Structure and content of the Part 1 MRCOG examination

From March 2012, there will be some significant changes to both the syllabus and examination style for the Part 1 MRCOG examination. These changes have been ratified by the General Medical Council and aim to produce an examination that is more relevant to the 21st century trainee aspiring to have a career in obstetrics and gynaecology.

Essentially, the changes to the Part 1 MRCOG entail a shift of emphasis to ensure that the examination continues to provide a relevant foundation for the continuation of learning and the development objectives of the specialty training programme. This change has required a realignment of the proportional contribution of existing areas of the Part 1 MRCOG syllabus and a revised blueprinting exercise that references explicitly the modules of the core curriculum against the existing global question domains. The modification of the existing examination format will ensure that this revised syllabus coverage can be tested appropriately to reflect the new desired emphasis of the Part 1 MRCP.

The new Part 1 MRCOG contains questions that are clearly relevant to an applied sciences examination in obstetrics and gynaecology, with less of a focus on de-contextualised fundamental science. In essence, the new examination still requires candidates to have a robust understanding of fundamental science, both physical and biomedical, which will serve as a foundation on which to build subsequent clinical knowledge. The major difference from the previous examination is that knowledge is tested in a more clinical context to ensure candidates have the appropriate knowledge to function as specialty trainees on a daily basis. This knowledge is tested using a mixture of single best answer questions (SBAs) and true/false multiple choice questions (MCQs).
Rationale for single best answer questions

Until March 2007, the Part 1 MRCOG examination consisted of two papers each containing 300 true/false MCQs. Extended matching questions (EMQs) were then introduced, with each paper containing 20 EMQs and 240 MCQs. EMQs have been demonstrated to test understanding and application of knowledge better than MCQs and are certainly more reliable individually in differentiating between good and poor candidates. Although MCQ papers produce reliable assessments by testing a wide range of knowledge in a relatively short time period, there is some concern that they merely test recall of facts without context rather than the candidate’s understanding of a given subject. The obvious corollary, therefore, is that one could ask: if EMQs are a good assessment tool, then why change?

The advantage of SBAs over EMQs is that they assess understanding and knowhow rather than mere factual knowledge, but in a shorter period of time. As such, more SBAs can be included within an examination, allowing a wider number of subject areas to be tested without compromising the applied nature of the knowledge being assessed. This also allows the number of MCQs to be reduced so that the focus of the examination is understanding rather than factual recall. It will also reduce the ‘guess’ element to the examination: the chances of a ‘wild guess’ being correct in an MCQ question is 50%, whereas in an SBA it is only 20%. As such, SBAs combine the benefits of both EMQs (testing of more complex knowledge) and MCQs (increased assessment scope within a given time period). Indeed, the SBA format is being used increasingly by other medical royal colleges as well as by the General Medical Council.

SBAs for the Part 1 MRCOG are written by members of the Part 1 MRCOG Sub-Committee. New questions are scrutinised carefully by the whole committee to ensure they pass a number of criteria: they are clinically relevant; the written English is of the highest standard, thereby avoiding ambiguity; and one answer is definitely the correct answer.
Structure of single best answer questions

Each SBA consists of three components:

- a stem (a clinical or scientific scenario)
- a ‘lead-in’ or question asking which is the single best answer
- five options, of which one is clearly the correct answer.

All questions are checked to ensure they pass the ‘cover test’. This means that a good candidate should be able to cover the option list and, just by reading the stem, know what the correct answer is.

The Part 1 MRCOG syllabus

The syllabus has been mapped to the 19 modules of the core curriculum; note that modules 2, 4 and 19 are not examined in the Part 1 examination. A blueprinting matrix has also been developed that shows how the modules and the subject domains are related (Appendix 1).

There are now 14 subject domains that are tested in the examination, which is a change from the previous diet. There are two important new additions: ‘data interpretation’ and ‘clinical management’. These sections cover aspects of interpretation of standard clinical data and laboratory analyses, and assess the candidate’s understanding of the clinical management of common obstetric and gynaecological problems encountered at this level of training.

The most up-to-date details of the syllabus can be found on the RCOG website, which candidates are strongly advised to consult.

Structure of the Part 1 MRCOG examination

The examination is divided into two papers. Each paper contains 60 SBAs and 30 five-part true/false MCQs. The weighting for the SBA and true/false MCQ component of each paper is the same: 150 marks are available for each section. The time allowed to fully complete each paper is 2 hours 30 minutes (5 hours total examining time). Contrast this to the previous Part 1 MRCOG examination:
Make sure that you leave enough time to fully complete the answer sheets, as this has to be done within the time frame of the examination. No time will be allowed to transfer answers if these have been written in draft form on the question paper.

Figure 1 demonstrates the approximate distribution of marks for each of the subject domains in the two papers, although candidates are advised that the breakdown will vary from sitting to sitting.

![Pie chart showing distribution of marks by subject domain in Paper 1](image)

![Pie chart showing distribution of marks by subject domain in Paper 2](image)

**Figure 1** Distribution of marks by subject domain in papers 1 and 2
The blueprinting matrix that has been developed by the College is shown in Appendix 1. This shows in some detail how the modules and domains are inter-related and the subject areas that need to be covered in order to be properly prepared for the examination.

Examples of how different SBAs fit into the various areas of the blueprinting matrix are given in chapter 3.

**Approach to answering single best answer questions**

In many ways, the cover test is a good approach to answering SBAs, as the option lists may include many distractors which aim to deflect the uncertain candidate. It is often best, therefore, to cover over the options, read the stem and deduce what you think the correct answer is before looking at the option list. Obviously, if the answer you come up with is not on the list, there is clearly something wrong with your knowledge! However, if the answer you come up with is on the list, that is most likely to be the correct response. It is better to go with your first hunch and not be distracted by possible incorrect answers in the option list.
2 | Part 1 MRCOG blueprinting matrix, syllabus topics and example questions for paper 1

This chapter and chapter 3 break down the blueprinting matrix into individual components and provide example questions where appropriate.

Not all module and domain intersections on the matrix have a relevant syllabus subject area; for example, there are no syllabus topics for the Part 1 examination combining core module 3 (IT, governance and research) and the embryology domain. On the other hand, other syllabus areas may appear on the grid more than once.

The list of syllabus topics given here is not exhaustive. Obstetrics and gynaecology is a continually evolving subject and new knowledge is appearing all the time. Likewise, the Part 1 examination is also continually evolving. It is therefore wise to always consult the RCOG website (www.rcog.org.uk) for the most up-to-date syllabus and examination information.

Answers to the questions in this chapter can be found in appendix 3.

Anatomy domain

Core modules 5–7

**SBA 1**

During a caesarean section, the rectus sheath is divided to reveal the rectus muscle. The combined aponeuroses of which muscles form the anterior component of the rectus sheath?

A. External and internal oblique  
B. External oblique and transversus abdominis  
C. Internal oblique and transversus abdominis  
D. Pyramidalis and serratus anterior  
E. Pyramidalis and transversus abdominis

_Core module 8_

**Syllabus topics:** Anatomical adaptations to pregnancy. Breast changes in pregnancy. Anatomical interpretation of fetal and maternal images from X-ray, ultrasound and magnetic resonance imaging.

**SBA 2**

The lactating breast is divided into lobules, each of which contains a lactiferous duct. Approximately how many lobules does each breast contain?

A. 1  
B. 2  
C. 5  
D. 10  
E. 20

_Core module 10_

**Syllabus topics:** Obstetric anatomy of the pelvis and abdomen. Changes during late pregnancy and in labour. Mechanism of childbirth.

**SBA 3**

What type of joint is formed at the symphysis pubis?

A. Cartilaginous  
B. Condyloid

8 SBAs for the Part 1 MRCOG
Core module 12

Syllabus topic: Structural changes in the newborn.

SBA 4
Closure of the ductus arteriosus following lung inflation shortly after birth is mediated by which vasoactive substance?

A  Bradykinin
B  Prostacyclin
C  Substance P
D  Vasopressin
E  VEGF

Core module 13

Syllabus topic: Gynaecological anatomy.

SBA 5
The uterine artery is a direct branch of which major artery in the pelvis?

A  External iliac
B  Internal iliac
C  Femoral
D  Obturator
E  Pudendal

Core modules 14–16

Syllabus topics: Anatomy of the hypothalamus and pituitary, and the male and female reproductive organs. Surgical anatomy of the pelvis and abdomen.
SBA 6
The pituitary gland sits in a small bony cavity in the skull known as…?

A Diaphragma sellae  
B Optic chiasm  
C Sella turcica  
D Sphenoid sinus  
E Third ventricle

Core module 17

Syllabus topic: Anatomical changes relevant to tumours in the female.

SBA 7
A woman with advanced cervical cancer presents to hospital with worsening left loin pain. Which structure is most likely to have become obstructed?

A Cervix  
B Ureter  
C Urethra  
D Uterine artery  
E Vagina

Core module 18

Syllabus topic: Functional anatomy of the pelvic floor, kidney and urinary tract.

SBA 8
The motor supply of the levator ani muscle is derived predominantly from which spinal segment?

A L5  
B S1  
C S2  
D S3  
E S4