

## PHYSICAL EDUCATION PAPER 1 (Sample Paper)

Time allowed: 2 hours 15 minutes  
This paper must be answered in English.

### GENERAL INSTRUCTIONS

1. There are **TWO** sections, A and B, in this Paper. Section A carries 36 marks and Section B carries 54 marks. You are advised to finish Section A in about 35 minutes.
2. Section A consists of multiple-choice questions in this question book. Section B contains short questions printed separately in Question-Answer Book B.
3. Answers to Section A should be marked on the Multiple-choice Answer Sheet while answers to Section B should be written in the spaces provided in Question-Answer Book B. **The Answer Sheet for Section A and the Question-Answer Book for Section B must be handed in separately at the end of the examination.**

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### SECTION A (MULTIPLE-CHOICE QUESTIONS)

#### INSTRUCTIONS FOR SECTION A

1. Read the instructions on the Answer Sheet carefully. Stick a barcode label and insert the information required in the spaces provided.
2. When told to open this book, you should check that all the questions are there. Look for the words **'END OF SECTION A'** after the last question.
3. All questions carry equal marks.
4. **ANSWER ALL QUESTIONS.** You are advised to use an HB pencil to mark all your answers on the Answer Sheet, so that wrong marks can be completely erased with a clean rubber.
5. You should mark only **ONE** answer for each question. If you mark more than one answer, you will receive **NO MARKS** for that question.
6. No marks will be deducted for wrong answers.

Not to be taken away before the  
end of the examination session

**SECTION A** (36 marks)

1. Which of the following statements are the appropriate definitions of physical recreation ?
- (1) physical activity of relaxing nature
  - (2) active form of leisure
  - (3) learning through bodily movement
  - (4) competitive sports
- A. (1), (2) and (3) only
  - B. (1), (2) and (4) only
  - C. (1), (3) and (4) only
  - D. (2), (3) and (4) only
2. Which of the following organisations is responsible for organising recreation activities for Hong Kong citizens ?
- A. Hong Kong Coaching Committee
  - B. Sports Federation and Olympic Committee of Hong Kong, China
  - C. Hong Kong Sports Institute
  - D. Leisure and Cultural Services Department
3. Which of the following is the major function of physical training in early civilisations ?
- A. To train soldiers.
  - B. To contribute to the total development of individuals.
  - C. To cultivate religious belief.
  - D. To promote individual enjoyment.
4. Which of the following are cardiorespiratory responses during exercise ?
- (1) increase of stroke volume
  - (2) increase of heart rate
  - (3) increase of ventilation rate
  - (4) increase of maximal aerobic power
- A. (1), (2) and (3) only
  - B. (1), (2) and (4) only
  - C. (1), (3) and (4) only
  - D. (2), (3) and (4) only
5. Which of the following is the main source of energy system when performing an activity that requires approximately 60 seconds of power and speed ?
- A. ATP-PC energy system which requires high amount of oxygen.
  - B. ATP-PC energy system which requires little amount of oxygen.
  - C. Lactic acid system which requires little amount of oxygen.
  - D. Aerobic energy system that can supply energy more than 60 seconds.

6. Which of the following are the benefits of having strong skeletal muscle ?

- (1) Protecting the joints.
- (2) Maintaining appropriate posture.
- (3) Enhancing cardiorespiratory endurance.
- (4) Improving sports performance.

- A. (1), (2) and (3) only
- B. (1), (2) and (4) only
- C. (1), (3) and (4) only
- D. (1), (2), (3) and (4)

7. Which of the following persons has a relatively healthier level of resting blood pressure ?

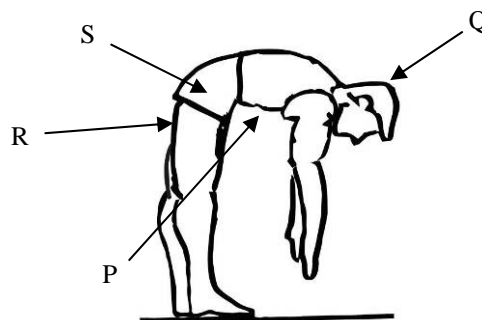
|       | Systolic blood pressure / mmHg | Diastolic blood pressure / mmHg |
|-------|--------------------------------|---------------------------------|
| John  | 100                            | 50                              |
| Peter | 120                            | 80                              |
| Ivan  | 140                            | 90                              |
| Allen | 160                            | 100                             |

- A. John
- B. Peter
- C. Ivan
- D. Allen

8. Which of the following are responsible for controlling muscular movement of head, neck, body and limbs; and to transmit the nerve impulse to the central nervous system after receiving a signal respectively ?

- A. sympathetic nerve; parasympathetic nerve
- B. central nerve; autonomic nerve
- C. parasympathetic nerve; central nerve
- D. motor nerve; sensory nerve

9. Which of the following is the position of the centre of gravity ?



- A. P
- B. Q
- C. R
- D. S

10. Which of the following statements best describes the principle of stability?
- A. The higher the centre of gravity to the base of support, the greater the stability.
  - B. The nearer the centre of gravity to the edges of the base of support, the greater the stability.
  - C. The narrower the base of support, the more stable the body.
  - D. The wider the base of support, the more stable the body.
11. Which of the following muscle groups is responsible for lifting up the thigh ?
- A. hamstrings
  - B. triceps
  - C. quadriceps
  - D. gluteus maximus
12. What is the minimal amount of energy that has to be consumed for reducing one pound (0.45 kg) of fat ?
- A. 2500 Kcal (10460 kJ)
  - B. 3000 Kcal (12552 kJ)
  - C. 3500 Kcal (14664 kJ)
  - D. 4500 Kcal (18828 kJ)
13. Which of the following statements best describe the relationship between fat cell and body fat ?
- (1) The number of fat cell is unchangeable.
  - (2) The number of fat cell is changeable after training.
  - (3) The size of fat cell is unchangeable.
  - (4) The size of fat cell is changeable after training.
- A. (1) and (3) only
  - B. (1) and (4) only
  - C. (2) and (3) only
  - D. (2) and (4) only
14. Which of the following is an incorrect description of nutrient ?
- A. Protein is the main source of energy supply.
  - B. Vitamins are organic compounds involved in body metabolism.
  - C. Water is essential for life.
  - D. Minerals are essential substances for bones and teeth.
15. Which of the following are the main physical qualities required for 110 m hurdlers ?
- (1) speed
  - (2) anaerobic power
  - (3) flexibility
  - (4) muscular strength
- A. (1) and (2) only
  - B. (1), (3) and (4) only
  - C. (2), (3) and (4) only
  - D. (1), (2), (3) and (4)

16. Which of the following are the harmful effects of smoking to female ?

- (1) more wrinkles on the skin
  - (2) osteoporosis
  - (3) lung cancer
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

17.

| Week | Sets | Repetitions | Load (kg) | Rest (s) |
|------|------|-------------|-----------|----------|
| 1    | 2    | 10          | 60        | 40       |
| 2    | 3    | 12          | 65        | 35       |
| 3    | 4    | 14          | 70        | 30       |

Which of the following training principle is best illustrated in the above programme ?

- A. specificity
- B. reversibility
- C. variance
- D. overload

18. Which of the following is the principle of specificity training ?

- A. Individual differences must be taken into account.
- B. Progression, based on the individual's initial level of fitness, should be gradually increased to achieve the desired benefits.
- C. Particular training should be carried out based on the pre-set training target.
- D. Physiological changes should be carefully monitored so that more rapid progress can be achieved.

19. Which of the following are the reasons why a sprinter frequently uses ball games in the training programme during off-season ?

- (1) To maintain aerobic fitness.
  - (2) To maintain muscular strength.
  - (3) To ease the psychological stress of the sprinter.
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

20. Which of the following are the reasons why children are not suitable for regular intensive weight training ?

- (1) digestive system is not fully developed
  - (2) bones are not fully developed
  - (3) muscles are not fully developed
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

21. Which of the following are the main factors that should be considered in designing an interval training programme ?
- (1) intensity of training interval
  - (2) duration of recovery interval
  - (3) repetition of interval
  - (4) progression of each training
- A. (1), (2) and (3) only
  - B. (1), (2) and (4) only
  - C. (1), (3) and (4) only
  - D. (2), (3) and (4) only
22. What is the injury type of tennis elbow ?
- A. impact injury
  - B. overuse injury
  - C. muscle injury
  - D. sprains
23. Which of the following is the correct order of first aid treatment procedures for common strain and sprain ?
- (1) To use ice application for 10 minutes.
  - (2) To elevate the injured area to a position higher than the heart.
  - (3) To rest.
  - (4) To use elastic bandage to press the injured area.
- A. (1), (2), (3), (4)
  - B. (2), (1), (4), (3)
  - C. (3), (1), (4), (2)
  - D. (3), (4), (2), (1)
24. After vigorous exercise, an untrained person usually feels muscle sore. When will the sore feeling normally begin ?
- A. 24 hours after concentric exercises
  - B. 24 hours after eccentric exercises
  - C. 60 hours after concentric exercises
  - D. 60 hours after eccentric exercises
25. Which of the following activities can be classified as an open skill ?
- A. sprinting
  - B. handball game
  - C. golf putting
  - D. discus throwing
26. Which of the following will happen when an athlete is in the autonomous phase of learning ?
- A. athlete starts to recognise errors
  - B. athlete makes frequent mistakes
  - C. athlete provides frequent instruction and demonstration
  - D. athlete makes fewer mistakes

27. Which of the following relationship can be predicted by the Inverted-U Model ?
- A. arousal and heart rate
  - B. arousal and body temperature
  - C. arousal and hormone
  - D. arousal and performance
28. Which of the following is not an internal motive for participation in competitions ?
- A. opportunity to win money
  - B. desire to conquer one's fears
  - C. opportunity to test one's ability
  - D. having fun
29. Which of the following will affect the performance of athletes ?
- (1) personality
  - (2) level of anxiety
  - (3) ability to concentrate
  - (4) moral standard
- A. (1), (2) and (3) only
  - B. (1), (2) and (4) only
  - C. (1), (3) and (4) only
  - D. (2), (3) and (4) only
30. Which of the following are the factors influencing sports participation ?
- (1) sports and physical recreation facilities
  - (2) age
  - (3) nationality
  - (4) social-economic class
- A. (1), (2) and (3) only
  - B. (1), (2) and (4) only
  - C. (1), (3) and (4) only
  - D. (2), (3) and (4) only
31. Which of the following is not a member of the East Asian Games ?
- A. Chinese Taipei
  - B. Mongolia
  - C. Australia
  - D. Macau
32. Which of the following is not a concern of the "wellness movement" ?
- A. illness treatment
  - B. health promotion
  - C. disease prevention
  - D. lifestyle management

33. Which of the following are the benefits of inter-school sports ?
- (1) To build up responsibility.
  - (2) To develop team spirit.
  - (3) To prevent sport injury.
  - (4) To build up friendships.
- A. (1), (2) and (3) only
  - B. (1), (2) and (4) only
  - C. (1), (3) and (4) only
  - D. (2), (3) and (4) only
34. Which of the following provinces/cities organised the 10<sup>th</sup> National Games of China ?
- A. Shanghai
  - B. Guangdong
  - C. Beijing
  - D. Jiangsu
35. How many matches will be organised by the organising committee in a basketball competition with 8 teams if a single round-robin system is employed ?
- A. 26
  - B. 28
  - C. 54
  - D. 56
36. Which of the following are the reasons why commercial corporations in Hong Kong are willing to invest in recreational programmes to employees ?
- (1) To increase employees' productivity.
  - (2) To nurture elite athletes.
  - (3) To decrease absenteeism.
  - (4) To improve employees' health.
- A. (1), (2) and (3) only
  - B. (1), (2) and (4) only
  - C. (1), (3) and (4) only
  - D. (2), (3) and (4) only

**END OF SECTION A**



# B

HONG KONG EXAMINATIONS AND ASSESSMENT AUTHORITY  
HONG KONG DIPLOMA OF SECONDARY EDUCATION EXAMINATION

## PHYSICAL EDUCATION PAPER 1

(Sample Paper)

### SECTION B : Question-Answer Book B

This paper must be answered in English.

#### INSTRUCTIONS

- (1) Write your Candidate Number in the space provided on Page 1.
- (2) Stick barcode labels in the spaces provided on Pages 1, 3 and 5.
- (3) Refer to the general instructions on the cover of the Question Book for Section A.
- (4) The questions in this Question-Answer Book carry 54 marks. Answer **ALL** questions.
- (5) Write your answers to Section B in the spaces provided in this Question-Answer Book. Do not write in the margins. Answers written in the margins will not be marked.
- (6) Supplementary answer sheets will be provided on request. Write your candidate number, fill in the question number and stick a barcode label on each sheet. Tie them loosely but securely with a string **INSIDE** this Question-Answer Book.
- (7) Present your answers in paragraphs wherever appropriate.

Please stick the barcode label here.

Candidate Number

**Marker's  
Use Only**

**Examiner's  
Use Only**

Marker No.

Examiner No.

Question No.

Marks

Marks

1

2

3

4

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6

7

8

9

10

Total

**SECTION B (54 marks)**

1. State and discuss ONE historical incident in the 1980s which the Olympics were being used as a political tool.

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(3 marks)

Answers written in the margins will not be marked.

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2. Figure 1 shows a man doing pull-up and Figure 2 shows a man pushing against a wall. Both actions require bicep and tricep to exert force.



Figure 1

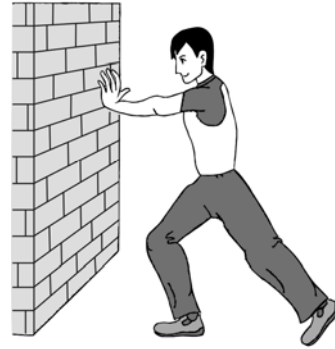


Figure 2

(a) State and explain the types of muscle contraction involved in bicep and tricep when the man pulls himself up as shown in Figure 1.

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(2 marks)

(b) State and explain the type of muscle contractions involved in bicep and tricep when the man exerts force to push against the wall as shown in Figure 2.

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(2 marks)

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3. Joe is a well-trained short distance runner with a personal best time of 10.37 seconds for the 100 m

(a) (i) State and explain the predominant energy system used by Joe in the event.

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(ii) Explain why this energy system is used.

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(iii) State ONE by-product of this energy system.

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(3 marks)

(b) State the predominant nutrient used to provide energy for Joe in the event. Give ONE example of food that provides this nutrient.

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(1 mark)

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4. In the long jump event, an athlete goes through four phases including an approach run, a takeoff, a flight and a landing.

(a) (i) Name the force applied to the athlete during takeoff.

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(ii) Name the force applied to the athlete during the flight phase.

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(1 mark)

(b) From movement analysis point of view, state and explain THREE factors that influence the jumping distance.

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(3 marks)

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5. A marathon race is held in July in Hong Kong. The ambient temperature is around 28°C and the humidity is around 90% in the competition day.

(a) State FOUR reasons for drinking water during this race.

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(2 marks)

(b) Peter is a very successful marathon runner who participates in the competition.

(i) What type of muscle fibre he is likely to have more ? State TWO characteristics of that type of muscle fibre.

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(ii) After the race, he becomes fatigue and feels sore in his muscles. State ONE possible cause of the symptom and ONE preventive strategy to reduce the possibility of the symptom to occur.

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(4 marks)

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6. Several cases related to heart attack leading to sudden death are reported recently in Hong Kong.

(a) State and explain TWO uncontrollable factors that lead to coronary heart disease.

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(2 marks)

(b) State FOUR controllable factors that can prevent coronary heart disease.

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(2 marks)

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7. Peter is a 30-year-old male. He is quite physically active but has no experience in long distance running. Peter aims at finishing a half marathon within 2 hrs after 6 months of training. He seeks advice from several physical fitness professionals and Table 1 shows a 24-week training programme for him.

| Week  | Sessions per week | Training distance per session | Exercise duration and target time |
|-------|-------------------|-------------------------------|-----------------------------------|
| 1-2   | 3                 | 5 km                          | 30 min (6 min / km)               |
| 3-4   | 3                 | 7 km                          | 42 min (6 min / km)               |
| 5-8   | 4                 | 8 km                          | 46 min (5 min 45s / km)           |
| 9-12  | 5                 | 9 km                          | 51 min (5 min 40s / km)           |
| 13-16 | 5                 | 10 km                         | 57 min (5 min 42s / km)           |
| 17-20 | 5                 | 12 km                         | 1 hr 8 min (5 min 40s / km)       |
| 21-22 | 4                 | 15 km                         | 1 hr 27 min (5 min 48s / km)      |
| 23    | 3                 | 12 km                         | 1 hr 7 min (5 min 35s / km)       |
| 24    | 2                 | 5 km                          | 30 min (6 min / km)               |

**Table 1**

(a) Discuss TWO training principles applied from week 1 to week 20.

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(3 marks)

(b) To finish a half marathon within 2 hours, the target time is 6 min / km. Explain why the training speed, starting from week 5, set much faster than 6 min / km.

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(2 marks)

(c) In terms of training effect, explain why the “sessions per week” reduces from week 21.

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(2 marks)

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8. John is a tennis player participating in a training programme to prepare for a local match.

(a) State and explain a 'SMART' goal he can set for the training.

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(5 marks)

John does not perform satisfactorily during the match due to anxiety and stress.

(b) State TWO physiological symptoms that may occur under stress.

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(1 mark)

(c) State FOUR relaxation techniques that can be used to reduce the stress.

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(2 marks)

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9. (a) State and explain TWO pros and cons of hosting the 2009 East Asian Games in Hong Kong.

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(4 marks)

(b) Discuss “Friendship First, Competition Second”.

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(2 marks)

(c) State and discuss THREE factors in which parents influence their children’s participation in sports.

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(3 marks)

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10. The basketball association of a country is planning to organise a national league to promote this sport. There is a 20-year-old multi-purpose stadium which can be used for running basketball games. Some members in the basketball association propose to build a new stadium for the league. State and explain TWO factors that need to be considered when deciding the venue of the games.

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(3 marks)

(b) (i) State TWO possible sources of incomes to fund the league.

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(ii) State TWO types of expenditure in organising the league.

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(2 marks)

**END OF PAPER**

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