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# Saudi Medical Licensing Examination

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SMLE

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Saudi Commission for Health  
Specialties (2015)

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# Saudi Medical Licensing Exam

## I Introduction

Based on the decision of the board of trustees No(7/A/36) dated 13/06/1436 Graduation from a Medical College confers the right of the graduate to practice in the internship year, and to practice thereafter must have a Saudi medical license granted by obtaining a passing score in the Saudi Medical Licensing Exam.

## II Objectives

- a. Determine sufficient competence of those seeking a license for independent practice after the internship year.
- b. Used for the Saudi Board program admission process to assess the readiness of the graduate to proceed to resident training.
- c. Determine the suitability of a candidate to be trained as a future specialist-consultant capable of practice in his/her specialty at the very highest competency level.
- d. Determine that all accredited Medical Colleges are graduating candidates who meet the minimum standards for safe practice<sup>1</sup>.
- e. Evaluate the standards achieved by the Medical Colleges in which a candidate received their primary medical degree.
- f. Screen the candidates applying to a specialty using only norm referenced standards<sup>2</sup> as a means for selection.
- g. Benchmark Saudi graduates with international standards.

## III Eligibility

- a. Recognized primary degree from an accredited Medical College<sup>3</sup>.
- b. Commenced training in the internship year.
- c. Completion of an application form for the relevant exam.

## IV General Rules

- a. The Saudi Medical Licensing Examination will be available throughout the year as computer based tests at centers prescribed by the SCFHS.
- b. All eligible candidates may take a Saudi Licensing Examination FOUR (4) times in one year.
- c. SCFHS classification and registration rules and regulations shall apply to candidates who fail the licensing exam for two years after their graduation date.
- d. After passing the examination each candidate is eligible for two further attempts to improve their mark for the purpose of attaining a better score for residency selection.

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<sup>1</sup> Minimum standards for safe practice shall be determined by a framework of competencies issued by the Saudi Deans' Committee with periodic revision. The reports of these examinations shall remain private and confidential unless the SCFHS decides otherwise.

<sup>2</sup> Norm referenced standards are those that yield an estimate of the position of the tested individual in a predefined population,

<sup>3</sup> Only from a Ministry of Education accredited school in the relevant health science.

## **V Examination Format**

- a. The format shall be at least one hundred and fifty A-type SBA multiple-choice questions<sup>4</sup>, single best answer of four options.
- b. The exam shall contain K1 cognitive level questions (recall and comprehension) and K2, usually delivered as questions with scenarios (interpretation, analysis, decision making, reasoning and problem solving).
- c. The exam will have questions from the basic medical sciences, including anatomy, physiology, pathology, microbiology, pharmacology, behavioural science and biochemistry. These questions are related to the basic science underpinning medical practice and will represent up to 20% of the exam.
- d. The duration of the paper with 150 questions shall be no more than three hours.

## **VI Passing Score**

- a. The cut score for the SMLE is 50%.
- b. In the event that there has been an aberrant result the Department of Medical Education and Postgraduate Studies of the SCFHS shall be asked to resolve the issue.
- c. Each training center may set their own selection requirements and standards for admission into their residency training program according to the results obtained in the licensing examination.
- d. Examination results will be printed for each individual candidate with a section score report as feedback.

## **VII Validity**

- a. A passing grade allows a candidate to practice as a general practitioner
- b. A passing grade allows a candidate to apply for Saudi Board residency programs within five years of the passing date, after which time the licensing examination must be taken again and the above rules are re-applied.
- c. After passing the examination each candidate is eligible for two further attempts to improve their mark for the purpose of attaining a better score for residency selection.

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<sup>4</sup> SBA, single best answer multiple-choice question.

## Test Blueprint for Saudi Medical Licensing Exam

SECTION	Item Count	Basic Medical Science	Clinical Presentation	Diagnosis	Investigation	Management	Prevention
Anaesthesia and Critical Care	5						
Community Medicine	8						
Emergency Medicine	10						
Family Medicine	10						
Internal Medicine	24						
Surgery	24						
Obstetrics and Gynaecology	19						
Paediatrics	24						
Psychiatry	8						
ENT	5						
Ophthalmology	5						
Dermatology	5						
Research	3						
<b>TOTAL</b>	150						

## Suggested Reference Books

Medicine	Kumar P and Clark M (2012). Clinical Medicine. 7th ed. Edinburgh: Elsevier Saunders.
General Surgery	Becker J, Stucchi A (2005). Essentials of Surgery. Saunders, Elsevier, Churchill Livingstone, UK.
Community Medicine	Bonita R, Beaglehole R, Kjellstrom T (2007). Basic Epidemiology. World Health Organisation. 2nd edition. World Health Organisation.
Research Methodology & Biostatistics	Olsen B, Laake P, Benestad H. (2007). Research Methodology in the Medical and Biological Sciences. Academic Press, New York, USA.
Medical Radiology	Rockall AG, Hatrick A, Armstrong P, Wastie M (2013). Diagnostic Imaging, 7th Edition. Wiley-Blackwell, UK.
Obstetrics and Gynecology	Oats J., Abraham S (2010). Llewellyn-Jones Fundamentals of Obstetrics and Gynecology, 9th edition, Elsevier Mosby.
Primary Health Care	Simon C, Van Dorp F, Everitt H (2014). Oxford Handbook of General Practice, Fourth Edition, OUP Oxford.
Orthopaedics	Solomon L, Apley GA (2005). Concise System of Orthopaedics and Fractures, Third Edition, Morgan Kaufmann Publishers.
Psychiatry	Stead L, Kaufman M, Yanofski J (2011). First Aid for the Psychiatry Clerkship, Third Edition, McGraw-Hill Medical.
Otolaryngology	Becker W, Naumann H, Pfaltz C (1994). Ear, Nose, and Throat Diseases: A Pocket Reference, 2nd Edition, Thieme.
Ophthalmology	Richard A Harper (2010). Basic Ophthalmology for Medical Students and Primary Care Residents, 9th Edition, American Academy of Ophthalmology.
Dermatology	Mackie RM (2003). Clinical Dermatology: An Oxford Core Text, Fifth Edition, OUP Oxford.
Paediatrics	Lissauer T and Clayden G (2011). Illustrated Textbook of Paediatrics; 4th Edition. Elsevier, Mosby, UK
Critical Care	Paul L Marino. The ICU Book (2013). Wolters Kluwer, Lippincott Williams and Wilkins
Emergency Medicine	Judith E. Tintinalli, J. Stephan Stapczynski, O. John Ma (2010). Tintinalli's Emergency Medicine: A Comprehensive Study Guide, Seventh Edition. The American College of Emergency Physicians
Anaesthesia	Patrick J. Sullivan (Editor) (2013). Ottawa Anesthesia Primer. Echo Book Publishing.

## Example Questions

### Examples of SMLE questions testing higher cognition

#### Q1

A 35 year old car driver crashed into a concrete block without a safety belt on. Thirty minutes after and on the way by ambulance to the hospital he begins to become breathless. On administration of 100% oxygen there is not much improvement in this condition. On arrival at the Emergency Department he has lost consciousness and appears cyanosed with markedly distended jugular veins.

Blood pressure	80/40 mmHg
Heart rate	120 /min
Respiratory rate	34 /min
Temperature	36.6° C
Oxygen saturation	60% on room air

What immediate action should be taken?

- A. Intubation and 100% oxygen
- B. Rapid infusion of crystalloid
- C. Needle decompression
- D. IV 0.2 mg adrenaline

#### Q2

A mother is running after her child as he runs into the road. Almost as she reaches the road a car comes by and she must stop suddenly to avoid being hit by the car. As she stops she falls forwards and is unable to get up and has to be carried by stretcher into an ambulance. On admission to the Emergency Department her right knee is swollen and twice its normal size.

What structure of the knee is most likely to have been injured?

- A. Lateral collateral ligament
- B. Infra patella ligament
- C. Anterior cruciate
- D. Medial meniscus

#### Q3

A nine year-old boy with sickle cell disease has become increasingly tired but now says he is having right hypochondrial pain after meals. He has had multiple blood transfusions.

What should be the first investigation?

- A. CT abdomen
- B. Ultrasound
- C. Plain X-ray
- D. MRI scan

**Q4**

A fifteen year-old boy is very concerned that he may be developing the same disease as his father who died aged 37 years old of colon cancer. The boy has noticed he has developed unexpected episodes of diarrhoea and lower abdominal pain. These patients also develop other comorbidities.

Which of the following would be a typical example?

- A. Astrocytoma
- B. Osteosarcoma
- C. Retinoblastoma
- D. Duodenal carcinoma

**Q5**

A 26 year-old man presented to the Outpatient Department with the history of frequent chest pain for one month. The pain is associated with exercise and relieved by rest. Both his parents have elevated serum cholesterol and serum LDL levels. On examination, there is no clubbing or palmar erythema. Xanthomas are present on the elbows and knees and have been there since he was eleven years old (see lab results).

Test	Result	Normal Values
Total Cholesterol	9.8	<5.1 mmol/L
Triglycerides	2.8	<2.16 mmol/L
HDL	1.5	0.8–1.8 mmol/L
LDL (cholesterol)	7.9	<4.0 mmol/L

Which of the following familial conditions is this most likely to be?

- A. Apoprotein CII deficiency
- B. Hypercholesterolaemia
- C. Hyperchylomicronemia
- D. Hypertriglyceridemia

**Examples of SMLE questions testing simple recall of memorised fact**

**Q1**

Which of the following is most likely to cause muscle weakness in children?

- A. Hypokalemia
- B. Iron overload
- C. Hyponatremia
- D. Severe anaemia

**Q2**

Which of the following is most typical of pericarditis?

- A. ST elevation and PR depression
- B. Widening of QRS complex
- C. Absent T waves
- D. Atrial flutter

**Q3**

Which of the following is indicative of respiratory alkalosis?

	<b>pH</b>	<b>PaCO<sub>2</sub></b>	<b>HCO<sub>3</sub></b>
A.	↓	↑	↑
B.	↑	↓	↓
C.	↓	↑	↓
D.	↑	↓	↑

**Q4**

Which of the following is the physiological cause of iron loss?

- A. Menorrhagia
- B. Peptic ulcer
- C. Haematuria
- D. Pregnancy

**Q5**

A three year-old child is noted to have a microcytic anemia. Haemoglobin electrophoresis demonstrated increased concentration of Hemoglobin A2.

What is the most likely diagnosis?

- A. Iron deficiency
- B. G6PD deficiency
- C. Sickle cell anemia
- D. B- thalassemia trait

