## Physical Education

## General instruction

- Work in this book will not be marked.


## Section 1

## QUESTION 1

Which option is best classified as a feature of a training session?
(A) frequency of training
(B) performance analysis
(C) tapering and recovery
(D) rise in body temperature

## QUESTION 2

The RAMP approach to warming up before starting a training session refers to
(A) raise, activate, mobilise, prepare.
(B) rest, activate, mobilise, prepare.
(C) rise, articulate, moderate, plan.
(D) raise, activate, moderate, plan.

## QUESTION 3

The point at which lactic acid begins to accumulate in the muscles at a faster rate than it can be removed is known as
(A) the aerobic threshold.
(B) the lactate threshold.
(C) anaerobic glycolysis.
(D) lactate formation.

## QUESTION 4

According to the principle of progressive overload, what must happen before an increased load can be applied to a training program?
(A) completion of the previous microcycle
(B) adaptation to the previous training load
(C) improvement in an authentic performance
(D) training conducted within the aerobic energy system

## QUESTION 5

The key features of an effective warm-up include
(A) conditioning and recovery.
(B) low intensity and high duration.
(C) muscle activation and dynamic stretching.
(D) reduced heart rate and removal of waste products from exertion.

## QUESTION 6

Energy for physical activity is provided by the interplay of three energy systems. During this interplay, the body uses energy from food to continuously
(A) release energy from ATP.
(B) release energy from ADP.
(C) resynthesise ADP and phosphate into ATP.
(D) resynthesise ATP and phosphate into ADP.

## QUESTION 7

The table contains features of each energy system.

| Energy system | ATP-PC | lactic acid | aerobic |
| :--- | :--- | :--- | :--- |
| Anaerobic/aerobic | anaerobic | anaerobic | aerobic |
| Fuel/energy source | ATP-PC | $?$ | fat and glucose |
| By-products | creatine | $?$ | $\mathrm{CO}_{2}$ and water |
| Intensity | very high | $?$ | low to moderate |
| Duration | $10-15$ seconds | $?$ | 3 minutes onwards |
| Examples of physical activities | short sprints, <br> swimming sprints | 800 m and 1500 m <br> running events | endurance events, <br> running, cycling |

Which option accurately completes the table of features?

(A) | Fuel/energy source | glycogen |
| :--- | :--- |
| By-products | lactic and pyruvic acid |
| Intensity | high |
| Duration | up to 3 minutes |

(B)

| Fuel/energy source | fat |
| :--- | :--- |
| By-products | lactic and pyruvic acid |
| Intensity | very high |
| Duration | up to 3 minutes |

(C)

| Fuel/energy source | glycogen |
| :--- | :--- |
| By-products | water |
| Intensity | moderate |
| Duration | $1-2$ minutes |

(D)

| Fuel/energy source | fat |
| :--- | :--- |
| By-products | $\mathrm{CO}_{2}$ and water |
| Intensity | very high |
| Duration | 30 seconds |

## QUESTION 8

The table shows four microcycles.

| Microcycle 1 | Run each day, with low-intensity continuous movement for a minimum of 1 hour. |
| :--- | :--- |
| Microcycle 2 | Run every second day, with: <br> • a minimum of 30 short (30-second) efforts <br> • 1:3 work:rest (W:R) ratio. |
| Microcycle 3 | Run each day, with: <br> • 30 short efforts (30 seconds per effort) with 1:3 W:R ratio <br> followed by <br> • a low-intensity continuous run for a minimum of 1 hour. |
| Microcycle 4 | Run every second day, with: <br> - 30 short efforts with medium rest <br> followed by <br> • a low-intensity continuous run for a minimum of 1 hour. |

Which 1-week microcycle would be most effective in maintaining aerobic capacity?
(A) Microcycle 1
(B) Microcycle 2
(C) Microcycle 3
(D) Microcycle 4

## QUESTION 9

The table shows combinations of energy system contributions for physical activities.

| Physical activity | ATP-PC (\%) | Lactic acid (\%) | Aerobic (\%) |
| :---: | :---: | :---: | :---: |
| 1 | 80 | 15 | 5 |
| 2 | 98 | 2 | 0 |
| 3 | 50 | 44 | 6 |
| 4 | 85 | 15 | 0 |

Which list best represents the physical activities in the table?
(A) 100 m sprint, marathon run, 200 m sprint, Australian football
(B) 1500 m run, rowing, volleyball, 400 m freestyle swim
(C) baseball, diving, 200 m sprint, 100 m freestyle swim
(D) baseball, basketball, marathon run, diving

## QUESTION 10

An athlete is completing the training session shown in the table.

| Sets | $3-6$ |
| :--- | :--- |
| Repetitions | $4-6$ |
| Load | $60-80 \%$ |
| Rest | 3 minutes between sets |
| Speed | fast/explosive |

Which component of fitness is being targeted?
(A) power
(B) strength
(C) flexibility
(D) muscular endurance

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