

C	Centr	e Nu	mber
Can	didat	e Nu	mber

General Certificate of Secondary Education 2016

Physical Education

Paper 1



[G9741] FRIDAY 20 MAY, AFTERNOON

TIME

1 hour 30 minutes, plus your additional time allowance.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

You must answer the questions in the spaces provided.

Do not write outside the boxed area on each page or on blank pages.

Complete in blue or black ink only.

Answer **all** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is **100**.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

Quality of written communication will be assessed in questions 18, 20 and 22(b).

99
ng Learning
Rewardin
20
ng Learning
A
Rewardin
ÐÐ
ng Learning
A:
Rewardin
$\partial \mathcal{F}$
ng Learning
O:
Rewardin
ÐÐ
ng Learning
O:
Rewardin
ÐÐ
ng Learning
<u> </u>
Rewardin
ÐÐ
ng Learning
Œ
Rewardin
Ð
ng Learning
Œ
Rewardin
Æ)
ng Learning
Œ
Rewardin
Æ
ng Learning
Œ
Rewardin
Æ
vg Learning
Œ
Rewardin
Æ
Rewardin
20
ng Learning
Rewardin
$\partial \mathcal{D}$
ng Learning
Rewardin
$\partial \mathcal{A}$
ng Learning
Rewardin
Ð
ng Learning
O:
Rewardin
ÐÐ
ng Learning
Œ
Rewardin
ÐÐ
ng Learning
Œ
Rewardin
Æ
ng Learning
Œ
Rewardin
E
ng Learning
Q
rewardin
XI Learning
ng Lodming
Bayesand
wwardin
yg Lesmino
Rewardin
22
ng Learning

	1	In its definition of health, the World Health Organisation (WHO) includes three different areas of health. Social health is one area. Name the other two areas.	
		1	_ [1]
		2	[1]
			- [.]
	2	What word is used to describe the ability of a player to economically coordinate a control a shot in badminton?	and
			[1]
	3	Describe a health and safety risk associated with playing a sport of your choice a explain a step that can be taken to reduce this risk.	and
			_ [2]
98	54.04	ML	

	affect their participation in physical activity or sport.	
	1	
		_ [1]
	2	
		_ [1]
	3	
		_ [1]
;	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports.	
5	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports.	
5	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports.	_ [1]
5	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports. 1 2	_ [1]
5	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports. 1 2	_ [1]
;	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports. 1 2	_ [1]
5	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports. 1	_ [1]
5	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports. 1	_ [1]
5	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports. 1	_ [1] _ [1]
5	Give three examples to show how a person's occupation/job may affect their participation in competitive team sports. 1	_ [1]

(a)	Study Fig. 1 below and answer the question that follows.
	Energy Output 2000 calories
	Energy Intake 3000 calories
	Fig. 1
	Explain what Fig. 1 shows and what the outcome will be if it is followed.
	[2]
04 ML	
.04 ML	



(a)	Explain what anaerobic fitness is.	
	Anaerobic fitness is about being able to	
		[1]
(b)	What determines a person's anaerobic energy production?	
	Anaerobic energy production is determined by the ability of	
		[3]
ML		
HL.		

	0		What determines a person's museular and transa?	
	Ó	(a)	We avalage and we are in a later with a data with the set if the set	
			Muscular endurance is determined by the ability of	
				[2]
		(h)		
		(D)	what determines a person's flexibility ?	
			Flexibility is determined by the ability of	
				[2]
				[Turn over
98	54.04	ML		• -

99
ng Learning
O:
Rewardin
22)
ng Learning
Œ
Rewardin
Rewardin
99
ng Learning
A:
Rewardin
ÐÐ
ng Learning
<u>O</u>
Rewardin
Rewardin
$\partial \mathcal{D}$
ng Learning
O:
Rewardin
22)
ng Learning
Œ
Rewardin
Æ
ng Learning
Rewardin
200
yg Learning
Rewardin
2π
vg Learning
O:
Rewardin
ÐÐ
vg Learning
Œ
Rewardin
ya Leemina
Rewardin
$\partial \mathcal{A}$
vg Learning
A:
Rewardin
22)
ng Learning
Œ
Rewardin
Æ
vg Learning
Rewardin
20
ng Learning
A:
Rewardin
22)
ng Learning
<u> </u>
Rewardin
Æ
vg Learning
Repartio
200
vg Learning
Rewardin
\mathcal{T}
ng Learning
O:
Rewardin
ÐÐ
ng Learning
Ø
Rewardin
yg Lesmina

9	(a)	 Explain in detail what is involved in doing an aerobic workout using continu steady pace training (CSP). 				
			[2]			
	(b)	Running is a type of exercise. Name two other types of exercise that can use continuous steady pace training as a method of training.				
		1	[1]			
		2	[1]			
10	Exp	lain the difference between an isotonic and an isometric exercise.				
			[2]			
9854.04 M	IL					

11	In the 'FITT' principle the 'I' stands for intensity. Explain what " intensity " is and give an appropriate example.
	[2]
12	For a weight training exercise, give two different ways by which you can overload.
	1 [1]
	2 [1]
	[2]
9854 04	[Turn ov
3054.04	

29
ng Learning
Rewardin
29
ng Learning
Ø:
Rewardin
ÐÐ
ng Learning
<u>O</u>
Rewardin
Æ
vg Learning
Rewardin
200
yg Learning
Rewardin
$\partial \mathcal{A}$
ng Learning
O:
Rewardin
23)
ng Learning
Œ
Rewardin
Æ
ng Learning
Reward
20
yg Learning
Rewardin
$\partial \mathcal{A}$
ng Learning
O:
Rewardin
ÐÐ
ng Learning
Œ
Rewardin
Rewardin
$\partial \mathcal{A}$
ng Learning
A:
Rewardin
22)
ng Learning
<u> </u>
Rewardin
Ľ
ng Learning
rtewardin
yg Learning
Rewardin
27)
ng Learning
O:
Rewardin
ÐÐ
vg Learning
Œ
Rewardin
XI Learning
Rewardin
22
ng Learning
A
Rewardin
ÐÐ
ng Learning
Ô.
Rewardin
ÐÐ
vg Learning
Œ
Rewardin
ya Leemina

14	Explain fully how the principle of reversibility affects a person who has become physically fit by doing fitness training and who then stops doing the fitness training			
		_		
		_		
		[
15	When a person starts doing strenuous exercise, what is the immediate response of the respiratory system?).		
		_		
		[
16	When a person starts doing strenuous exercise, what is the immediate response of the heart ?)		
		-		
		[

17	When a person starts strenuous exercise, what is the immediate response of the digestive system?	
		[2]
18	"Endurance athletes should not smoke tobacco." Present and explain three good arguments that support this statement.	
	1	
		[2]
	2	
		[2]
	3	
	Гтие	
9854.04 N	nL [IGH]	

Œ
Rewardin
Æ
ng Learning
- CE
Rewardin
Æ
ng Learning
- OS
Rewardin
22)
ng Learning
- O
Rewardin
ÐÐ
ng Learning
A
Rewardin
ÐE
ng Learning
Rewardin
20
Rewardin
nowardin.
Z
-a Lourning
Œ
Rewardin
Æ
ng Learning
Œ
Rewardin
ÐÐ
ng Learning
- O
Rewardin
ÐÐ
ng Learning
A
Rewardin
ÐE
ng Learning
A:
Rewarding
Rewarding DD
Rewarding 200
Rewarding by Learning
Rewardin, Dog yg Learning Rewardin, Rewardin,
Rewardin Rewardin 2000 xg Learning Rewardin Rewardin
Rewardin Population Pag Learning Rewardin Population Po
Rewardin, DO 200 200 200 Rewardin, DO 200 200
Rewarden Pag Learning OC Rewarden Rewarden Pag Ig Learning DC Ig Learning
Rowardin DDD 12 Lenning DDD 12 Lenning DDD 12 Lenning DDD 12 Lenning DDD 12 Lenning
Reveration POD vg Learning POD vg Learning POD vg Learning POD Reveration POD vg Learning POD vg Learning P
Rewarden Provention 2000 29 Learning 2000 29 Learning 2000 2000 2000 2000 2000 2000 2000 20
Rewarden Personale g Learning December g Learning g Learning g Learning
Rewarden Powarden Powarden Powarden Powarden Powarden Powarden Powarden Powarden Powarden Powarden
December Recorden 200 19 Learning 200 Recorden Rec
Construction Research Source Construction Construction Source Construction Constr
Construction Research Solution So
Construction Co
Construction Co
Construction Co
Caracter Parater Pa
Construction Co
Constant Researcher Policies Researcher Re
Construction Co
Constraints Const
Construction Co
Construction Co
Constant Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Participation Researcher Resear
Caracter Parater Pa
Caracter Paract
Constant Researcher Page Learning Page Learning Page Learning Page Learning Page Learning Page Page Page Page Page Page Page Page
Caracter Parater Pa
Constant Researcher Page Learning Page Learning Page Learning Page Learning Page Learning Page Learning Page Page Page Page Page Page Page Page
Image: Constraint of the second se
Caracter Parater Pa
Caracter Parater Pa
Caracter Parater Pa
Caracter Parater Pa

Ð

19	(a)	Explain the relative importance of muscular power for performing the high jump .			
		[2]			
	(b)	Explain the relative importance of aerobic fitness for performing the high jump .			
		[2]			
9854.04	ML	-			

20 To be able to fairly compare fitness test results over a period of time, fitness testing must be valid and reliable. Explain four principles that should be applied to fitness testing in order to achieve this. 1. [2] 2. _____ [2] 3. _____ [2] 4. ____ [2] [Turn over 9854.04 ML

20
ng Learning
Rewarding
Ð
ng Learning
A:
Rewarding
Ð
ng Learning
O:
Rewardin
22)
ng Learning
<u> </u>
Rewardin
ÐÐ
ng Learning
<u>O</u>
Rewardin
Æ
ng Learning
Ø
xa Leamina
Rewardin
$\partial \mathcal{A}$
vg Learning
Rewardin
$\partial \mathcal{A}$
ng Learning
A:
Rewardin
ÐÐ
ng Learning
O:
Rewardin
22)
ng Learning
Œ
Rewardin
Æ
ng Learning
Ø
Rewardin
Rewardia
20
vg Learning
Rewardin
$\partial \mathcal{A}$
ng Learning
A:
Rewardin
ÐÐ
ng Learning
<u> </u>
Rewardin
Æ
vg Learning
Œ
Rewardin
Rewardin
20
ng Learning
Rewardin
\mathcal{T}
ng Learning
O:
Rewardin
ÐÐ
ng Learning
Œ
Rewardin
Æ
ng Learning
Ø
Rewardin
Z
ng Loanning

21	(a)	Explain in detail how you should perform a passive static flexibility ex stretch the hamstring muscles (back of upper leg).	xercise to
			[2]
			[2]
	(b)	Use a stick diagram to show your exercise being performed.	
			[2]
9854.04	ML		

(c) Explain in detail how you should perform an active static flexibility exercise to stretch the quadriceps muscles (front of upper leg).

_____ [2]

(d) Use a stick diagram to show your exercise being performed.

[2]

[Turn over

22 (a) Swimming or running may be included in an aerobic exercise programme. Explain two advantages of having swimming as the aerobic activity instead of running. 1.
Explain two advantages of having swimming as the aerobic activity instead of running. 1
1.
[2] 2[2] [2]
[2] 2[2] [2]
[2] 2
[2] 2
[2] 2
2
[2]
[2]
[2]
[2]
[2]
9854.04 ML

16

(b) Walking and swimming may be included in an aerobic exercise programme.

Explain **two advantages** of having **walking** as the **aerobic** activity instead of **swimming**.

1._____ [2] 2. _____ [2] [Turn over

23 (a) Use the tables below to show how **interval training** should be used to develop **anaerobic** fitness and **aerobic** fitness.

Give specific information for the intensities, times and numbers of repetitions to clearly show the differences in the use of interval training to develop anaerobic fitness as compared to aerobic fitness.

Interval training workout to develop anaerobic fitness	Interval training workout to develop aerobic fitness
Intensity (% MHR):	Intensity (% MHR):
Time (seconds):	Time (seconds):
Number of repetitions:	Number of repetitions:

[6]

9854.04

(i)	Intensities
	[3
(ii)	Times
. ,	
	۲، ۲
	[C
(iii)	Number of repetitions
	[3

- DD vg Learning <u>C</u> DD va Lesmina <u>O</u> Ð O. Œ Ð O: 93) O. ÐÐ O: ÐÐ <u>C</u> ÐÐ O: 93 O: Ð Œ Ð <u>O</u> Ø ÐÐ Ø 93) O: ÐÐ O: 22) Ø ÐÐ O: Ð Œ Ð Ð Ø Ð Ø 22) <u>O</u>
- **24 (a)** Study the information below that is taken from a weight training programme to develop **muscular endurance**.

Weeks	Repetition Maximum (RM)	Weight in kilogrammes
Weeks 1 – 3	5 RM	10 kg
Weeks 4 – 6	10 RM	15 kg
Weeks 7 – 9	15 RM	20 kg

(i) Comment on the appropriateness of the given **weights** (10 kg; 15 kg and 20 kg) for the **Repetition Maximums** (RMs) given.

[2]

(ii)	Comment on the appropriateness of the Repetition Maximums (RMs) (5RM; 10RM and 15RM) to develop muscular endurance over the	
	9 weeks.	
		[2]
		_ []
	[Tu	n ove

- DD vg Lesmina <u>C</u> DD va Lesmina <u>O</u> Ð O. 93) Œ Ð O: 93) O. ÐÐ O: ÐÐ Œ O: 93) O: Ð Œ Ð <u>O</u> Ð Ø ÐÐ Ø ÐÐ O: ÐÐ O: 22) O.]] O. Ð Œ Ð O. Ð Ø ÐÐ Ø 22) <u>O</u>
- (b) Study the information below that is taken from a weight training programme to develop **muscular endurance**.

Weeks	Repetition Maximum (RM)	Number of repetitions
Weeks 1 – 3	25 RM	15
Weeks 4 – 6	20 RM	20
Weeks 7 – 9	15 RM	25

(i) Comment on the appropriateness of the **number of repetitions** (15; 20 and 25) for the **Repetition Maximums** (RMs) given.

_____ [2]

ii)	Comment on the appropriateness of the Repetition Maximums (RMs) (25 RM; 20 RM and 15 RM) to develop muscular endurance over the 9 weeks.	
		_ [
	THIS IS THE END OF THE QUESTION PAPER	

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
Total Marks	

Examiner Number

DO NOT WRITE ON THIS PAGE

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright holders may have been unsuccessful and CCEA will be happy to rectify any omissions of acknowledgement in future if notified.

202864