name <b>TWO</b> common faults in shooting.	(2)
a)	Describe the 'hit shot' in hockey.	
8.	Hockey	
		(Total: 4 marks)
		(2)
b)	Explain how a gymnast can improve balancing.	
i)	ii)	(2)
<b>7.</b> a)	<b>Gymnastics</b> List <b>TWO</b> male gymnastics events.	
		(Total: 4 marks)
- /		(1)
c)	Name <b>ONE</b> quality a player with good ball control should have.	(1)
<b>)</b> )	Name <b>ONE</b> responsibility of the assistant referee.	

### 9. Netball

a) Name **FOUR** players that can enter the centre third of the netball court.

i)		ii)	
iii)		iv)	(2)
b)	What is considered foul play in netball?		
			(2)

### (Total: 4 marks)

### **10. Rhythmic Gymnastics**

a) Write **TWO** body skills and **TWO** implement skills which may be performed with a hoop in the table below.

	Body skill	Implement skill
i)		
ii)		
		(2

b) Name **TWO** errors that can be done using the implement mentioned above.

(2)
• •

### (Total: 4 marks)

### **11. Swimming**

- a) What is the action used by swimmers to reverse the direction of swimming when they reach the end of the pool.
- \_\_\_\_\_(1)
- b) Name **ONE** advantage to the above-mentioned action.

\_\_\_\_\_ (1)

c) Describe the leg action in the breaststroke.

\_\_\_\_\_ (2)

(Total: 4 marks)

### 12. Team Handball

a) Name **TWO** rules that are related to the goalkeeper.

		(2
b)	After a goal has been scored, how does the game resume?	
		(1
c)	State <b>ONE</b> advantage of a pyramid defensive formation.	
		(1 (Total: 4 marks)
13	Volleyball	
a)	Name the pass best suited to return the ball when:	
i)	The ball is lower than the waist:	(1)
ii)	The ball is above the head:	(1)
b)	Describe the arm placement of <b>ONE</b> of the above-mentioned passes.	
		(Total: 4 marks)

### SECTION B (I): HEALTH RELATED FITNESS

This section carries 16 marks. Answer ALL questions in this section. Answer ALL parts of each question.

1. Mention **TWO** safety precautions you should follow during physical activities.

a)	 (½)
b)	 (½)

2.	Mention <b>TWO</b> factors which could weaken or cause damage to the	e immune system.
a)		(1/2)
b)		(1/2)
3.	Mention <b>TWO</b> eating disorders which may cause health problems	
a)		(1/2)
b)		(½)
4a)	What is glucose?	(½)
b)	What is glucose converted into when <b>not</b> used immediately?	(½)
c)	Once converted, how does glucose help athletes to perform bet competition?	
5.	A lot of water is lost from the body during intense exercise.	
	Mention <b>TWO</b> factors which affect water loss during exercise.	
a)		(½)
b)		
6.	Define the <b>TWO</b> terms below:	
a)	Health related fitness:	
		(1)
b)	Skill related fitness:	
		(1)
7.	Write down the term that best describes the statements in the ta	ble below.
	Statement	Term
a)	This reduces the chance of injury during physical activity.	

b)	The ability to maintain an activity over a long time.	
c)	Arm wrestling requires this.	
d)	A muscle is no longer able to work properly.	

8a) What is the term used to describe an activity that involves quick bursts of energy and is performed at maximum effort for a short time?

	(1)
b) Give an example of the activity mentioned in part (a) above.	
	(1/2)
9a) John is running a 5000m race. What type of energy is he using?	
	(1/2)
b) Give <b>ONE</b> reason for your answer.	

10. Mention TWO skill related components that are used in football. Give an example when each skill is used. The first one has been done for you.

(	(2)

\_\_\_(1)

	Skill related component	When used
a)	Power	Shooting at goal from 20 meters away
b)		
c)		

### 11. Complete the table below with an example for **each** factor.

	An Example	Factor
a)		Physiological
b)		Psychological

(1)

(Total: 16 marks)

### SECTION B (II): BODY SYSTEMS AND PERFORMANCE

## This section carries 36 marks. Answer ALL questions in this section. Answer ALL parts of each question.

1. This question is about the skeletal system and principles of training. Read through the passage below and answer the questions that follow.

Paul George, the Indiana Pacers basketball star, suffered a bad injury during the summer of 2014 while playing for the U.S. national basketball team. During an action in the game, he landed badly and suffered a compound tibia-fibula fracture. Paul George's injury looked like it would be a career-ending one, but Paul George followed a good rehab programme and returned to play six games toward the end of the 2014-15 season.

(Adapted from: https://www.mensjournal.com/)

Which <b>TWO</b> bones are mentioned in the passage above?	
	(1/2)
Would you classify both as being short or long bones?	
	(½)
Mention the <b>TWO</b> other types of bone classifications.	
	(1)
What is the difference between a 'fracture' and a 'strain'?	
	(1)
List the <b>THREE</b> different types of fractures, which are <b>not</b> in the passage.	
	(1½)
What treatment is normally applied to heal a fracture?	
	(1)
Which principle of training was negatively affected due to the injury suffered by Paul	l George?
	(1/2)
Which are the <b>THREE</b> other principles of training?	
	(1½)
	Would you classify both as being short or long bones?         Mention the <b>TWO</b> other types of bone classifications.         What is the difference between a 'fracture' and a 'strain'?         List the <b>THREE</b> different types of fractures, which are <b>not</b> in the passage.         What treatment is normally applied to heal a fracture?         Which principle of training was negatively affected due to the injury suffered by Pau         Which are the <b>THREE</b> other principles of training?

Please turn the page.

2. This question is about the muscular system. Read through the passage below and answer the questions that follow.

The risk of injury during heavy lifting at work or during leisure time is a common problem. In order to balance between total training load and recovery, recommendations about training frequency, intensity and volume for resistance training practitioners have been published. Other risk factors for injuries are heavy loads in extreme joint and muscle positions. For example, an increasing risk of shoulder injury is when the shoulder joint is abducted and externally rotated which is a position weightlifters achieve during a snatch.

Regarding the deadlift exercise, there is a high load on the spine during the lifts. It has been shown that the compression forces average >17000 N in elite powerlifters, and the distribution of forces have a large variation depending on the lifting technique. The competitive level might be associated with injury rate in weightlifters.

(Adapted from: https://bjsm.bmj.com/)

a)	List <b>THREE</b> muscles found in the upper body that are heavily used in weightlifting.	
b)	Mention <b>ONE</b> muscle found in the lower body and describe its function.	(11⁄2)
c)	Mention <b>TWO</b> effects of muscle fatigue.	(1½)
d)	Name the term used for a muscle locked in a spasm.	(1)
e)	Explain the difference between flexors and extensors.	(72)
		(1)
f)	From the passage above, describe what 'abductive' means.	
		(1)
g)	Which part of a training session focuses on returning the heart muscle to its original	state?

\_\_\_\_\_ (1/2)

3. This question is about the circulatory system. Read through the passage below and answer the questions that follow.

During Blood Flow Restriction training the tight band or strap on the involved limb restricts the blood flow in (which carries oxygen) and out (which carries lactic acid and other waste from muscle activity) below the level of the compression. This temporarily creates a low oxygen environment for the muscle. It's this lack of oxygen that forces the muscles to work harder, increasing protein synthesis in the muscle cells, which is important to both muscle repair and growth.

	(Adapted from: https://www.everydayhealth.com/)
a)	List <b>THREE</b> main components of the circulatory system.
	(1½)
b)	Explain the difference between oxygenated and deoxygenated blood.
	(1)
c)	What happens to the blood once it enters the heart until it reaches the lungs?
	(1)
d)	Which process takes place at the alveoli?
	(1/2)
e)	Through which vessel does the blood leave the heart to be distributed to the rest of the body?
	(1/2)
f)	Mention <b>TWO</b> effects of exercise on the circulatory system.
	_(1)
g)	How do high temperatures affect the circulatory system?
	(1)

### Please turn the page.

4. This question is about the respiratory system. Read through the passage below and answer the questions that follow.

Oxygen powers performance. This is true for all level of athletes. Each of us can exercise to increase the volume of our lungs. The more we expand our lung (A), the faster oxygen moves through our system. But elite athletes, unsurprisingly, rely on their breath for endurance and energy even more so. It is the engine that determines the level of performance their muscles will deliver.

Much like one needs to know the maximum possible strength one can expect from a battery, coaches and athletes too must know their potential. Training and genetics work in sync in reaching this maximum potential. But just like there are limits to what an AA battery can power, there are limitations to one's fitness potential.

The maximum volume of oxygen one can consume is referred to as <u>(B)</u>. The more oxygen an athlete can inhale, the better the performance potential. While there are other factors that determine  $VO_2$  Max or the training thereof, such as genetics, age and fitness baseline, training can generally increase this maximum to a certain level.

The more <u>(C)</u> athletes can use during performance, the more energy they can put out. However, this is only one half of the equation. The second part of this is the efficiency with which the athlete uses this oxygen. Let's equate  $VO_2$  to a tool belt. While two people might have the same tools in their tool belt (same  $VO_2$  max), it is their skills and ability to use these that will eventually determine the result. It's how one uses the tools one is given. The same can be said for athletes.

(Adapted from: https://www.lung.ca/)

a) Fill in the **THREE** spaces provided, **each** with a single word.

A =	. (1/2)
B =	. (1/2)
C =	. (1/2)

b) Which protective layer prevents the lungs from producing friction?

\_\_\_\_\_ (1/2)

c) How does smoking affect the respiratory system?

\_\_\_(1)

\_\_\_(1)

d) Mention **TWO** other factors that may affect the respiratory system.

### \_\_\_\_\_ (1)

e) List **TWO** effects of exercise on the respiratory system.

5. This question is about environmental factors.

a) Pollution is an environmental factor. How does pollution affect athletic performance?

	(2)
b)	Explain how high altitude affects the athletes.
	(1½)
c)	Mention <b>TWO</b> advantages of training at high altitude.
	(2)
6.	This question is about fitness testing. Read through the passage below and answer the questions that follow.
spe Eui ser	eed, endurance and strength. The standardized test battery was devised by the Council of rope, for children of school age and has been used in many European schools since 1988. The ies of tests are designed so that they can be performed within 35 to 40 minutes, using very
spe Eui ser	eed, endurance and strength. The standardized test battery was devised by the Council of rope, for children of school age and has been used in many European schools since 1988. The ies of tests are designed so that they can be performed within 35 to 40 minutes, using very uple equipment. A similar Eurofit for adults was published in 1995.
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spe Eur ser sin a)	eed, endurance and strength. The standardized test battery was devised by the Council of rope, for children of school age and has been used in many European schools since 1988. The ies of tests are designed so that they can be performed within 35 to 40 minutes, using very pple equipment. A similar Eurofit for adults was published in 1995. (Adapted from: https://www.topendsports.com/)
spe Eur ser sin a)	eed, endurance and strength. The standardized test battery was devised by the Council of rope, for children of school age and has been used in many European schools since 1988. The ies of tests are designed so that they can be performed within 35 to 40 minutes, using very ople equipment. A similar Eurofit for adults was published in 1995. (Adapted from: https://www.topendsports.com/) Mention <b>THREE</b> other factors of fitness than those mentioned in the passage. (1½) Which test is used to measure flexibility?
spe Eur ser sim a) b)	(Adapted from: https://www.topendsports.com/) Mention <b>THREE</b> other factors of fitness than those mentioned in the passage.
spe Eur ser sim a) b)	eed, endurance and strength. The standardized test battery was devised by the Council of         rope, for children of school age and has been used in many European schools since 1988. The         ies of tests are designed so that they can be performed within 35 to 40 minutes, using very         pple equipment. A similar Eurofit for adults was published in 1995.         (Adapted from: https://www.topendsports.com/)         Mention THREE other factors of fitness than those mentioned in the passage.         (1½)         Which test is used to measure flexibility?
spe Eui ser sin	eed, endurance and strength. The standardized test battery was devised by the Council of rope, for children of school age and has been used in many European schools since 1988. The ies of tests are designed so that they can be performed within 35 to 40 minutes, using very type equipment. A similar Eurofit for adults was published in 1995.         (Adapted from: https://www.topendsports.com/)         Mention THREE other factors of fitness than those mentioned in the passage.         (1½)         Which test is used to measure flexibility?         (½)         Which factor of fitness does the plate tapping test measure?

e) Which factor of fitness does the standing broad jump measure?

\_ (1/2)

f) Why is it important **not** to interpret a result in isolation but rather to compare it against the suggested norms?

\_\_\_\_\_(1)

### (Total: 36 marks)

### SECTION C: SPORT IN SOCIETY

## This section carries 12 marks. Answer ALL questions in this section. Answer ALL parts of each question.

1.	Mention <b>TWO</b> ways how a sports club may raise money.	
a)		(1/2)
b)		(1/2)
2.	Mention <b>TWO</b> factors you would take into consideration when setting up a new spor	ts club.
a)		(1/2)
b)		(1/2)
3a)	What type of competition would you use for a one day school netball tournament wit teams?	th eight
		(½)
b)	Give a reason for your answer.	
4a)	Which type of competition is known as a 'social competition'?	(1/2)
b)	Give <b>ONE</b> advantage of such a competition.	
		(1/2)
5a)	Facilities are provided by voluntary, private or public sectors. Mention:	
i)	a private provider:	(1/2)
ii)	a public provider:	(1/2)

b) Mention **ONE** main difference between the two.

5a)	Mention <b>TWO</b> ways how the International Olympic Committee (IOC) promotes fairness
)	
)	
))	Why were the 2020 Olympic Games postponed to 2021?
/a)	Mention a reason why a sponsorship in sports may be unsuitable.
a)	mention a reason why a sponsorship in sports may be unsuitable.
<b>)</b> )	Mention an example of an unsuitable sponsorship in sports.
8.	Watching a live game on the media is exciting thanks to close-up shots.
	Mention <b>TWO</b> other aspects which make watching a game on the media exciting.
a)	
<b>)</b> )	
Э.	What is meant by the term recreation?
10.	Mention <b>TWO</b> ways that would increase participation in sports by the elderly.
a)	
<b>)</b> )	
11.	Mention <b>ONE</b> reason why a country may decide to boycott the Olympic Games.

(Total: 12 marks)

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MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD

### SECONDARY EDUCATION CERTIFICATE LEVEL 2022 MAIN SESSION

SUBJECT:	Physical Education
PAPER NUMBER:	IIB
DATE:	6 <sup>th</sup> May 2022
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### Instructions

Section A: Skill Acquisition, Movement and Physical Activities Answer **QUESTION 1** and any **THREE** from 2-13.

Section B: 'Health Related Fitness' and 'Body Systems and Performance' Answer ALL questions.

Section C: Sport in Society Answer ALL questions.

### Information

Diagrams may be used to clarify your answers where necessary.

### SECTION A: SKILL ACQUISITION, MOVEMENT AND PHYSICAL ACTIVITIES

This section carries 16 marks. Answer QUESTION 1 (Skill Acquisition) and any THREE questions from 2 – 13.

### 1. Skill Acquisition

- i) \_\_\_\_\_\_ ii) \_\_\_\_\_ (2)
  b) Name **TWO** persons who can provide feedback.
- i) \_\_\_\_\_ ii) \_\_\_\_\_ (2)

(Total: 4 marks)

### **Movement and Physical Activities**

a) Name **TWO** types of feedback.

### Answer any THREE questions. Answer ALL parts of the chosen questions.

### 2. Athletics

- a) Name **TWO** jumping events in athletics.
- i) \_\_\_\_\_ ii) \_\_\_\_\_ (1)
- b) What is the name of the implement shown in the picture below?



<sup>(</sup>Source: https://stock.adobe.com/mt/)

c) Name **TWO** errors, that may be done in the throwing event using the implement shown in the picture above.

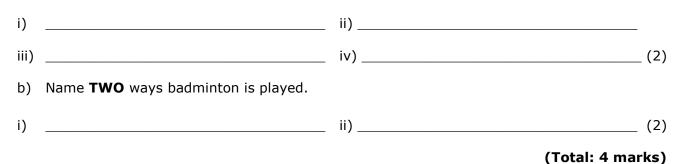
\_\_\_\_\_ (2)

(1)

(Total: 4 marks)

### 3. Badminton

a) Name **FOUR** types of shots that can be done in badminton.



### 4. Basketball

Name the skills in basketball that are described in the table below.

	Description of skill	Name of skill
a)	A player shoots but the ball bounces on the ring and the opponent catches it.	
b)	A player uses this to avoid players whilst moving on court	
c)	A player performs this action successfully and gains points for his team.	
d)	A player performs this action to give the ball to his team mates	

(Total: 4 marks)

### 5. Educational Dance

Name **TWO** common errors when doing:

a) A front kick

i)		ii)	(2)
b)	A pirouette		
i)		ii)	(2)
			(Total: 4 marks)

Please turn the page.

### 6. Football

a)	Name <b>FOUR</b> player positions in football.	
i)	ii)	
iii)	iv) _	(2)
b)	State whether the statements below are True or	False.
i)	A foul that takes place in the penalty box is pun	ished by a penalty kick.
		(1)
ii)	There are three official referees in the game of	ootball.
		(1)
		(Total: 4 marks)
7.	Gymnastics	
a)	List <b>TWO</b> gymnastic skills that can be sustained	in a balance.
i)	ii)	
b)	List <b>TWO</b> common errors of a headstand.	
		(2)
		(Total: 4 marks)
8.	Hockey	
a)	What leads to a successful pass in hockey?	
b)	Name <b>ONE</b> passing technique in hockey.	
		(1)
c)	Describe the passing technique you mentioned i	n 8(b) above.
		(Total: 4 marks)

### 9. Netball

a) Define the term fake pass in netball.

		(1)
b)	Give <b>TWO</b> examples of fake passing in a netball game.	
i)		
ii)		(2)
c)	When is a 'throw in' taken, in a netball game?	
		(1)
		(Total: 4 marks)
10	Rhythmic Gymnastics	
a)	Write <b>TWO</b> implement skills which may be performed with a ball.	
i) _	ii)	(2)
b)	Name <b>TWO</b> instances when marks are deducted when using an implement	ent.
		(2)
		(Total: 4 marks)
11.	Swimming	(Total: 4 marks)
	<b>Swimming</b> Why is a crouched position on the blocks important?	(Total: 4 marks)
a)	Why is a crouched position on the blocks important?	
a) b)	Why is a crouched position on the blocks important?	(1)
a)	Why is a crouched position on the blocks important? Name <b>THREE</b> swimming events which start off on the blocks.	(1)

Please turn the page.

### 12. Team Handball

a) A player holds the ball for 5 seconds. What action is taken by the referee?

		(1)
b)	The ball goes completely out from the side-line. How does the game restart?	
		(1)
c)	Give <b>TWO</b> characteristics of a good goalkeeper.	
		(2)
	(Total: 4	marks)
13	. Volleyball	
a)	How many touches is a team allowed before throwing the ball over the net?	
		(1)
b)	Name <b>ONE</b> advantage of 'blocking'.	
		(1)
c)	Name <b>TWO</b> errors when delivering a serve.	
		(2)
	(Total: 4	marks)

### SECTION B (I): HEALTH RELATED FITNESS

This section carries 16 marks. Answer ALL questions in this section. Answer ALL parts of each question.

- 1. Underline **TWO** harmful effects of smoking from the effects listed below:
- a) heart disease b) breathing problems c) damage to the liver d) muscle fatigue (1)

2. Mention **TWO** short term effects of drinking too much alcohol which can affect an athlete.

a)	 (1⁄2)
b)	 (1/2)

3a)	What is the best way to prevent the spread of disease?
	(1/2)
b)	Why should sports clothes be washed regularly?
	(1/2)
4a)	Simple carbohydrates are turned into glucose and glycogen and then stored by the body. What happens to the carbohydrates which our body does <b>not</b> need?
	(1)
b)	Explain why the following nutrients are important in physical activity.
i)	Water:
ii)	Fats:
iii)	Fibre:
	Proteins:(2)
5.	Athletes competing in different sport need different diets. State what type of diet the following athletes need before the event:
a)	sprinter:(1)
b)	swimmers: (1)
6.	State <b>ONE</b> reason why the amount of exercise required might vary between different people.
	(1)
7.	Mention <b>TWO</b> factors which might limit the level of desired fitness.
a)	(1/2)
b)	(1/2)

8. Fill in the table below stating the different types of strength.

	Definition	Type of Strength
a)	Muscular strength needed to support own body weight.	
b)	Work muscles hard for a period of time.	
c)	Strength used in one short, sharp movement.	
d)	A great amount of force applied to an immovable object.	
		(2)

9. Mention **TWO** advantages flexibility gives to athletes.

a)	(1/2)
b)	(1/2)

10a) How can athletes improve their strength? \_\_\_\_\_ (1/2) b) Mention **ONE** sport where strength is essential. \_\_\_\_\_ (1/2) 11. Underline the correct answer. a) Power is the ability to use strength: ii) at different intervals iii) with speed i) slowly (1/2) b) All sprinters need very good: i) agility ii) balance iii) reaction time (1/2) 12. State whether the following factors are physiological or psychological: \_\_\_\_\_ (1/2) a) boredom b) anxiety \_\_\_\_\_ (1/2) (Total: 16 marks)

### SECTION B (II): BODY SYSTEMS AND PERFORMANCE

## This section carries 36 marks. Answer ALL questions in this section. Answer ALL parts of each question.

1. This question is about the skeletal system and principles of training. Read through the passage below and answer the questions that follow.

Paul George, the Indiana Pacers basketball star, suffered a very bad injury whilst playing for the U.S. national basketball team. Paul George injured his leg by suffering a compound tibia-fibula fracture.

(Adapted from: https://www.mensjournal.com/)

a) Which **TWO** bones are mentioned in the passage above?

\_\_\_\_\_ (1/2)

b) Both bones are short bones. State whether this statement is True or False.

\_\_\_\_\_ (1/2)

c) Apart from flat and short bones, mention the **TWO** other types of bone classifications.

\_\_\_\_\_(1)

#### d) What is a fracture?

		(1)
e)	List <b>TWO</b> different types of fractures.	
		(1)
f)	What is the first thing one should do when there is a fracture?	
		(1)
g)	The principle of reversibility is affected in this incident. Define 'reversibility'.	
		(1/2)
h)	Apart from reversibility mention <b>TWO</b> other principles of training.	
		(1)
2.	This question is about the muscular system. Read through the passage below and ans questions that follow.	
The	e risk of injury during heavy lifting at work or during leisure time is a well-rec	oanised

The risk of injury during heavy lifting at work or during leisure time is a well-recognised problem. In order to balance between total training load and recovery, recommendations about training frequency, intensity and volume for resistance training have been published. Other factors, suggested as risk factors for injuries are heavy loads in extreme joint and muscle positions. For example, an increasing risk of shoulder injury is when the shoulder joint is abducted and externally rotated which is a position weightlifters achieve during a snatch.

(Adapted from: https://bjsm.bmj.com/)

a) List **TWO** muscles found in the upper body.

		(1)
b)	List <b>TWO</b> muscles found in the lower body.	
		(1)
c)	What is muscle fatigue?	
		(1)

### This question continues on next page.

- d) Muscle cramp occurs when a muscle is locked in a spasm. State whether this statement is True or False.
- e) Flexion occurs when the angle between two joints decreases through muscle movement. What is extension?
- f) At the end of a training session what should athletes do to help the heart muscle return to its original state?
- g) Give **ONE** example of an involuntary muscle.
- 3. This question is about the circulatory system. Read through the passage below and answer the questions that follow.

During Blood Flow Restriction training the tight band or strap on the involved limb restricts the blood flow in (which carries oxygen) and out (which carries lactic acid and other waste from muscle activity) below the level of the compression. This creates a low oxygen environment for the muscle. This lack of oxygen forces the muscles to work harder, increasing protein synthesis in the muscle cells, which is important to both muscle repair and growth.

(Adapted from: https://www.everydayhealth.com/)

\_\_\_\_ (½)

\_\_\_(2)

\_\_\_\_\_(1/2)

\_\_\_\_(1)

\_\_\_(1)

(1)

\_\_\_\_\_ (1/2)

- a) The blood forms part of the circulatory system. List **TWO** other components of the circulatory system.
- b) Explain what is 'oxygenated' blood.
- c) Once blood leaves the lungs it is rich in oxygen. State whether this statement is True or False.
- d) Underline the appropriate location where gaseous exchange takes place.
  - i) Nasal cavity, ii) alveoli, iii) abdominals, iv) trachea (1/2)

e) Through which vessel does the blood leave the heart to be distributed to the rest of the body?
(1/2)
f) Mention **TWO** effects of exercise on the circulatory system.
(1)
g) How does the human body react to training in high temperatures?
(1)
4. This question is about the respiratory system. Read through the passage below and answer the questions that follow.
Oxygen powers performance. This is true for all level of athletes. Each of us can exercise to

Oxygen powers performance. This is true for all level of athletes. Each of us can exercise to increase the volume of our lungs. The more we expand our lung capacity, the faster oxygen moves through our system. Elite athletes rely on their breath for endurance and energy even more so. It is the engine that determines the level of performance their muscles will deliver.

Just like one needs to know the maximum possible strength one can expect from a battery, coaches and athletes too must know their potential. Training and genetics work in sync in reaching this maximum potential. But just like there are limits to what an AA battery can power, there are limitations to one's fitness potential.

(Adapted from: https://www.lung.ca/)

a) The pleura prevents the lungs from producing friction. State whether this statement is True or False.

b) What is VO<sub>2</sub> max?

c) Why is VO<sub>2</sub> measured?

\_\_\_\_(1)

\_\_\_\_\_ (1/2)

\_\_\_\_(2)

d) Mention **THREE** factors that may affect the respiratory system.

e) List **THREE** effects of exercise on the respiratory system.

\_\_\_\_\_ (1½)

\_\_\_\_(2)

- 5. This question is about environmental factors.
- a) Apart from high altitude mention **TWO** other types of environmental factors which affect athlete performance.
- b) What effect does high altitude have on athletes?

\_\_\_\_\_(1½)

- c) Circuit training is one of the seven methods of training. Mention another **THREE** methods of training.
  - \_\_\_\_\_(3)
- 6. This question is about fitness testing. Read through the passage below and answer the questions that follow.

The Eurofit Physical Fitness Test Battery is a set of nine physical fitness tests covering flexibility, speed, endurance, and strength. The standardized test battery was devised by the Council of Europe, for children of school age and has been used in many European schools since 1988. The series of tests are designed so that they can be performed within 35 to 40 minutes, using very simple equipment. A similar Eurofit for adults was published in 1995.

(Adapted from: https://www.topendsports.com/)

a) Mention **THREE** other factors of fitness than those mentioned in the passage.

		(1½)
b)	Mention <b>ONE</b> test used to measure balance.	
		(1)
c)	Which factor of fitness does the standing broad jump measure?	
		(1/2)

d)	Muscular endurance may be measured by performing several sit ups. State whethe statement is True or False.	r this
		_ (½)
e)	Which factor of fitness does the bleep test measure?	
		_ (½)
	(Total: 36 m	arks)

### SECTION C: SPORT IN SOCIETY

## This section carries 12 marks. Answer ALL questions in this section. Answer ALL parts of each question.

1.	Members on a committee have specific duties. Who is generally responsible for:	
a)	collecting subscription fees:	(1/2)
b)	keeping of minutes during a meeting:	(½)
2.	Give the full name of the following associations:	
a)	MAAA:	(1/2)
b)	MHA:	(1/2)
3.	Some competitions are played using both the league and the knockout systems. What is:	
a)	a league system:	(1/2)
b)	a knockout system:	(1⁄2)
4.	Give <b>TWO</b> advantages of using outdoor gyms.	
a)		(1/2)
b)		(1/2)
5a)	) When did the Modern Olympic Games start?	
		(1/2)
b)	Who was the founder of the Modern Olympic Games?	
		(1/2)

### This question continues on next page.

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c)	The last Olympic Games were held in 2021. In which year will the next Games be held?
	(1/2)
6.	Mention <b>ONE</b> type of sponsorship that is <b>not</b> accepted in sports.
	(1/2)
7.	Most radio stations cover sports news. Mention <b>ONE</b> advantage and <b>ONE</b> disadvantage of sports transmission on radio for viewers.
a)	Advantage:(1)
b)	Disadvantage:(1)
8.	Mention <b>TWO</b> suitable leisure sports activities for people who have never exercised before.
a)	b) (1)
9.	Give <b>ONE</b> example of racism in sport.
	(1)
10.	Most countries take part in International sports events. Give <b>TWO</b> reasons for this.
a)	(1)
b)	(1)
	(Total: 12 marks)

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