



## ACSEP Entrance Examination Information Sheet

Readers should consult the ACSEP Entrance Examination Policy available on the ACSEP website. Information in the policy prevails any information provided through other channels. For more information, contact the ACSEP by emailing [nationaloffice@acsep.org.au](mailto:nationaloffice@acsep.org.au).

### What should I study?

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A significant knowledge base in Basic Sciences, as they apply to Sport and Exercise Medicine, is required for success in the examination.

The following topics and suggested readings are a guide only:

#### Anatomy:

- General concepts of regional anatomy
- All facets of upper limb anatomy
- All facets of lower limb anatomy
- Thorax – the body wall, the thoracic wall, the thoracic cavity, the superior mediastinum,
- Thoracic osteology
- Abdomen/Pelvis – the anterior and posterior abdominal walls, the pelvic cavity, the urogenital region, the pelvic joints and ligaments, the lumbar and sacral plexuses, pelvic osteology
- Head and Neck – the sternocleidomastoid muscle, the posterior triangle of the neck, the pre-vertebral region, the root of the neck, the cervical plexus
- Spine – the vertebral column, vertebral osteology, the spinal cord

Recommended reading: **Last's Anatomy: Regional and Applied Revised 9<sup>th</sup> Edition** by McMinn.

#### General Pathology:

- Cell injury, death and adaptation
- Acute and chronic inflammation
- Tissue repair
- Hemodynamic disorders, thrombosis and shock
- Normal immune responses
- Immune Hypersensitivity and Autoimmune diseases
- Injury by: mechanical trauma, therapeutic drugs, heat/cold, ionizing radiation
- Nutritional diseases
- The musculoskeletal system.
- Primary diseases of myelin
- Diseases of the peripheral nervous system

Recommended reading: **Robbins Basic Pathology** by Kumar, Abbas et al.

#### General Physiology:

- Cellular and molecular basis of medical physiology
- Physiology of nerve and muscle cells



- Control of posture and movement
- Physiological mechanisms of pain
- Autonomic nervous function
- Cardiovascular physiology
- Respiratory physiology
- Renal physiology

Recommended reading:

1. **Ganong's Review of Medical Physiology** by Barrett, Barman et al.
2. **Guyton and Hall Textbook of Medical Physiology** by Hall.

### Exercise Physiology:

- Testing methods and nomenclature in exercise physiology
- Skeletal muscle structure, function, control and metabolism at rest and during exercise
- Hormonal regulation at rest and during exercise
- Energy expenditure during exercise including concepts in fatigue
- The cardiovascular system during exercise
- The respiratory system during exercise including Boyle's and Henry's laws
- Cardiorespiratory responses to exercise
- Exercise training methods and application
- Environmental influences on exercise
- Optimisation of exercise performance including nutrition, training and ergogenic aids
- Children, aging and sex difference in sport and exercise

Recommended reading:

1. **Physiology of Sport and Exercise** by Kenney, Wilmore and Costill
2. **Exercise physiology: Nutrition, Energy and Human Performance** by McArdle, Katch and Katch

### How is the Entrance Examination structured?

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The examination is held in two parts for most candidates (Paper A and Paper B). Partial exemptions for examination parts are available if candidates have passed RACS, RACP or ACEM entrance examinations.

**Table 1: Indicative structure of the Entrance Examination.**

Paper	Duration	Format	Assessed Content
Paper A – Anatomy <sup>a</sup>	2.5 hours	100 MCQs	Anatomy with an emphasis on functional and musculoskeletal anatomy
Paper B – Physiology <sup>a</sup>	2.5 hours	100 MCQs	General physiology, exercise physiology and pathology (including immunology)



<b>Paper C - Exercise Physiology<sup>b</sup></b>	1 hour	40 MCQs	Specific to exercise physiology
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- (a) Both Paper A and Paper B are to be attempted in the candidate's first sitting.  
(b) Paper C is only available to candidates who have successfully applied for an exemption based on completion of specific entrance examinations administered by other specific Specialist Medical Colleges.

Examination exemptions are outlined in Table 2.

**Table 2: Entrance Examination paper requirements.**

		Part A – Anatomy	Part B – Physiology	Part C – Exercise Physiology
	<b>Standard Pathway</b>	✓	✓	X
<b>Partial Exemption Pathway</b> <i>Has passed these College's equivalent Entrance Examination within the last 10 years</i>	<b>RACS</b>	X	X	✓
	<b>RACP</b>	✓	X	✓
	<b>ACEM</b>	✓	X	✓

✓ = must sit this paper; X = exempt from sitting this paper.

### **How is the Entrance Examination conducted?**

The Entrance Examination is held twice per year, usually in March and July on a Saturday, with dates published on the ACSEP website as soon as practicable.

The examination is held online with an external examination moderation company. The examination moderation company host the examination platform and invigilate the exam remotely. Candidates are responsible for providing technology required to sit the exam and be invigilated remotely (e.g., a computer with a camera, stable internet connection, a suitable environment in which to sit the examination). The examination moderation company communicate all requirements to candidates after the examination application close date and ahead of the examination. This will provide opportunities to test technology and familiarise candidates with examination process.

The examination is held in the approximate timeframes:

- Paper A – Anatomy 9:30am – 12:00pm AEST/AEDT (2.5 hours)
- Break (1 hour)
- Paper B – Physiology, 1:00pm – 3:30pm AEST/AEDT (2.5 hours)
- Paper C – Exercise Physiology, 1:00pm – 2:00pm AEST/AEDT (1 hour)

### **How are the multiple choice questions formatted?**

All questions require the candidate to choose a single most correct completion or answer from five options (A, B, C, D, E). Negative marking is not used.

Examples of this question type are shown below.



1. Which of the following statements about the sciatic nerve is correct?
  - a. It always emerges from below the piriformis muscle
  - b. It passes vertically over the anterior aspect of the obturator internus
  - c. It is crossed in the thigh posteriorly by the long head of biceps
  - d. It is completely made up of nerve fibres from the L5, S1, S2 and S3 levels
  - e. It does not contact any bony structures in the buttock

*(Correct response is C)*

2. In physiological measurements, mixed venous blood is sampled from the:
  - a. Superior vena cava
  - b. Inferior vena cava
  - c. Right atrium
  - d. Pulmonary vein
  - e. Pulmonary artery

*(Correct response is E)*

3. What is the nerve supply of the deltoid muscle?
  - a. Suprascapular nerve
  - b. Axillary nerve
  - c. Musculocutaneous nerve
  - d. Accessory spinal nerve
  - e. Lateral pectoral nerve

*(Correct response is B)*

4. Cell membranes:
  - a. Are freely permeable to electrolytes but not to proteins
  - b. Contain relatively few protein molecules
  - c. Contain many carbohydrate molecules
  - d. Have variable protein contents depending on their location in the cell
  - e. Have a stable composition throughout the life of the cell

*(Correct response is D)*

### **What if I have passed one of the Entrance Examination papers before?**

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If a candidate has passed one of the Entrance Examination papers in a previous attempt at the examination, they only have to sit the paper they have not yet passed.

### **Are there practice examinations available?**

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There are no practice examinations available.

### **When will the results be available?**

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Results will be available within 21 days of the examination date and will be sent to candidates via email.

### **If I pass the Entrance Examination but am unsuccessful at getting onto the Training Program, do I need to re-sit the Entrance Examination?**

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No, your result can be used for future Training Program application years. Entrance Examination paper pass results can be used to meet Training Program eligibility criteria within 10 calendar years of successfully passing all papers of the Entrance Examination.

