Candidate Forename		Candidate Surname	

Centre Number						Candidate Number				

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

ADVANCED GCE

G453

PHYSICAL EDUCATION

Principles and concepts across different areas of Physical Education

WEDNESDAY 23 JUNE 2010: Morning

DURATION: 2 hours 30 minutes

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

Candidates answer on the Answer Booklet

OCR SUPPLIED MATERIALS:

8 page Answer Booklet

OTHER MATERIALS REQUIRED:

None

READ INSTRUCTIONS OVERLEAF

DC (CW/SW) MEP60431 30712/1

INSTRUCTIONS TO CANDIDATES

- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the spaces provided on the Answer Booklet.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully and make sure that you know what you have to do before starting your answer.**
- **Answer THREE questions, at least one of which must be from Section A.**

INFORMATION FOR CANDIDATES

- **The number of marks is given in brackets [ ] at the end of each question or part question.**
- **The quality of your written communication will be assessed in questions that are indicated accordingly (*).**
- **The total number of marks for this paper is 105.**

SECTION A

Candidates must answer at least ONE question from Section A.

HISTORICAL STUDIES (OPTION A1)

1 (a) Describe three features of the 1950s programme of Physical Education for state schools ('Moving and Growing' and 'Planning the Programme'). Outline one difference between the 1950s programme and the programme for Physical Education in state secondary schools today. [4]

(b) Popular recreations in pre-industrial Britain had certain characteristics.
In what ways was Real Tennis different from most other popular recreations?
Account for limited participation in Real Tennis today. [5]

(c) Cricket in public schools had very high status in stage three. Explain how participation in cricket could develop values in public school boys at this time. Explain barriers to achieving these values through cricket in schools today. [6]

(d)* Evaluate critically the impact of socio-cultural factors that have influenced the growth and development of association football from 1850 to today. [20]

[Total: 35]

SECTION A

COMPARATIVE STUDIES (OPTION A2)

2 (a) In most countries, participation and performance in physical activity are affected by historical and geographical factors.

Outline historical and geographical factors in the UK and in Australia that affect participation and performance in physical activity. [5]

(b) Compare strategies to promote mass participation in Australia with those in the UK. [5]

(c) Describe Physical Education in American high schools. Compare school Physical Education in the USA with that in the UK. [5]

(d)* Compare how schools and colleges in the USA help to prepare young people for participation in professional sport with those in the UK.

Evaluate the effectiveness of both systems. [20]

[Total: 35]

SECTION B

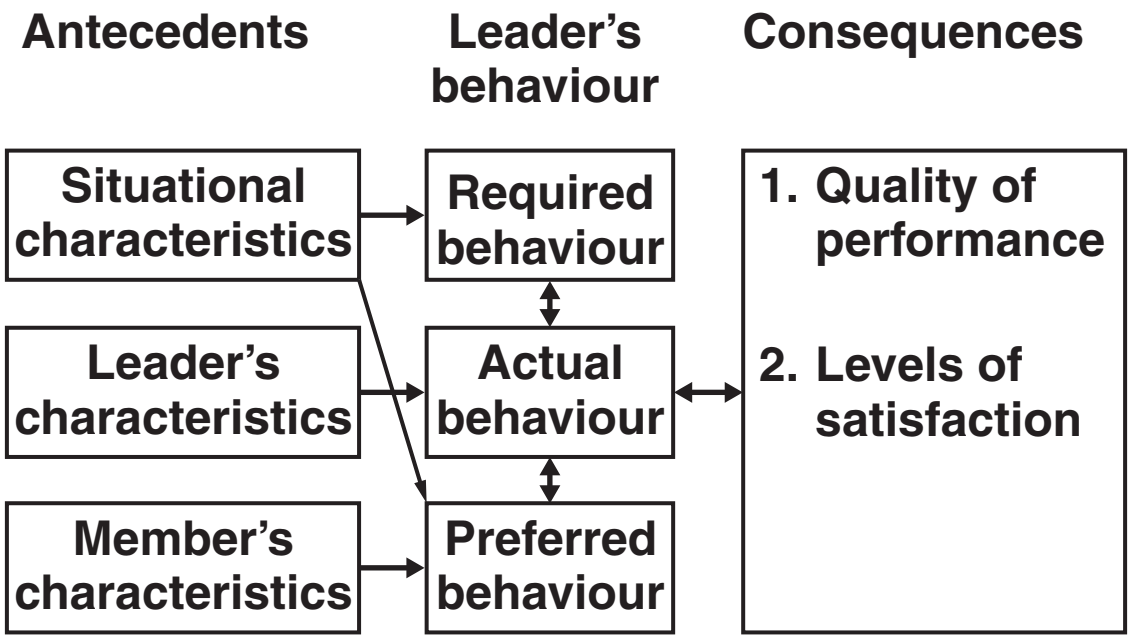
SPORTS PSYCHOLOGY (OPTION B1)

3 (a) The 'need to achieve' is often viewed as necessary for good sports performance both for individuals and for members of a team.

Using practical examples describe the features of a 'need to achieve' performer. [4]

(b) Explain the effects of having low self-efficacy on sustaining a balanced, healthy lifestyle. Describe TWO strategies to raise self-efficacy to enable a young person to adopt a balanced, active and healthy lifestyle. [5]

(c) Fig. 1 shows Chelladurai's multi-dimensional model of leadership.



Source: Page 312 Advanced PE and Sport 3rd Ed Nelson Thornes ISBN 0748775293 Copyright John Honeybourne

Fig. 1

Using the model in Fig. 1 explain how effective leadership can encourage participation. [6]

(d)* Describe theories related to personality and how they affect sports performance. Evaluate critically personality profiling in sport. [20]

[Total: 35]

SECTION B

BIOMECHANICS (OPTION B2)

4 (a) Fig. 2 shows a hockey player taking a penalty flick at goal.

Fig. 2

Sketch a free body diagram showing all the forces acting on the hockey ball as it is being flicked.

Using Newton's Laws of Motion, explain the effect of the resultant force acting on the hockey ball. [6]

(b) Describe the factors that affect the fluid friction acting against a swimmer during 100 m backstroke. [5]

(c) Compare the shape of the flight path of a shot putt with that of a fast moving badminton shuttle. Explain the reasons for the differences in their respective flight paths. [4]

(d)* What is meant by the terms Angular Velocity, Moment of Inertia and Angular Momentum and sketch a graph showing their relationship when a gymnast performs a somersault from take off to landing.

Compare a gymnast's use of the analogue of Newton's First Law of Motion to control the performance of a somersault with that of a skier performing a turn during a slalom. [20]

[Total: 35]

SECTION B

EXERCISE AND SPORT PHYSIOLOGY (OPTION B3)

5 (a) Define the term VO_2 max and identify three factors that affect a performer's VO_2 max. [4]

(b) Interval training is a popular method of training. Describe an interval training session designed to improve maximal strength.

Explain the benefits that interval training has over other methods of training. [5]

(c) What is meant by the term obesity and to what extent does being obese impact on the health of an individual? [6]

(d)* Examine the information in Fig. 3 and explain the changes in the contribution of each of the energy systems for the three different athletic events.

Explain why the percentage contribution of each energy system would probably change for a recreational runner performing the same distances.

DISTANCE (m)	TIME (RECORDED BY MALE ELITE ATHLETES)	CONTRIBUTION OF EACH ENERGY SYSTEM (%)		
		ALACTIC	LACTIC ACID	AEROBIC
100	9.8 secs	39	56	5
800	1 min 42 secs	9	33	58
5,000	12 mins 40 secs	1	6	93

Fig. 3

[20]

[Total: 35]

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