



PE.PT5 Training Seasons and Periodisation

AQA 8582 · Calculator allowed · about 50 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** Which phase of the training year usually focuses mainly on building general and sport-specific fitness ready for competition, rather than on match play or tapering?

- ☐ A) Pre-season
☐ B) Peak/competition season
☐ C) Post-season/transition
☐ D) None of these

(Total for Question 1 is 1 mark)

- 2** State the phase of the training year described by each statement, and give a brief description of its general aim.

(a) The phase before the competitive season begins. (1)

(b) The phase during which the main competitions or matches of the year take place. (1)

(c) The phase after the competitive season ends, before the next pre-season begins. (1)

(Total for Question 2 is 3 marks)

- 3** Describe how the focus of training typically changes across the pre-season period, from its early weeks to its final weeks before the competitive season starts.

(Total for Question 3 is 3 marks)

- 4 Explain why building a general aerobic fitness base early in pre-season, before adding high-intensity sport-specific training, reduces an athlete's risk of injury or overtraining.

(Total for Question 4 is 2 marks)

- 5 Explain what is meant by the term 'tapering' in relation to the peak/competition season, and state why an athlete might use it before a major competition.

(Total for Question 5 is 2 marks)

- 6 Explain why the focus of training during peak/competition season typically shifts toward MAINTAINING fitness, rather than continuing to build it as intensively as in pre-season.

(Total for Question 6 is 2 marks)

- 7 Name the phase of the training year that typically follows the end of the competitive season, involving reduced training load and active recovery.

(Total for Question 7 is 1 mark)

- 8 Explain what typically makes up the post-season/transition phase, and why this phase is important for an athlete.

(Total for Question 8 is 3 marks)

9 During the transition phase, a 20-year-old athlete does light aerobic recovery sessions at only 50 to 60 per cent of their maximum heart rate (MHR), using the formula $MHR = 220 \text{ minus age}$.

(a) Calculate this athlete's estimated maximum heart rate. (1)

(b) Calculate the lower and upper limits of this athlete's recovery training zone (50 to 60 per cent of their MHR). (2)

(Total for Question 9 is 3 marks)

10 Explain why training at only 50 to 60 per cent of MHR during the transition phase is unlikely to cause significant further fitness gains, but is still an appropriate intensity for this phase of the training year.

(Total for Question 10 is 3 marks)

11 Efe is training to run a marathon in 30 weeks' time, having taken a 6-week rest since her last event.

(a) State which phase of the training year Efe's 6-week rest period represents. (1)

(b) Suggest what Efe's training should focus on in the FIRST half of her 30-week build-up. (2)

(c) Suggest what Efe's training should focus on in the FINAL weeks before race day, referring to the concept of tapering. (2)

(Total for Question 11 is 5 marks)

- 12** Explain one risk of skipping the post-season/transition phase and moving straight from competition into intense pre-season training for the following year.

(Total for Question 12 is 2 marks)

- 13** A footballer plays their final league match of the season in May, then does light, low-intensity activity and addresses a knee niggle over the following 4 weeks before pre-season training resumes in July. Which training-year phase does this describe?

- ☐ A) Peak/competition season
☐ B) Pre-season
☐ C) Post-season/transition
☐ D) Tapering

(Total for Question 13 is 1 mark)

- 14** State two features of training that typically distinguish the pre-season phase from the peak/competition season.

(a) One feature of pre-season training. (1)

(b) One feature of the peak/competition season, in contrast. (1)

(Total for Question 14 is 2 marks)

- 15** Explain why an athlete's training intensity is usually LOWER during early pre-season than during the peak of pre-season, even though both phases come before the competitive season starts.

(Total for Question 15 is 2 marks)

- 16** State two signs that might suggest an athlete's training programme has not included an adequate post-season/transition phase.

(Total for Question 16 is 2 marks)

- 17** State and explain one reason why a coach might re-test an athlete's fitness (e.g. using the multi-stage fitness test) at the START of pre-season and again at the END of pre-season.

(Total for Question 17 is 3 marks)

- 18** A swimmer has 16 weeks before their main competition of the year, having just finished a 3-week post-season break.

- (a) Suggest an appropriate training focus for weeks 1-8 (the pre-season build-up). (2)
- (b) Suggest an appropriate training focus for weeks 9-14, as training moves toward competition-specific preparation. (2)

(Total for Question 18 is 4 marks)

- 19** For a distance-event athlete (e.g. a 5000m runner), state one training method that would be more appropriate during the general aerobic-base-building weeks of early pre-season, and one that would be more appropriate during race-specific preparation closer to competition.

- (a) A training method suitable for early pre-season base-building. (1)
- (b) A training method suitable for race-specific preparation closer to competition. (1)

(Total for Question 19 is 2 marks)

20 Priya is a 400m sprinter with a major national championship in 20 weeks' time.

Evaluate how Priya's training should be structured across the pre-season, competition and any tapering period leading up to the championship, and discuss why training at maximum intensity every week for the full 20 weeks would be an ineffective strategy.

(Total for Question 20 is 9 marks)

Mark scheme · PE.PT5 Training Seasons and Periodisation

Question 1

- **B1** A (pre-season)
- **Answer: A (pre-season)**

Question 2

- (a) **B1** pre-season; aim = to build up general and sport-specific fitness ready for competition, oe
- **(a) Answer: Pre-season; its aim is to build up general and sport-specific fitness ready for competition.**
- (b) **B1** peak/competition season; aim = to maintain fitness and focus on skills/tactics and performing well in competition, oe
- **(b) Answer: Peak/competition season; its aim is to maintain fitness while focusing on skills, tactics and performing well in competition.**
- (c) **B1** post-season/transition; aim = active recovery, addressing injuries and reducing training load, oe
- **(c) Answer: Post-season/transition; its aim is active recovery, addressing any injuries and reducing training load.**

Question 3

- **B1** in the early weeks, training typically focuses on building a general aerobic fitness base, often at a lower intensity and higher volume, oe
- **B1** as pre-season progresses, training becomes more sport-specific, oe
- **B1** in the final weeks, training typically increases in intensity and includes more skill-based/tactical work, closer to actual match demands, oe
- **Answer: In the early weeks of pre-season, training typically focuses on building a general aerobic fitness base at lower intensity and higher volume. As pre-season progresses, training becomes more sport-specific, and in the final weeks it typically increases in intensity and includes more skill-based and tactical work, closer to the actual demands of matches.**

Question 4

- **B1** it allows the body (muscles, tendons, joints, cardiovascular system) to adapt gradually to increasing training demands rather than being exposed to high-intensity work before it is prepared, oe
- **B1** this follows the principle of progressive overload, giving the body time to adapt safely between increases in training demand, oe
- **Answer: Building a general base first allows the body's muscles, tendons, joints and cardiovascular system to adapt gradually to increasing demands, rather than being exposed to high-intensity work before they are prepared. This follows the principle of progressive overload, giving the body time to adapt safely between increases in training demand.**

Question 5

- **B1** tapering means reducing training volume and/or intensity in the period immediately before a key competition, oe
- **B1** so that the athlete arrives at the competition well-rested and fully recovered, while still maintaining the fitness they have already built, in order to perform at their peak on the day, oe
- **Answer: Tapering means reducing training volume and/or intensity in the period immediately before a key competition, so that the athlete arrives well-rested and fully recovered while still maintaining the fitness they have already built, aiming to perform at their peak on the day.**

Question 6

- **B1** large increases in training load during the competition season risk fatigue, injury or overtraining at a time when performance in actual matches/competitions matters most, oe
- **B1** enough training stimulus is still needed to avoid reversibility (losing fitness), but the balance shifts toward recovery, readiness for competition, and maintaining rather than heavily building fitness, oe
- **Answer: Large increases in training load during the competition season risk causing fatigue, injury or overtraining at exactly the time when performance in actual matches or competitions matters most. Enough training is still needed to avoid reversibility, but the balance shifts toward recovery and readiness for competition rather than heavily building fitness further.**

Question 7

- **B1** post-season / transition phase
- **Answer: Post-season (transition) phase.**

Question 8

- **B1** it typically involves light, active recovery or complete rest as needed, and addressing any injuries picked up during the season, oe
- **B1** general fitness may be maintained at a lower level rather than built further during this phase, oe
- **B1** it is important because it allows the athlete to recover physically and mentally, reducing the risk of burnout, while staying lightly active (rather than stopping completely) helps limit the fitness lost to reversibility, oe
- **Answer: The post-season/transition phase typically involves light, active recovery (or complete rest where needed) and addressing any injuries from the season, with general fitness maintained at a lower level rather than built further. It is important because it lets the athlete recover physically and mentally, reducing burnout risk, while staying lightly active rather than stopping completely helps limit fitness lost to reversibility.**

Question 9

- (a) **B1** 200 bpm ($220 - 20 = 200$)
- (a) **Answer: 200 bpm.**
- (b) **M1** 0.5×200 or 0.6×200 , oe
- (b) **A1** 100 bpm and 120 bpm, both correct
- (b) **Answer: 100 bpm to 120 bpm.**

Question 10

- **B1** 50 to 60 per cent of MHR is a relatively low intensity, below the level typically needed to significantly overload the cardiovascular system and cause further adaptation, oe
- **B1** however, the goal of the transition phase is recovery, not further fitness gains, so a low intensity is appropriate because it avoids adding excess fatigue, oe
- **B1** while still keeping the athlete lightly active, which helps limit the fitness that would otherwise be lost through reversibility if training stopped completely, oe
- **Answer: 50 to 60 per cent of MHR is a relatively low intensity, below the level typically needed to significantly overload the cardiovascular system and cause further adaptation. However, the goal of the transition phase is recovery rather than further gains, so this low intensity is appropriate: it avoids adding excess fatigue while keeping the athlete lightly active, which helps limit the fitness that would otherwise be lost to reversibility if training stopped completely.**

Question 11

- (a) **B1** post-season/transition
- (a) **Answer: Post-season/transition.**
- (b) **B1** building a general aerobic fitness base, oe
- (b) **B1** at a lower intensity and higher volume/mileage, using methods such as continuous or fartlek training, oe
- (b) **Answer: Building a general aerobic fitness base, at a lower intensity and higher mileage, using methods such as continuous or fartlek training.**
- (c) **B1** reducing her training volume while keeping some intensity/race-pace work, rather than stopping training completely, oe
- (c) **B1** so she arrives at the start line well-rested and fully recovered rather than fatigued, while still maintaining the fitness she has built, oe
- (c) **Answer: Reducing her training volume while keeping some intensity or race-pace work (tapering), rather than stopping completely, so she arrives at the start line well-rested and fully recovered rather than fatigued, while still maintaining the fitness she has built.**

Question 12

- **B1** the body has not had time to recover physically and mentally from the previous season, oe
- **B1** so the athlete has an increased risk of overtraining, burnout and injury once intense training resumes, oe
- **Answer: The body has not had time to recover physically and mentally from the previous season, so moving straight into intense training increases the athlete's risk of overtraining, burnout and injury.**

Question 13

- **B1** C (post-season/transition)
- **Answer: C (post-season/transition)**

Question 14

- (a) **B1** typically higher training volume, and a greater emphasis on building general fitness (especially early on), oe
- **(a) Answer: Typically higher training volume and a greater emphasis on building general fitness, especially early on.**
- (b) **B1** typically lower overall training volume, with more emphasis on maintaining fitness, skills, tactics and recovery between matches, oe
- **(b) Answer: Typically lower overall training volume, with more emphasis on maintaining fitness, skills, tactics and recovery between matches.**

Question 15

- **B1** this follows the principle of progressive overload: training should build up gradually rather than jumping straight to high intensity, oe
- **B1** starting at a lower intensity allows the body to adapt safely to increasing demands as pre-season progresses, reducing the risk of injury early in the training year, oe
- **Answer: This follows the principle of progressive overload: training should build up gradually rather than jumping straight to high intensity. Starting at a lower intensity allows the body to adapt safely to increasing demands as pre-season progresses, reducing the risk of injury early in the training year.**

Question 16

- **B1** persistent fatigue or declining performance despite continued training, oe
- **B1** increased frequency of illness or injury, or a noticeable loss of motivation to train, oe
- **Answer: Persistent fatigue or declining performance despite continued training, and an increased frequency of illness or injury (or a noticeable loss of motivation).**

Question 17

- **B1** to measure whether the pre-season training programme has been effective, oe
- **B1** by comparing the two results to see whether fitness has actually improved as planned, oe
- **B1** and to help set appropriate, individualised starting intensities for the athlete's competition-season training programme, oe
- **Answer: To measure whether the pre-season training programme has been effective, by comparing the start-of-pre-season and end-of-pre-season results to see whether fitness has actually improved as planned, and to help set an appropriate, individualised starting intensity for the athlete's competition-season programme.**

Question 18

- (a) **B1** building a general aerobic/fitness base and reinforcing technique, oe
- (a) **B1** gradually increasing training volume and intensity across these weeks, following progressive overload, oe
- **(a) Answer: Building a general aerobic fitness base and reinforcing technique, gradually increasing training volume and intensity across the weeks, following progressive overload.**
- (b) **B1** more race-pace/event-specific sets (matching the swimmer's competition distances and strokes), oe
- (b) **B1** with training becoming more specific and intense, and overall volume reducing compared with the base-building weeks, oe
- **(b) Answer: More race-pace, event-specific sets matching the swimmer's competition distances and strokes, with training becoming more specific and intense while overall volume reduces compared with the earlier base-building weeks.**

Question 19

- (a) **B1** continuous training (or fartlek training), oe
- **(a) Answer: Continuous training.**
- (b) **B1** interval training at race pace/intensity, oe
- **(b) Answer: Interval training set at race pace.**

Question 20

- **Level 3** (7-9): A detailed and coherent response that structures Priya's 20-week programme across appropriate phases (pre-season build-up, competition-specific preparation, tapering), applies the discussion specifically to a 400m sprinter's demands, and reaches a well-reasoned judgement on why constant maximum-intensity training would be ineffective. Sustained, accurate use of terminology throughout.
- **Level 2** (4-6): Some accurate structuring of the training phases and some discussion of why constant maximum intensity would be ineffective, with partial application to Priya's specific event, but coverage may be incomplete or underdeveloped.
- **Level 1** (1-3): Basic or generic statements about training seasons with little or no application to Priya's specific situation, and little or no discussion of why constant maximum intensity would be ineffective.
- **Level 0** (0): No relevant content.
- **Indicative content:**
 - Early weeks: a general aerobic/conditioning base and technique work, even for a sprinter, since some aerobic fitness supports recovery between repetitions and sessions, at a lower intensity than later phases.
 - Middle weeks: increasing intensity, with strength, power (e.g. plyometric training) and speed-specific interval work (short, high-intensity efforts with long recovery) becoming the main focus, following progressive overload.
 - Later weeks, approaching the championship: training becomes more race-specific, including starts, pacing and race-modelled efforts, with volume beginning to reduce as intensity/specificity increases.
 - Tapering in the final 1-2 weeks before the championship: training volume is reduced while keeping some high-intensity work, so Priya arrives well-rested but still sharp, rather than fatigued.
 - Training at maximum intensity every week for 20 weeks would give the body no time to adapt or recover between demanding sessions, increasing the risk of overtraining, injury and burnout.
 - A constant maximum-intensity approach also contains no periodised variation, so there is no planned recovery, no clear build toward peak condition, and a real risk of peaking too early (or being fatigued rather than fresh) on competition day.
 - This contradicts the principles of progressive overload (gradual, planned increases) and tapering (reduced load before competition) that a well-structured programme relies on.