



# Rugby School

## Sixth Form Entrance Examination Specimen

### Sports Science

Name:

**Time allowed: 1 hour**

**Total Marks Available: 60 marks**

#### **EQUIPMENT REQUIRED**

- Pen/ Pencil

#### **INSTRUCTIONS**

- Answer **all** questions.
- Complete the box above with your name.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. If additional space is required, use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.

#### **INFORMATION**

- There are three sections to this paper:
  - Section A - Applied Anatomy and Physiology
  - Section B - Health, Fitness & Well Being
  - Section C – Socio-cultural Issues & Sports Psychology
- Each section is worth 20 marks.
- Marks for each question are indicated in brackets at the end of the question.

## Section A - Applied Anatomy and Physiology

Answer all questions

1. Which one of the following is an effect of lactic acid?
  - (a) Gives you a feeling of excitement
  - (b) Causes extreme hunger pains
  - (c) Helps to create oxygen in the lungs
  - (d) Causes muscle fatigue during exercise

**[1]**
  
2. Which one of the following is a function of the skeleton?
  - (a) To deliver oxygen to working muscles
  - (b) To produce lactic acid
  - (c) To store minerals
  - (d) To create a good image

**[1]**
  
3. Which one of the following is an example of a muscle found in the back?
  - (a) Triceps
  - (b) Pectorals
  - (c) Trapezius
  - (d) Abdominals

**[1]**
  
4. Which one of the following is a role of the tendons?
  - (a) To attach bone to bone
  - (b) To attach muscle to muscle
  - (c) To attach muscle to bone
  - (d) To attach ligaments to muscle

**[1]**

5. Which one of the following describes the correct pathway of air through the respiratory system?

- A Mouth, trachea, bronchiole, bronchi, alveoli
- B Nose, trachea, bronchi, bronchiole, alveoli
- C Mouth, trachea, alveoli, bronchi, bronchiole
- D Nose, bronchi, bronchiole, trachea, alveoli

[1]

6. Describe, using a sporting example for each, how the skeleton allows the following functions.

Protection:

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.....  
.....

Movement:

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[2]

7. Name the **two** articulating bones at the hip .

- 1. ....
- 2. ....

[2]

8. (a) State the function of valves in the heart.

..... [1]

(b) The bicuspid and tricuspid valves are structures in the heart.

Name **one** other valve in the heart.

..... [1]

c) Name the blood vessel responsible for returning deoxygenated blood back to the heart and into the right atrium.

..... [1]



## Section B - Health, Fitness & Well Being

Answer all questions

11. Which one of the following is a reason for including fibre as part of a healthy diet?

- (a) To ensure enough calories are consumed
- (b) To ensure good hydration
- (c) To ensure vitamins are absorbed effectively
- (d) To ensure good bowel function

[1]

12. Cardiovascular endurance is a component of a healthy lifestyle.

Which one of the following is a benefit of cardiovascular endurance?

- (a) A grandparent being able to reach for things in everyday life
- (b) A school pupil not being too tired by the end of the day
- (c) An office worker getting jobs done quickly
- (d) A parent being able to lift a small child

[1]

13. Which one of the following is the best measure of health and well-being?

- (a) How much money a person has
- (b) Only drinking five units of alcohol per day
- (c) The frequency of public transport in the area
- (d) The level of satisfaction you have in life

[1]

14. Progression is an important principle of fitness training.

Which one of the following shows the principle of progression?

- (a) Doing more repetitions of the same weight in strength training
- (b) Making sure you take enough rest intervals in circuit training
- (c) Varying the types of training you follow in interval training
- (d) Making sure the training is specific in plyometric training

[1]

15. Which one of the following is an example of a test protocol when assessing the body's readiness for exercise?
- (a) Using a grip dynamometer to test for strength
  - (b) Measuring leg length in the sit and reach test for flexibility
  - (c) Checking that the distance is exactly 30 metres in a speed test
  - (d) Following a fitness training programme
- [1]**

16. A performer regularly uses fartlek training to maintain a good level of fitness.  
Explain **three** benefits of using fartlek training for a performer.

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**[3]**

17. Using examples, describe different ways in which you could assess a young person's health and well-being.

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**[3]**

18. Describe what dietary advice should be given to a player taking part in a rugby seven-a-side tournament that requires them to play five games in a day.

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[2]

19. Increased flexibility can help to improve performance.

a) State what is meant by the term 'flexibility'.

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[1]

b) Using an example from a named physical activity, explain how increased flexibility can help to improve performance.

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[2]

20. Describe the FITT principle of training.

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.....[2]

Explain how the FITT principle might be used in the planning of a six week programme for:

- (i) a male aged 40 who has not taken part in a great deal of physical activity for some time and is trying to improve his general fitness;

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..... [2]

20 marks

## Section C – Socio-Cultural Issues & Sports Psychology

Answer all questions

21. Which one of the following shows that technology can be a reason for non-participation in physical activity?

- (a) The use of specialised swim suits for competition
- (b) The use of video technology to ensure accurate referee decisions
- (c) The use of video games by young people
- (d) The use of heart rate monitoring equipment

[1]

22. The SMART Principle refers to effective goal setting in physical activities.

Which one of the following does SMART represent?

- (a) Special; Meaningful; Achievable; Realistic; Tedium
- (b) Specific; Measurable; Achievable; Realistic; Time-phased
- (c) Sustainable; Measurable; Agreed; Recorded; Time-phased
- (d) Sensible; Meaningful; Agreed; Recorded; Tedium

[1]

23. Which one of the following is an example of a national governing body?

- (a) The Lawn Tennis Association
- (b) The International Olympic Committee
- (c) The David Lloyd Leisure Group
- (d) The Local Authority

[1]

24. Which one of the following is an example of an effect of blood doping?

- (a) An increase in the number of red blood cells in the body
- (b) A decrease in oxygen uptake in muscles
- (c) A decrease in the likelihood of blood infections
- (d) An increase in the temperature of muscles

[1]





Additional Answer Space

A series of 25 horizontal dotted lines providing space for writing answers.

