

ACSEP PART 1 (ENTRANCE) EXAMINATION INFORMATION FOR APPLICANTS

The purpose of the Part 1 (Entrance) Examination is to assess whether the examinee has an appropriate level of knowledge in the basic sciences to undertake training in the specialty of Sport and Exercise Medicine within the ACSEP Training Program. Candidates are eligible to sit the Part 1 Exam at any time following attainment of their MBBS or equivalent.

In 2016, the ACSEP transitioned to delivering their Part 1 Exams via electronic format. The computer-based exams are administered by Excel Psychological and Educational Consultancy (EPEC), and are available in Australia and New Zealand. Computer-based exam offers many benefits including:

- Improved exam security
- Added functionality for candidates with the ability to quickly change and edit responses and flag questions for review
- Improved accuracy of responses for candidates with the ability to limit transcription errors which can lead to double responses and / or missing responses to some questions when exams are in a paper-and-pencil format

Am I eligible to sit the Entry Exam?

To be eligible to sit the Exam, candidates must:

- have successfully completed an MBBS or equivalent.
- be an Australian or New Zealand Resident/Citizen
- have medical registration to practice in Australia or New Zealand

How often is the exam held?

The Exam is held twice a year on the 1st Saturday of March and August

	Applications Open	Applications Close	
March Sitting	1st September	30 th November	
August Sitting	1st February	30 th April	

Where is the exam held?

Sittings of the ACSEP Part 1 (Entry) Examination are held at Clifton's Examination Centres in Australia and New Zealand. The ACSEP alternates between the centres in Sydney and Melbourne with additional sittings available in Perth and Auckland if candidate numbers permit. Candidates will be notified of the available venues within two weeks of the closing of applications and given the opportunity to state a preference for the location they wish to sit the exam. Note that candidates are responsible for the cost of all associated travel to and from the exam.



What is the format of the exam?

The Part 1 (Entrance) Exam consists of two separate examinations. The exam will be delivered in an electronic format within an online test environment. Each part is comprised of 100 multiple choice questions;

- **Part A** Anatomy (2.5 hours) consists of anatomy questions with an emphasis on functional and musculoskeletal anatomy
- **Part B** Physiology (2.5 hours) consists of questions covering general physiology, exercise physiology and pathology General Pathology (*including immunology*)
- Exercise Physiology (1 hour)

Both Paper A and Paper B <u>must</u> be attempted in the first sitting. Where a candidate has passed only one paper of the Part 1 Exam, this pass can be carried forward until such time as a pass in the second paper is achieved. A candidate must successfully pass both Paper A and Paper B of the Part 1 Exam to be eligible to apply for selection into the College training program.

Paper A and Paper B contain 100 MCQs each, and have a time limit of two hours and thirty minutes for both Paper A and Paper B, and 40 MCQs to answer in one hour for Paper C. You should attempt every question; marks will not be deducted for incorrect answers. You can flag questions and return to them easily once you have viewed all exam questions.

Each MCQ will have five possible answer options. There is only one correct answer for each MCQ, and questions which are not attempted, will be scored zero.

Exam Application

In order to sit the Part 1 exam, each candidate is required to complete an application form, and submit this before the nominated closing date - see ACSEP website www.acsep.org.au.

Am I eligible for any Recognition of Prior Learning (RPL)?

Candidates holding the FRACS, FRACP or FACEM (less than 10 years old) are eligible for RPL, or exemptions from the Part 1 (Entry) Exam.

The table below indicates which papers candidates are required to complete based on recognition of prior learning (RPL)

	Part A	Part B	Exercise Physiology*
No RPL	√	✓	
FRACS			√
FRACP	√		√
FACEM	✓		✓

^{*} The Exercise Physiology exam is 1 hour in duration and comprises 40 multiple choice questions

What is the duration of the Exam?

The Exam is 5 hours in total:	Part A	9: <mark>30am</mark> - 12:00pm	(2.5 hours)

1:00pm - 3:30pm

(2.5 hours)

OR

Part B

Exercise Physiology (RPL only) 1:00pm - 2:00pm (1 hour)

What is the cost of the Exam?

The cost of the Part 1 (Entry) Exam is \$1900. All **prices** are subject to **change** without notice at any time.

If you are required to sit the Exercise Physiology exam only (FRACS RPL), the cost is \$950.

Candidates will be invoiced for the cost of the Exam the day after Applications for Part 1 Exam close and will be required to pay the outstanding amount within 2 weeks of this date. Those who do not settle the invoice amount in the time allocated will forfeit their Application.

What if I would like to defer

The ACSEP does not accept Part 1 (Entrance) exam deferrals. If the candidate decides to withdraw outside 8 weeks prior to the exam their exam fee will be refunded to them in full. If a candidate withdraws inside the 8 weeks prior to the exam, their refund will be subject to the fees below.

What if I choose to withdraw from the Exam?

Candidates who withdraw their Application for Entry Examination will be charged a \$350 non-refundable Administrative Fee. The following refunds apply:

- If withdrawing outside of 8 weeks prior to the examination, the candidate will receive their examination fee back in less the Administrative fee of \$350.
- If withdrawing within 8 weeks prior to the examination, a penalty of 50% of the examination fee will be charged in addition to the Administrative Fee.
- If withdrawing within 4 weeks of the examination before the examination, no refund will be made.

Candidates who fail to appear for the Exam will forfeit their fees unless, because of exceptional circumstances, the Board of Censors directs otherwise. Further supportive documentation may be requested in assessment of exceptional circumstances. Any refund applicable will relate to the date the form is received by the National Office. The Part 1 Examination Withdrawal Form can be downloaded from the College website. Note that if the payment of withdrawals fees are not made, the candidate will not have the opportunity to apply to the College in the future.

What should I consider in preparation for the Exam?

A significant knowledge base in Sport and Exercise Medicine Basic Sciences is required for success in the examination. The following domains are examined: Anatomy, Pathology, General Physiology and Exercise Physiology. Within each domain there are a number of specified subject areas, which are listed below.

Note that it is not expected that candidates will have studied age, sex or disability considerations in sport and exercise, nor will candidates be required to have studied the application of exercise prescription for chronic disease states.

Recommended readings are given, however broad revision and understanding of all areas is encouraged.

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 by Sinnatamby



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: **Ganongs Review of Medical Physiology** by Barrett, Barman et al 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



Recommended readings:

- 1. **Physiology of Sport and Exercise** by Kenney, Wilmore and Costill
- 2. **Exercise physiology: Nutrition, Energy and Human Performance** by McArdle, Katch and Katch
- 3. Exercise physiology: Theory and Application to Fitness and Performance by Powers and Howley

What do the multiple choice questions look like?

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

Examples of this question type

- 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 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)



Administration of the Exam

Candidates must arrive at the test centre at least 30 minutes before the scheduled time of their exam. Allow for possible delays with public transport or traffic. Once you arrive at the test centre, the examination supervisor will take you through the admissions process:

a. Identification requirements:

You must bring with you and present one of the following forms of identification listed below when you arrive at the test centre:

- Government-issued driver's license, including temporary licenses with all required elements
- Driver's license
- Learner's permit (plastic card only with photo and signature)
- National, state, or country identification card
- Passport
- Passport cards
- Military identification
- Alien registration card (Green Card, Permanent Resident Visa)
- Government-issued local language identification (plastic card with photo and signature)
- Employee identification

Your identification will be checked before you enter the examination room to ensure it is valid (i.e. that is, not expired and matches your enrolment information). The identification must be current, legible and bear your name exactly as you provided when you enrolled with ACSEP and made your exam appointment. It must also include a recent, recognisable photograph, your signature and date of birth. If you cannot meet these requirements, you must contact National Office.

b. Personal Items:

You will not be allowed to take personal belongings to your desk in the examination room. Some examples of items which are not allowed at your desk include;

- Some items of clothing such as jackets and jewellery
- Food and drinks (including water) if you need to access water or medicines during the exam, you may take an unscheduled break by raising your hand to get the attention of the exam supervisor. The exam timer will not stop during unscheduled breaks.
- Paper and pens (note-taking paper and a pen will be provided for use as scratch paper on your desk, and must be handed to the examination supervisor at the end of the exam session)
- Mobile phones, Tablets, iPADs and PDAs
- Purses and wallets
- Watches and bags



c. Entering the examination room:

When you've been admitted to the examination room, the examination supervisor will read out the announcements. During this time, you are not allowed to access your exam.

At the end of the announcements the supervisor will advise when you can commence the exam. As soon as you commence the exam, your exam clock in the top right hand corner of the screen will begin to count down. If you need to take a break, you will be accompanied by an examination supervisor, and the exam timer will not be stopped (i.e. all breaks will be in your own exam time).

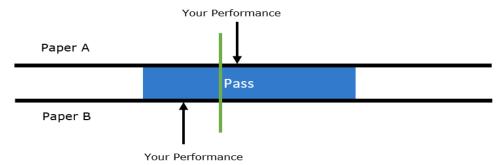
We encourage you to familiarise yourself with how to navigate through the computer-based exam before the day of your exam by clicking <u>here</u> to complete a short practice exam.

Examination Results

Candidates are advised of their results within 2-4 weeks from the sitting of the Exam. These results are released by email and accompanied by an official letter.

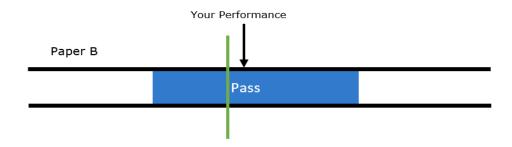
For the Part 1 (Entrance) Exam, you will receive your results expressed as a **scaled score** and a **result** (Pass or Fail) for each Paper from National Office.

On the scale, the pass mark (cut-score) for all ACSEP exams is set at 500 for each Paper. This is represented by the green line in the Figure below. The minimum and the maximum possible scores in the exam are shown by the blue shaded area, and are set at 200 and 800 respectively. Your performance in each Paper is indicated by an arrow. If you sat both Paper A and Paper B, your results will be in the following format:





If you sat only Paper B, you might receive your results in the following format (likewise if you only sat Paper A or Paper C):



You will receive a "Pass" if your result in a Paper is 500 or above. You will receive a "Fail" if your result in a Paper is below 500, and you will receive an "N/A" if you did not sit that Paper in the current examination period.

The analysis of candidates' performance will be completed by an independent organisation, Excel Psychological and Educational Consultancy (EPEC) and ratified and confirmed by the Board of Censors of the ACSEP. The analysis will be undertaken in the Rasch measurement framework, a well-established measurement theory implemented by medical councils and colleges and high stakes examination bodies around the world.

Understanding your scaled score

The use of a scaled score in the Part 1 (Entrance) examination enables exam results across multiple versions of the Part 1 exam to be placed on the same scale. This accounts for the level of difficulty of each exam paper sat, irrespective of the year or series, and allows for a fair, equivalent score to be provided to each candidate. The cut-score of 500 on the scale represents the level of performance to pass a Paper as confirmed by the Board of Censors and ensures that this standard is maintained over exams – irrespective of differences between exam papers and/or cohorts of candidates.

The scaled score reflects performance more accurately than a percentage since the percentage score does not take into account the level of difficulty of an individual exam version. As such, the percentage of questions candidates answered correctly will not be reported.

It is important to note that your scaled score is not an indication of how you performed on your exam against your peers. It's an accurate representation of your individual exam performance against the standard to pass the exam.

Past exam papers

Due to the secure nature of the Part 1 exam and the process adopted by the College in establishing pass standards, questions and answers from past exams are not released or available for viewing.



What if you are not satisfied with your result

Sometimes, candidates do not perform as well as they had hoped in either one Paper of the exam, or in all the Papers they sat in the exam. It is important to remember in this instance that through implementing Rasch measurement theory, your performance is independent of the cohort and the difficulty of the exam you sat, but relative to the competence standard established by the Board of Censors. The scaled score indicates your performance more accurately than a percentage, regardless of the exam version you sat, and when you sat the exam.

Where a candidate has passed only one Paper of the Part 1 exam, this pass can be carried forward until such time as a pass in the second paper is achieved. Candidates can apply for the next Part 1 examination (before the nominated closing date) if they would like to re-sit one or both Papers of the Part 1 exam. Candidates will be required to pay the full Examination Fee.

Applying for the ACSEP Training Program

If you have passed successfully and you meet all the <u>eligibility requirements</u>, the next step is to apply for the ACSEP Training Program. Successful candidates are advised of the process for applying for selection on to the Training Program.

Applications for the Training Program open in July each year and can be made via the ACSEP website.