This book helps candidates prepare for the DRCOG exam. The new edition now features four complete papers matching the style of the current exam, with each paper comprising:

• 30 extended matching questions
• 18 single best answer questions
• 40 multiple choice questions

Importantly, detailed explanations are given for each answer to improve understanding and references are provided to guide readers to the supporting evidence.

Written by a practising GP and a consultant in obstetrics and gynaecology who has previously examined for the DRCOG, this book provides the ideal revision guide for exam candidates.

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“Questions are very much like the real exam, and the answers are very precise. I felt prepared for the exam after going through it. In my opinion, possibly the best preparatory book in the market currently.”

“An essential book to prepare for the DRCOG examination with lots of questions and detailed explanations to aid revision, highly recommended!”

“Having studied for this exam recently I found this book incredibly helpful and better than other revision guides that I have used. The format is clear with concise explanations for all questions. A highly recommended resource for the DRCOG exam.”

“Easy to use, great for motivating you to revise. Would recommend this to anyone planning to sit the DRCOG.”

“An outstanding revision guide containing a broad range of questions appropriate to this exam. Informative yet concise answers make this book stand out. An excellent preparation for the DRCOG.”
ALSO OF INTEREST
QUESTIONS AND ANSWERS FOR THE DRCOG
SECOND EDITION

SUNEETA KOCHHAR
MBBS, MRCGP (2010), MRCS (2007), DRCOG, DFSRH
GP Principal in East Sussex

AND

PRABHA SINHA
MBBS, FRCOG, MRCPI
Consultant Obstetrician and Gynaecologist in East Sussex
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Preface

The DRCOG (Diploma of the Royal College of Obstetricians and Gynaecologists) is a knowledge-based certificate awarded following a written examination. The content is based on obstetrics and gynaecology relevant to general practice in the United Kingdom. The examination reflects common clinical scenarios encountered in general practice and includes sexual health and family planning. It does not represent a specialist qualification.

The Royal College of Obstetricians and Gynaecologists (RCOG) provide a curriculum and syllabus to aid revision for the examination. The syllabus includes modules on: Basic Clinical Skills, Basic Surgical Skills, Antenatal care, Management of Labour and Delivery, Postpartum Problems (The puerperium) including neonatal problems, Gynaecological Problems and Fertility Control (Contraception and termination of pregnancy).

The DRCOG examination is usually held twice a year, in April and October in a number of locations in the United Kingdom. The examination regulations state that candidates must hold full, limited or provisional registration with the General Medical Council. The examination may not be attempted more than 5 times. No training requirement is required to undertake the examination. As the question papers vary in difficulty the pass mark is variable; therefore there is no fixed pass rate. There is no negative marking.

The examination consists of a 3 hour written paper consisting of two 1½ hour papers. The first paper has 10 Extended Matching Questions (EMQs) each with 3 question items and 18 Single Best Answer (SBA) questions where a single answer is chosen from a list of five. It is recommended that two-thirds of the time for this paper is spent on the EMQs. Following a 15 minute break, the second paper is undertaken. The second paper consists of 40 five-part multiple choice questions (MCQs).

It is anticipated that the candidate may use this book for mock examination purposes therefore explanations are given at the end of each paper. The questions are based on common clinical scenarios and evidence-based explanations are given. The format is similar to the actual examination. It is intended that the candidate allows 3 hours to complete
each exam paper, as recommended by the RCOG. Alternatively the book may be used to practice different question styles in separate sittings to aid revision. Furthermore this book may be helpful in preparing for the MRCGP Applied Knowledge Test and for medical finals.

Since the first edition a further practice examination has been added to the original three to aid revision. The original content has been reviewed and revised to reflect current guidance and the new examination paper has been written to complement the existing material.

Good luck!

Dr Suneeta Kochhar and Miss Prabha Sinha
About the authors

Suneeta Kochhar is GP Principal at Pebsham Surgery in Bexhill-on-Sea, in East Sussex. She completed the Membership of the Royal College of General Practitioners (MRCGP) in 2010 and completed the Membership of the Royal College of Surgeons (MRCS) examination in 2007. She also has the Diploma of the Royal College of Obstetricians and Gynaecologists (DRCOG) and the Diploma of the Faculty of Sexual and Reproductive Healthcare (DFSRH). She has published numerous educational articles.

Prabha Sinha is a Consultant Obstetrician and Gynaecologist at the Conquest Hospital in St Leonards-on-Sea, in East Sussex. She is also Honorary Consultant in Fetal Medicine at Guy’s and St Thomas’ Hospitals in London. She has Fellowship of the Royal College of Obstetricians and Gynaecologists (FRCOG) and Membership of the Royal College of Physicians of Ireland (MRCPI). She is involved in postgraduate education and assessment. She has examined for the DRCOG and currently examines for the Membership of the Royal College of Obstetricians and Gynaecologists (MRCOG) as well as the GMC exam for overseas doctors. She is also a teacher on MRCOG courses nationally and internationally.
DRCOG Syllabus

The Royal College of Obstetricians and Gynaecologists (RCOG) provide a curriculum and syllabus to aid revision for the examination. The syllabus refers to a level of knowledge appropriate to a General Practitioner in the United Kingdom. The syllabus may be updated in due course and it is advised that candidates refer to the RCOG website to check for the very latest information. The modules are listed and summarized below.

Module 1: Basic clinical skills
An understanding of symptomatology in patients presenting with gynaecological and obstetric problems as well as knowledge of sexually transmitted infections and family planning is expected. An understanding of pathophysiology and its clinical significance in addition to the risks and benefits of investigations and therapeutic interventions is expected. The syllabus places an emphasis on the medico-legal as well as ethical aspects of obstetrics and gynaecology. This includes the legal status of the unborn child, medical confidentiality and consent.

Module 2: Basic surgical skills
An understanding of commonly performed surgical procedures with an awareness of risks and benefits of therapeutic intervention is important. This encompasses an awareness of pre-operative investigations, pre- and post-operative care.

Module 3: Antenatal care
Knowledge related to peri-conceptual and antenatal care as well as the maternal complications of pregnancy is expected. This includes an understanding of psychiatric issues, domestic violence and cultural sensitivity. Furthermore, understanding how common medical disorders, antenatal screening and therapeutics impact on pregnancy is relevant. Moreover, the RCOG states that an understanding of the roles of other professionals underpins teamwork and effective communication skills.

Module 4: Management of labour and delivery
Knowledge and understanding that allows initial management of intrapartum problems in a hospital and in a community setting are required. Specifically, knowledge regarding obstetric emergencies, normal
and abnormal labour, instrumental/Caesarean deliveries and obstetric anaesthesia, induction and augmentation of labour as well as assessment of fetal wellbeing is expected. Psychosocial aspects of obstetric care should be considered.

Module 5: Postpartum problems (the puerperium) including neonatal problems
Knowledge of postpartum problems and complications is expected. This includes an understanding of psychological disorders, therapeutics and management of neonatal problems which may include resuscitation.

Module 6: Gynaecological problems
This module encompasses knowledge and management skills related to urogynaecology, paediatric gynaecology, endocrine problems, pelvic pain, early pregnancy loss, investigation and management of male and female fertility problems, abnormal vaginal bleeding and sexually transmitted infections. Knowledge of malignant and premalignant conditions of the female genital tract, national screening programmes and palliative care is expected.

Module 7: Fertility control (contraception and termination of pregnancy)
Knowledge and understanding of reversible and irreversible contraceptive methods is expected, as well as termination of pregnancy. Medico-legal aspects related to abortion, consent and child protection are incorporated in this module. The RCOG state that whilst there may be conscientious objection to certain aspects of sexual and reproductive health, knowledge and understanding is expected.

Reference
Examination Committee (2007) DRCOG Syllabus. Royal College of Obstetricians and Gynaecologists
Abbreviations

AEDs  Anti-epileptic drugs
AFP  alpha-fetoprotein
APH  Antepartum haemorrhage
BMI  Body mass index
BNF  British National Formulary
BV  Bacterial vaginosis
CAH  Congenital adrenal hyperplasia
CMV  Cytomegalovirus
CS  Caesarean section
CSM  Committee on Safety of Medicines
CT  Computed tomography
CTG  Cardiotocography
CVS  Chorionic villus sampling
DDH  Developmental dysplasia of the hip
DMPA  Depot medroxyprogesterone acetate
DNA  Deoxyribonucleic acid
DVT  Deep vein thrombosis
ECG  Electrocardiogram
ELISA  Enzyme-linked immunosorbent assay
FSH  Follicle-stimulating hormone
GBS  Group B streptococcus
GnRH  Gonadotrophin-releasing hormone
HAART  Highly active anti-retroviral therapy
Hb  Haemoglobin
hCG  Human chorionic gonadotrophin
HIV  Human immunodeficiency virus
HNPCC  Hereditary non-polyposis colorectal cancer
HPV  Human papilloma virus
HRT  Hormone replacement therapy
HSV  Herpes simplex virus
IUD  Intrauterine device
IUGR  Intrauterine growth restriction
LARC  Long-acting reversible contraception
LDH  Lactate dehydrogenase
LFT  Liver function test
LH  Luteinising hormone
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMR</td>
<td>Measles, mumps, rubella (vaccine)</td>
</tr>
<tr>
<td>MRI</td>
<td>Magnetic resonance imaging</td>
</tr>
<tr>
<td>NAATs</td>
<td>Nucleic acid amplification tests</td>
</tr>
<tr>
<td>NICE</td>
<td>National Institute for Health and Care Excellence</td>
</tr>
<tr>
<td>NOMAC</td>
<td>Nomegestrol acetate</td>
</tr>
<tr>
<td>OHSS</td>
<td>Ovarian hyperstimulation syndrome</td>
</tr>
<tr>
<td>PAPP-A</td>
<td>Pregnancy-associated plasma protein A</td>
</tr>
<tr>
<td>PE</td>
<td>Pulmonary embolism</td>
</tr>
<tr>
<td>PID</td>
<td>Pelvic inflammatory disease</td>
</tr>
<tr>
<td>PCR</td>
<td>Polymerase chain reaction</td>
</tr>
<tr>
<td>PCOS</td>
<td>Polycystic ovary syndrome</td>
</tr>
<tr>
<td>PKU</td>
<td>Phenylketonuria</td>
</tr>
<tr>
<td>PM</td>
<td>Premenstrual syndrome</td>
</tr>
<tr>
<td>PPH</td>
<td>Postpartum haemorrhage</td>
</tr>
<tr>
<td>PROM</td>
<td>Pre-labour rupture of membranes</td>
</tr>
<tr>
<td>PUPPP</td>
<td>Pruritic urticated papules and plaques of pregnancy</td>
</tr>
<tr>
<td>RCOG</td>
<td>Royal College of Obstetricians and Gynaecologists</td>
</tr>
<tr>
<td>RNA</td>
<td>Ribonucleic acid</td>
</tr>
<tr>
<td>SGA</td>
<td>Small-for-gestational-age</td>
</tr>
<tr>
<td>SSRIs</td>
<td>Selective serotonin reuptake inhibitors</td>
</tr>
<tr>
<td>UAE</td>
<td>Uterine artery embolisation</td>
</tr>
<tr>
<td>UI</td>
<td>Urinary incontinence</td>
</tr>
<tr>
<td>UTI</td>
<td>Urinary tract infection</td>
</tr>
<tr>
<td>VIN</td>
<td>Vulval intraepithelial neoplasia</td>
</tr>
<tr>
<td>VZV</td>
<td>Varicella zoster virus</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
Exam paper 2

Extended matching questions

Options for questions 1–3

<table>
<thead>
<tr>
<th>A</th>
<th>Hyperemesis gravidarum</th>
<th>F</th>
<th>Irritable bowel syndrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Gastroenteritis</td>
<td>G</td>
<td>Appendicitis</td>
</tr>
<tr>
<td>C</td>
<td>Ovarian cyst accident</td>
<td>H</td>
<td>Early onset pre-eclampsia</td>
</tr>
<tr>
<td>D</td>
<td>Fibroid degeneration</td>
<td>I</td>
<td>Pulmonary embolus</td>
</tr>
<tr>
<td>E</td>
<td>Urinary tract infection</td>
<td>J</td>
<td>Ovarian hyperstimulation syndrome</td>
</tr>
</tbody>
</table>

Instructions: for each of the patients described below, choose the single most appropriate diagnosis from the list above. Each option may be used once, more than once or not at all.

Question 1
A 32 year old woman had an embryo transfer 1 week ago; she self-referred to the A&E department with shortness of breath, abdominal discomfort and vomiting.

Question 2
A 43 year old woman self-referred to the A&E department with sudden onset of right lower abdominal pain, nausea and an episode of vomiting. She has an appendicectomy scar and was very tender in the right fornix on pelvic examination.

Question 3
A 26 year old woman self-referred to the A&E department feeling generally unwell and vomiting. She had a normal early pregnancy scan at 8 weeks. Her liver enzymes were raised.
Options for questions 4–6

<table>
<thead>
<tr>
<th></th>
<th>Options</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Oxytocin for augmentation</td>
<td>F</td>
</tr>
<tr>
<td>B</td>
<td>Await spontaneous labour within 24 hours</td>
<td>G</td>
</tr>
<tr>
<td>C</td>
<td>Await normal delivery</td>
<td>H</td>
</tr>
<tr>
<td>D</td>
<td>Instrumental delivery</td>
<td>I</td>
</tr>
<tr>
<td>E</td>
<td>Elective Caesarean section</td>
<td>J</td>
</tr>
</tbody>
</table>

**Instructions**: for each of the case histories described below, choose the **single** most appropriate action from the list above. Each option may be used once, more than once or not at all.

**Question 4**
A 30 year old primigravida attended labour ward at 38 weeks. She had premature rupture of membranes 6 hours ago.

**Question 5**
A multigravida in her 6th pregnancy has a delayed second stage labour of 2 hours. She has been pushing for more than 1 hour with adequate uterine contractions. The cardiotocograph is reassuring, the head is high.

**Question 6**
A 26 year old primigravida attended the delivery suite in spontaneous labour at 38 weeks. Her labour has progressed well. She received an epidural and has been fully dilated for 2 hours. She has been pushing for more than 1 hour and now feels exhausted. The head is visible and the cardiotocograph is reassuring.
## Options for questions 7–9

<table>
<thead>
<tr>
<th></th>
<th>Options</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Gonadotrophin-releasing hormone analogues</td>
<td>F</td>
<td>Mirena IUS (LNG-IUS)</td>
</tr>
<tr>
<td>B</td>
<td>Mifepristone</td>
<td>G</td>
<td>Depo-Provera</td>
</tr>
<tr>
<td>C</td>
<td>Danazol</td>
<td>H</td>
<td>Gestrinone</td>
</tr>
<tr>
<td>D</td>
<td>Tranexamic acid had</td>
<td>I</td>
<td>Misoprostol</td>
</tr>
<tr>
<td>E</td>
<td>Combined oral contraceptive pill</td>
<td>J</td>
<td>Cyclical progesterone orally</td>
</tr>
</tbody>
</table>

### Instructions

For each of the cases described below, choose the **single** most appropriate contraceptive from the list above. Each option may be used once, more than once or not at all.

---

### Question 7

A 31 year old P2+0 plans to go travelling for a few weeks; she admits that she is forgetful with pills. Her last pregnancy was with a ‘coil’ **in situ**. Her recent pelvic scan was reported to be normal.

### Question 8

A 26 year old with a long-standing history of dysmenorrhoea and menorrhagia had a laparoscopy and was diagnosed with endometriosis. She is keen to conceive in a few months.

### Question 9

A 45 year old woman had an endometrial biopsy for irregular bleeding. This showed endometrial hyperplasia without atypia.
# Options for questions 10–12

<p>| | | |</p>
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</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>A</td>
<td>Atonic postpartum haemorrhage</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>B</td>
<td>Cervical trauma</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>C</td>
<td>Retained products of conception</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>D</td>
<td>Bleeding disorder</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>E</td>
<td>Infection</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>F</td>
<td>Uterine rupture</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>G</td>
<td>Cervical shock</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>H</td>
<td>Aspirin</td>
</tr>
<tr>
<td><strong>I</strong></td>
<td>I</td>
<td>Disseminated intravascular coagulation</td>
</tr>
<tr>
<td><strong>J</strong></td>
<td>J</td>
<td>Therapeutic anticoagulation</td>
</tr>
</tbody>
</table>

**Instructions:** for each of the cases described below, choose the **single** most appropriate option from the list above. Each option may be used once, more than once or not at all.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Question 10</strong></td>
<td>A 36 year old multigravida had severe abdominal pain and collapsed after delivery. She has had two previous Caesarean sections.</td>
</tr>
<tr>
<td><strong>Question 11</strong></td>
<td>A 32 year old multigravida had an uneventful pregnancy and labour, after delivery she developed heavy vaginal bleeding.</td>
</tr>
<tr>
<td><strong>Question 12</strong></td>
<td>A 29 year old primigravida had a twin delivery where delivery of the placenta was difficult. She was discharged home and re-admitted 1 week later with heavy vaginal bleeding.</td>
</tr>
</tbody>
</table>
Options for questions 13–15

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Nuchal translucency scan and human chorionic gonadotrophin</td>
<td>F</td>
<td>Human chorionic gonadotrophin and unconjugated oestriol</td>
</tr>
<tr>
<td>B</td>
<td>Nuchal translucency scan, human chorionic gonadotrophin, pregnancy-associated plasma protein A, alpha-fetoprotein, unconjugated oestriol and inhibin A</td>
<td>G</td>
<td>Nuchal translucency scan, human chorionic gonadotrophin, alpha-fetoprotein, unconjugated oestriol and inhibin A</td>
</tr>
<tr>
<td>C</td>
<td>Human chorionic gonadotrophin and alpha-fetoprotein</td>
<td>H</td>
<td>Nuchal translucency scan, human chorionic gonadotrophin and pregnancy-associated plasma protein A</td>
</tr>
<tr>
<td>D</td>
<td>Nuchal translucency scan</td>
<td>I</td>
<td>Human chorionic gonadotrophin, alpha-fetoprotein and unconjugated oestriol</td>
</tr>
<tr>
<td>E</td>
<td>Unconjugated oestriol and inhibin A</td>
<td>J</td>
<td>Human chorionic gonadotrophin, alpha-fetoprotein, unconjugated oestriol and inhibin A</td>
</tr>
</tbody>
</table>

**Instructions:** for each of the Down syndrome tests described below, choose the **single** most appropriate range of investigations from the list above. Each option may be used once, more than once or not at all.

**Question 13**  
Components of the integrated test for antenatal screening of Down syndrome

**Question 14**  
Components of the combined test for first trimester screening of Down syndrome

**Question 15**  
Components of quadruple test for second trimester screening of Down syndrome
Options for questions 16–18

<table>
<thead>
<tr>
<th></th>
<th>Options</th>
<th></th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Androgen insensitivity syndrome</td>
<td>F</td>
<td>Turner syndrome</td>
</tr>
<tr>
<td>B</td>
<td>Polycystic ovarian syndrome</td>
<td>G</td>
<td>Asherman syndrome</td>
</tr>
<tr>
<td>C</td>
<td>Premature ovarian failure</td>
<td>H</td>
<td>Resistant ovary syndrome</td>
</tr>
<tr>
<td>D</td>
<td>Mayer–Rokitansky–Kuster–Hauser syndrome</td>
<td>I</td>
<td>Anorexia nervosa</td>
</tr>
<tr>
<td>E</td>
<td>Kallmann syndrome</td>
<td>J</td>
<td>Hyperprolactinaemia</td>
</tr>
</tbody>
</table>

**Instructions**: for each of the patients described below, choose the **single** most appropriate diagnosis from the list above. Each option may be used once, more than once or not at all.

**Question 16**: An 18 year old with normal secondary sexual characteristics seeks advice for primary amenorrhoea. She has cyclical pelvic pain. Her BMI is 23. Her sisters had menarche at 12 years.

**Question 17**: A 15 year old presented with primary amenorrhoea. She is 1.65 metres tall and has Tanner IV breast development. She has no pubic or axillary hair.

**Question 18**: A 25 year old presented with secondary amenorrhoea. She is the shortest of her siblings and has a webbed neck. Her sense of smell is normal.
## Options for questions 19–21

<p>| | | | |</p>
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<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Squamous metaplasia</td>
<td>F</td>
<td>Moderate dyskaryosis</td>
</tr>
<tr>
<td>B</td>
<td>Cervical erosion</td>
<td>G</td>
<td>Borderline nuclear changes</td>
</tr>
<tr>
<td>C</td>
<td>Cervical polyp</td>
<td>H</td>
<td>Arias–Stella change</td>
</tr>
<tr>
<td>D</td>
<td>Mild dyskaryosis</td>
<td>I</td>
<td>Severe dyskaryosis</td>
</tr>
<tr>
<td>E</td>
<td>Cervical wart</td>
<td>J</td>
<td>Nabothian cysts</td>
</tr>
</tbody>
</table>

### Instructions
For each of the patients described below, choose the **single** most appropriate diagnosis from the list above. Each option may be used once, more than once or not at all.

#### Question 19
A 45 year old woman was referred by her GP with an unusually ‘bumpy’ cervix. There is no intermenstrual or post-coital bleeding. A cervical smear 6 months ago was normal. Examination demonstrated multiple pearly white spots on the ectocervix.

#### Question 20
A 28 year old was referred with recurrent post-coital bleeding and copious clear vaginal discharge. Examination revealed a circumferential red area around the cervical os with contact bleeding.

#### Question 21
A 25 year old was referred to the colposcopy clinic with previous inadequate smears. There was an irregular sessile growth on the cervix. Similar growths were visualised on the vaginal wall.
Options for questions 22–24

<table>
<thead>
<tr>
<th></th>
<th>Repeat fetal blood sampling within 10 minutes</th>
<th>F</th>
<th>Caesarean section</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Wait and watch</td>
<td>G</td>
<td>Repeat fetal blood sampling within 30 minutes</td>
</tr>
<tr>
<td>C</td>
<td>Fetal blood sampling</td>
<td>H</td>
<td>Stop oxytocin</td>
</tr>
<tr>
<td>D</td>
<td>Urgent delivery</td>
<td>I</td>
<td>Subcutaneous terbutaline</td>
</tr>
<tr>
<td>E</td>
<td>Instrumental delivery</td>
<td>J</td>
<td>Real-time ultrasonography</td>
</tr>
</tbody>
</table>

Instructions: for each of the situations described below, choose the single most appropriate action from the list above. Each option may be used once, more than once or not at all.

**Question 22**
A 30 year old woman during labour undergoes cardiotocography. The trace shows a fetal heart rate of 106 beats/minute and variability of less than 5 beats/minute for 50 minutes.

**Question 23**
A 32 year primigravida is admitted in labour. Cardiotocography shows a fetal heart rate of 190 beats/minute. Fetal blood sampling shows pH values of 7.21–7.24. The trace remains the same after 15 minutes.

**Question 24**
Fetal blood sampling done for a pathological trace shows pH ≤7.2.
## Options for questions 25–27

<p>| | | |</p>
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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Shelf pessary</td>
<td>F</td>
</tr>
<tr>
<td>B</td>
<td>Reassurance</td>
<td>G</td>
</tr>
<tr>
<td>C</td>
<td>Pelvic floor exercises</td>
<td>H</td>
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<td>D</td>
<td>Vaginal hysterectomy</td>
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<td>E</td>
<td>Pelvic floor repair</td>
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**Instructions:** for each of the patients described below, choose the **single** most appropriate treatment from the list above. Each option may be used once, more than once or not at all.

### Question 25
An 88 year old lady has a history of a lump inside the vagina which is getting worse. She has a history of chronic asthma and unstable angina. On examination there is a second degree uterovaginal prolapse and a large cystocele.

### Question 26
A 30 year lady presents with urinary incontinence on coughing and laughing since the birth of her child 6 months ago.

### Question 27
A 45 year old lady presents with a 3 year history of a lump inside her vagina. The lump is causing discomfort and she is unable to use tampons. She also has a long-standing history of troublesome menorrhagia. She is unable to cope with the symptoms and would like a permanent solution.
Options for questions 28–30

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<tr>
<td>A</td>
<td>Depo-Provera and condom use</td>
<td>F</td>
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<tr>
<td>B</td>
<td>Progestogen-only pill</td>
<td>G</td>
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<td>C</td>
<td>Continue using barrier contraception</td>
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<td>D</td>
<td>NuvaRing</td>
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<td>E</td>
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**Instructions:** for each of the patients described below, choose the **single** most appropriate contraceptive option from the list above. Each option may be used once, more than once or not at all.

**Question 28**
A 40 year old woman has recently been diagnosed with breast cancer; she has been taking the combined oral contraceptive pill for the last 3 years.

**Question 29**
A 26 year old HIV-positive woman on nevirapine therapy would like to choose the most suitable method of contraception.

**Question 30**
A 47 year old woman with amenorrhoea for 1 year has been using barrier contraception.
Single best answer questions

31 Which one of the following statements about physiological changes in pregnancy is true?
   A Thyroxine-binding globulin levels decrease during pregnancy.
   B Venous return in the inferior vena cava is helped by lying in the right lateral position.
   C Tidal volume increases during pregnancy.
   D Gastrointestinal motility is increased.
   E Creatinine clearance is reduced.

32 Which one of the following statements about Rhesus status is false?
   A Rhesus D-negative women who give birth to a Rhesus-positive baby should be offered anti-D 72 hours after delivery.
   B Sensitisation to the Rhesus antigen does not occur with external cephalic version.
   C Sensitisation to the Rhesus antigen may occur after chorionic villus biopsy.
   D For routine antenatal prophylaxis NICE recommends that two doses of anti-D immunoglobulin should be given at 28 and 34 weeks of gestation.
   E For routine antenatal prophylaxis NICE recommends that a single dose of anti-D immunoglobulin may be given between 28 and 30 weeks of gestation.

33 Which one of the following statements about genital mutilation is false?
   A Female genital mutilation is a child protection issue.
   B Keloid scar formation may result from female genital mutilation.
   C Urinary outflow obstruction may result from female genital mutilation.
D It is an offence for any person to excise or mutilate any part of the labia majora or clitoris of another person in England, Scotland and Wales.

E Female genital mutilation is prohibited by law in England, Scotland and Wales, if committed against a UK national.

34 Concerning thromboprophylaxis in pregnancy, which one of the following statements is false?

A Low molecular weight heparins may be used for antenatal thromboprophylaxis.

B Low molecular weight heparins should be stopped during labour.

C Low molecular weight heparins are safe during breastfeeding.

D Low molecular weight heparins for 7 days after delivery should be considered for mothers with BMI >40 kg/m².

E Women with antiphospholipid syndrome should be offered thromboprophylaxis antenatally and for 7 days after delivery.

35 Which one of the following statements is true?

A The Rotterdam diagnostic criteria for polycystic ovary syndrome do not include clinical signs of hyperandrogenism.

B Hyperprolactinaemia does not cause oligomenorrhoea.

C Total testosterone level may be normal in women with PCOS.

D Luteinising hormone (LH)/follicle-stimulating hormone (FSH) ratios are helpful in diagnosing PCOS.

E Polycystic ovaries have to be present to make the diagnosis.

36 Which one of the following statements regarding postpartum haemorrhage is true?

A Primary postpartum haemorrhage is the loss of ≥500 ml of blood from the genital tract up to 48 hours postnatally.

B Secondary postpartum haemorrhage is abnormal or excessive bleeding from the genital tract up to 7 days postnatally.
C The risk of postpartum haemorrhage may be reduced by active management in the third stage of labour.

D Secondary postpartum haemorrhage is not associated with endometritis.

E Obesity is not a risk factor for postpartum haemorrhage.

37 Which one of the following statements regarding premenstrual syndrome (PMS) is true?

A PMS regularly occurs during the follicular phase of the menstrual cycle.

B Cognitive behavioural therapy is not helpful in severe PMS.

C Continuous low dose selective serotonin re-uptake inhibitors are not helpful in PMS.

D Luteal phase low dose selective serotonin re-uptake inhibitors are not helpful in PMS.

E The combined oral contraceptive pill may be helpful for severe PMS.

38 Regarding postnatal care, which one of the following statements is false?

A In seronegative women who have been given the MMR (measles, mumps and rubella) vaccine postnatally, pregnancy should be avoided for 1 month.

B In seronegative women who have been given the MMR vaccine postnatally, breastfeeding should be avoided.

C Newborn hearing screening takes place within 4–5 weeks.

D The newborn examination is performed within 72 hours.

E The newborn blood spot test is usually carried out when the baby is 5–8 days old.

39 Regarding breastfeeding, which one of the following statements is false?

A The Department of Health recommends exclusive breastfeeding for the first 4 months of an infant’s life.
B Breastfeeding increases the risk of mother-to-child transmission of human immunodeficiency virus.

C Breastfeeding may continue whilst receiving appropriate antibiotics for mastitis.

D Breast infections are commonly caused by *Staphylococcus aureus*.

E Tongue-tie may make breastfeeding difficult.

**40** Concerning genital herpes in pregnancy, which one of the following statements is **true**?

A For women presenting with a primary episode of genital herpes at the time of delivery, Caesarean section is not recommended.

B For women presenting with a primary episode of genital herpes within 6 weeks of their due date, Caesarean section is recommended.

C For women presenting with a recurrent episode of genital herpes at the time of delivery, Caesarean section is recommended.

D Neonatal herpes is not caused by herpes simplex virus type 1.

E Neonatal herpes is not caused by herpes simplex virus type 2.

**41** Concerning recurrent miscarriage, which one of the following statements is **true**?

A Recurrent miscarriage refers to the loss of two or more pregnancies.

B Peripheral blood karyotyping may be helpful in investigating recurrent miscarriage.

C Women diagnosed with recurrent miscarriage do not need a pelvic ultrasound scan.

D Women diagnosed with recurrent miscarriage should routinely have thyroid function tests.

E Screening for bacterial vaginosis with 2nd trimester miscarriage is not essential.
42 Regarding placenta praevia, which one of the following statements is true?

A Transvaginal ultrasound should not be used to diagnose placenta praevia.
B Women with major placenta praevia who have previously bled should be managed as inpatients from 32 weeks of gestation.
C Placenta praevia typically presents with the sudden onset of painful bleeding.
D Previous Caesarean section is not associated with placenta praevia.
E Advanced maternal age is associated with placenta praevia.

43 Which one of the following statements about physiological changes in pregnancy is true?

A Glomerular filtration rate decreases.
B Alkaline phosphatase decreases.
C Leukocytosis occurs during pregnancy.
D Serum iron increases.
E Bilirubin increases.

44 Which one of the following statements regarding fertility is false?

A Infertility refers to the failure to conceive after regular unprotected intercourse for 1 year in the absence of known reproductive pathology.
B Semen analysis and an assessment of ovulation should be made prior to making an assessment of tubal occlusion.
C Lifestyle advice for couples wishing to conceive may include advice concerning folic acid.
D Lifestyle advice for couples wishing to conceive includes advising intercourse every 2–3 days.
E Lifestyle advice for couples wishing to conceive includes smoking cessation.
45 Which one of the following statements regarding chlamydia is true?

A Chlamydia is caused by a Gram-positive bacteria.
B Chlamydia is always symptomatic.
C Chlamydia never presents with a reactive arthritis.
D Chlamydia is commonly diagnosed from a urethral swab in a man.
E If a vaginal examination is indicated, an endocervical swab for chlamydia may be taken.

46 Which one of the following statements is true?

A Follow-up retinal assessment for women with pre-existing diabetes should be performed at 24 weeks if there is diabetic retinopathy.
B Retinal assessment for women with pre-existing diabetes should be performed after the first contact in pregnancy if it has not taken place in the last year.
C Diabetes in pregnancy may be managed in a routine antenatal clinic.
D Hypoglycaemia awareness is increased during pregnancy.
E Diabetic retinopathy is stable during pregnancy.

47 Regarding the NHS Newborn Blood Spot Screening programme, which one of the following conditions is not screened for?

A Phenylketonuria.
B Tay–Sachs disease.
C Medium-chain acyl-CoA dehydrogenase deficiency.
D Cystic fibrosis.
E Sickle cell disease.
48 Which one of the following statements regarding *Trichomonas vaginalis* is true?

A *Trichomonas vaginalis* is a bacterium.

B It is usually treated with azithromycin.

C Contact tracing is not required if *Trichomonas* infection is confirmed.

D *Trichomonas vaginalis* infection does not present with a frothy discharge.

E *Trichomonas* infection in men may cause a urethral discharge and dysuria.
Multiple choice questions

For each of these multiple choice questions, you must indicate which of the statements are true and which are false.

49 Concerning Bartholin’s cysts and abscesses

A Bartholin’s glands are situated at the 2 o’clock and 10 o’clock position of the vestibule on either side of the vagina.

B Bartholin’s glands are usually palpable.

C Bartholin’s cysts or abscesses occur in approximately 10% of women.

D Abscesses present as painless unilateral labial swellings.

E Symptomatic cysts and abscesses may be managed by insertion of a balloon catheter.

50 Concerning congenital adrenal hyperplasia (CAH)

A CAH is an autosomal dominant condition with variable penetrance.

B It is commonly caused by 11-hydroxylase deficiency.

C CAH forms part of the national neonatal screening programme.

D Male babies may be identifiable as they usually have ambiguous genitalia.

E Female babies usually present in adrenal crisis.

51 With regard to genitourinary prolapse

A Increased parity is not a risk factor for genitourinary prolapse.

B Obesity is a risk factor for genitourinary prolapse.

C Prolapse does not present with urinary symptoms.

D Prolapse may cause dyspareunia.

E Constipation may occur as a result of genitourinary prolapse.
52 Concerning anaemia in pregnancy

A If haemoglobin is <10.5 g/dl antenatally, haemoglobinopathy does not need to be excluded.

B Parenteral iron should be used first-line for iron-deficiency anaemia.

C Pregnant women should have their blood group and antibody status checked at the booking visit.

D Pregnant women should have their blood group and antibody status checked at 18–20 weeks of gestation.

E Blood loss may be minimised during labour by active management of the second stage.

53 Regarding risks associated with diagnostic hysteroscopy

A The risk of serious complications arising from diagnostic hysteroscopy is approximately 2 women in every 100.

B There is a risk of uterine perforation with diagnostic hysteroscopy.

C Bladder damage frequently occurs with diagnostic hysteroscopy.

D Failure to instrument the uterus frequently occurs.

E Infection and bleeding rarely occur.

54 Regarding postmenopausal cysts and bleeding

A Ovarian cysts should be evaluated by transvaginal ultrasonography and CA19.9 levels.

B Simple unilateral cysts that are <6 cm diameter are considered to be at low risk of malignancy.

C Women presenting with postmenopausal bleeding not on hormone replacement therapy should be referred routinely to a specialist.

D Women taking tamoxifen who present with postmenopausal bleeding should be referred urgently to a specialist.

E Women with persistent or unexplained postmenopausal bleeding after stopping hormone replacement therapy for 8 weeks should be referred routinely to a specialist.
55 With regard to delaying menstruation
A If a woman is taking the combined oral contraceptive pill, menstruation is not delayed by omitting the pill-free interval.
B Norethisterone is usually taken once daily when used to delay menstruation.
C Norethisterone is usually taken approximately one week before the onset of menstruation is expected.
D Menstruation usually occurs 2–3 days after stopping norethisterone.
E Norethisterone may cause breast tenderness.

56 Concerning ovarian torsion
A Induction of ovulation as part of infertility treatment decreases the risk of ovarian torsion.
B Pregnancy may be associated with ovarian torsion.
C Ovarian torsion typically presents with a gradual onset of pain.
D Ectopic pregnancy may present with clinical features of ovarian torsion.
E Ovarian tumours decrease the risk of ovarian torsion.

57 Regarding HIV and pregnancy
A Pregnant women who are HIV positive should be offered sexual health screening.
B Vaginal delivery is absolutely contraindicated.
C If a woman chooses to undergo a vaginal delivery, artificial rupture of membranes should be avoided.
D The MMR vaccine is recommended in pregnant women who are HIV positive.
E Invasive diagnostic testing is always contraindicated in pregnant women who are HIV positive.
58 Concerning chickenpox and pregnancy:
A Chickenpox during pregnancy is a common cause of miscarriage.
B Chickenpox during pregnancy may cause severe maternal illness.
C Varicella vaccine can safely be given during pregnancy.
D If a pregnant woman not immune to Varicella zoster virus has been exposed, immunoglobulin may be given up to 7 days after contact.
E Pregnancy should be avoided for 3 months in a woman of reproductive age who has received the Varicella vaccine.

59 In management of ectopic pregnancy:
A Laparoscopic salpingectomy is preferred over laparoscopic salpingostomy if the Fallopian tube is damaged.
B Methotrexate is used in medical management.
C Medical management is offered to women with minimal symptoms and serum hCG <3000 IU/l.
D Ectopic pregnancy may be managed on an outpatient basis.
E Women with suspected ectopic pregnancy who are Rhesus negative do not need to be given anti-D immunoglobulin.

60 Concerning congenital diaphragmatic hernia
A A congenital diaphragmatic hernia is often the result of an anterior defect.
B Left-sided hernias allow herniation of the large and small bowel in the thoracic cavity.
C A congenital diaphragmatic hernia does not cause pulmonary hypoplasia.
D A congenital diaphragmatic hernia does not cause pulmonary hypertension.
E There is surfactant dysfunction in this condition.
61 Regardng antibiotics and pregnancy
A Metronidazole may be used in pregnancy.
B Ciprofloxacin may be safely used in pregnancy.
C Trimethoprim may be safely used in pregnancy.
D Amoxicillin may be used in pregnancy.
E Azithromycin may be used in pregnancy.

62 Concerning the ‘Saving Mothers’ Lives’ report
A The Centre for Maternal and Child Enquiries produces biennial reports on enquiries into maternal deaths.
B The most recent report was for 2005–2008.
C The commonest cause of direct death was thromboembolism in the most recent report.
D The leading cause of indirect death was diabetes in the most recent report.
E The enquiry revealed that obesity was a risk factor for maternal mortality.

63 With regard to toxic shock syndrome (TSS)
A TSS may cause a diffuse or erythrodermic rash.
B TSS commonly presents with hypertension.
C TSS does not cause gastrointestinal symptoms.
D Uterine packing after postpartum haemorrhage is not a risk factor for TSS.
E Postpartum sepsis is a risk factor for TSS.

64 Concerning multiple pregnancy
A Advanced maternal age is not associated with multiple pregnancy.
B A family history of dizygotic twins is associated with multiple pregnancy.
C Race is not associated with multiple pregnancies.
D There is a risk of multiple pregnancy with ovulation induction.
E Multiple pregnancy is not associated with an increased risk of prematurity.

65 Regarding peripartum cardiomyopathy
A Peripartum cardiomyopathy generally occurs up to 1 year postpartum.
B Peripartum cardiomyopathy is usually associated with pre-existing heart disease.
C Multiparity is not a risk factor for peripartum cardiomyopathy.
D This condition is a hypertrophic cardiomyopathy.
E Ankle oedema may be associated with peripartum cardiomyopathy as well as the later stages of pregnancy.

66 Concerning criteria for screening programmes
A Screening may take place for an important clinical condition with an early asymptomatic stage where there is a benefit in early detection.
B The screening test carried out should be validated and acceptable to those being screened.
C The screening test carried out should be validated and acceptable to health care professionals.
D There should be evidence that early treatment is as beneficial as late treatment of the condition.
E A screening programme always results in a reduction in morbidity and mortality.

67 The following are absolute contraindications for the combined oral contraceptive pill:
A BMI above 30 kg/m² AND history of superficial thrombophlebitis.
B Smoking AND aged over 30 years.
C  Venous thromboembolism in a sister aged 30 AND smoking.
D  Blood pressure above systolic 160 mmHg or diastolic 95 mmHg.
E  Diabetes AND smoker.

68  Regarding statistics
A  The absolute risk reduction is not the same as the difference between the risk of an event in the control group and the risk of the event in the intervention group.
B  The number needed to harm refers to how many people need to have an intervention for one person to benefit from it.
C  The number needed to treat may be calculated if the absolute risk reduction is known.
D  A positive predictive value is obtained by calculating the proportion of people who have a positive test result who actually have the disease.
E  If the relative risk is 1 there is a difference between an intervention and control group.

69  Regarding definitions
A  If a woman dies during pregnancy or up to 28 days postpartum from an obstetric cause or a cause exacerbated by pregnancy, this may be classified as a maternal death.
B  A direct maternal death may occur postpartum.
C  An indirect cause of maternal death may have been exacerbated by pregnancy.
D  A neonatal death is where a live-born baby dies before 42 completed days.
E  The perinatal mortality rate refers to the number of stillbirths and neonatal deaths per 1000 live births.
70 Concerning androgen insensitivity syndrome
A Androgen insensitivity syndrome is an autosomal recessive condition.
B There is phenotypic male development in a chromosomally female patient.
C Patients with androgen insensitivity syndrome have normal testes.
D Patients with androgen insensitivity syndrome have a womb.
E This condition may present with secondary amenorrhoea.

71 Krukenberg tumours:
A Are primary ovarian tumours.
B Have the breast as the commonest primary site.
C Are mostly unilateral.
D Mostly occur through transcoelomic spread.
E Often display signet ring cells on histology.

72 Regarding cervical screening
A Cervical screening may be postponed by 3 months following pregnancy.
B Cervical screening is best performed mid-cycle.
C Women who have never been sexually active do not need cervical screening.
D Women in a same-sex relationship do not need cervical screening.
E Women must attend their GP surgery for cervical screening to ensure continuity of care.

73 Concerning HIV and pregnancy
A Elective Caesarean section may reduce the risk of vertical transmission.
B Artificial rupture of membranes should be avoided.
C Breastfeeding should be recommended in the UK.
D  Polymerase chain reaction is used for the diagnosis of infant infections.
E  Zidovudine prophylaxis in the neonate may reduce vertical transmission.

74  Regarding management of fibroids
A  Tranexamic acid may relieve symptoms.
B  Gonadotrophin releasing hormone (GnRH) analogues increase the size of fibroids.
C  Fibroids may be managed hysteroscopically.
D  Fibroids may be treated by occlusion of the uterine arteries.
E  There is a 50% risk of fibroid recurrence.

75  Concerning cytomegalovirus (CMV) and pregnancy
A  CMV is a herpes virus.
B  CMV is not found in saliva.
C  CMV infection in pregnancy does not cause intrauterine growth restriction.
D  CMV infection in pregnancy may cause conductive hearing loss.
E  CMV infection in pregnancy may cause hepatosplenomegaly.

76  Regarding epilepsy and contraception
A  Levetiracetam does not affect the efficacy of the combined oral contraceptive pill.
B  Lamotrigine does not affect the efficacy of the combined oral contraceptive pill.
C  The progestogen-only pill in epilepsy has reduced efficacy with enzyme-inducing AEDs.
D  Depot medroxyprogesterone acetate (DMPA) is unaffected by liver enzyme-inducing drugs.
E  The Mirena coil is a potential contraceptive option for women on enzyme-inducing medications.
Questions and Answers for the DRCOG

77 Risk factors for pre-eclampsia include:
   A Previous pre-eclampsia.
   B Primagravida.
   C Family history of pre-eclampsia.
   D Hydatidiform mole.
   E BMI <35 kg/m².

78 Concerning Caesarean section
   A Bladder or ureteric injury commonly occurs during Caesarean section.
   B Emergency hysterectomy is a rarely occurring risk during Caesarean section.
   C There is a decreased risk of uterine rupture in subsequent pregnancies following Caesarean section.
   D There is a decreased risk of placenta praevia in subsequent pregnancies following Caesarean section.
   E There is an increased risk of Caesarean section when vaginal delivery is attempted following a previous Caesarean section.

79 Regarding alcohol and pregnancy
   A Alcohol misuse during pregnancy is associated with low birth weight.
   B Fetal alcohol syndrome is associated with facial anomalies.
   C Newborns with fetal alcohol syndrome commonly display withdrawal.
   D Pre-conceptual screening for substance misuse may be considered.
   E The diagnosis of fetal alcohol syndrome is often delayed.
80 Regarding pregnancy and lithium therapy
A There is an increased risk of fetal heart defects.
B Low levels of lithium are found in breast milk.
C Lithium therapy is safe during pregnancy.
D Women taking lithium therapy may have a home delivery if there is adequate support.
E Fluid status should be closely monitored during labour.

81 Hormone replacement therapy (HRT):
A Should be stopped in a patient that presents with sudden onset of shortness of breath.
B Should be stopped if there is unexplained unilateral lower leg swelling.
C Should be stopped if diastolic blood pressure is persistently >90 mmHg.
D Should be stopped if systolic blood pressure is persistently >140 mmHg.
E Does not need to be stopped if severe abdominal pain occurs.

82 Regarding risks associated with multiple pregnancy
A Multiple pregnancies are not associated with an increased risk of congenital abnormalities when compared with singleton pregnancies.
B There is an increased risk of oligohydramnios with multiple pregnancy.
C Hyperemesis gravidarum occurs more frequently in multiple pregnancy when compared with singleton pregnancy.
D There is a decreased risk of placental abruption with multiple pregnancy.
E There is a decreased risk of cord prolapse with multiple pregnancy.
83 Concerning medications which cause galactorrhoea
A Metoclopramide may cause galactorrhoea.
B Risperidone does not cause galactorrhoea.
C Tricyclic antidepressants do not cause galactorrhoea.
D Selective serotonin reuptake inhibitors may cause galactorrhoea.
E Cimetidine may cause galactorrhoea.

84 Regarding placental abruption
A There is an increased risk of placental abruption with advanced maternal age.
B Hypertension does not increase the risk of placental abruption.
C Prolonged rupture of membranes is not associated with an increased risk of placental abruption.
D Cocaine use may increase the risk of placental abruption.
E Cigarette smoking reduces the risk of placental abruption.

85 Concerning vaccination during pregnancy
A Haemophilis influenza type B (Hib) vaccine may be given during pregnancy.
B Yellow fever vaccine may be given during pregnancy.
C The MMR vaccine may be given during pregnancy.
D The BCG vaccine may be given during pregnancy.
E Meningococcal vaccines may be given during pregnancy.

86 Regarding bacterial vaginosis (BV)
A The presence of a smelly white discharge does not support the diagnosis of BV.
B Clue cells on microscopy support the diagnosis of BV.
C pH of vaginal fluid >5.5 is part of the Amsel criteria.
D The release of a fishy odour on addition of 10% potassium hydroxide may be used to diagnose BV.

E Intravaginal metronidazole gel may be used to treat BV.

87 Concerning treatment of UTIs during pregnancy

A UTIs may be treated with cephalosporins during pregnancy.

B Nitrofurantoin may be used to treat UTIs throughout pregnancy.

C Nitrofurantoin may be used to treat UTIs if a mother is breastfeeding.

D The teratogenic risk with trimethoprim is greatest in the second trimester.

E Ciprofloxacin may be safely used during pregnancy.

88 Regarding 5-alpha-reductase deficiency

A 5-alpha-reductase deficiency is an X-linked condition.

B 5-alpha-reducatase deficiency results in chromosomally female patients having ambiguous genitalia.

C Patients with this condition have normal testes.

D Patients with this condition have a womb.

E It may be difficult to distinguish androgen insensitivity syndrome from 5-alpha-reductase deficiency clinically.
Answers and explanations for exam paper 2

1. Answer J Ovarian hyperstimulation syndrome

Ovarian hyperstimulation syndrome may be caused by inducing ovulation for assisted conception. Symptoms of mild hyperstimulation occur during treatment cycles; however, moderate and severe symptoms usually occur 6–8 days after treatment ends. Mild symptoms include abdominal bloating and nausea. In moderate ovarian hyperstimulation syndrome, nausea and vomiting are more prominent features; women may report weight gain and an increase in abdominal girth. With increasing severity an increase in abdominal girth caused by ascites may result in shortness of breath. Other features include dehydration and an increased risk of venous thromboembolism.

2. Answer C Ovarian cyst accident

In the setting of acute pelvic pain, ovarian torsion forms part of the differential diagnosis. Significant haemorrhage of an ovarian cyst often manifests itself with an abrupt onset of pelvic pain. There may be haemorrhage into a corpus luteal cyst or follicular cyst. Cyst rupture may be associated with haemoperitoneum and hypotension, with the latter usually dominating the clinical picture.

3. Answer A Hyperemesis gravidarum

Hyperemesis gravidarum refers to severe and intractable nausea and vomiting that usually occurs between 8 and 12 weeks of pregnancy in up to 2% of pregnancies. In some patients symptoms may lessen but persist up to the 20th week of pregnancy and, in some cases, symptoms may occur throughout pregnancy. It is the most common reason for hospitalisation during early pregnancy. Hyperthyroidism causing nausea and vomiting is rare. Transient hyperthyroidism is seen in about 60% of women with hyperemesis, this usually resolves by 18 weeks of gestation. This may be caused by raised levels of hCG or hypersensitivity of thyroid hormone receptors to hCG. Elevated transaminases may occur in up to 25% of patients with hyperemesis gravidarum. This often resolves once the nausea has settled. Significantly elevated liver enzymes, however, may be a sign of another underlying liver condition such as hepatitis or liver injury. Amylase may be elevated in approximately 10% of patients with hyperemesis gravidarum.

4. Answer B Await spontaneous labour within 24 hours

Up to 60% of women with prelabour rupture of membranes (PROM) at term will go into labour within 24 hours. After 24 hours, induction of labour may be considered.
5. Answer **I** Emergency Caesarean section

In nulliparous women, delay in the active second stage of labour is diagnosed if it has lasted 2 hours. In multiparous women, delay in the active second stage of labour is diagnosed if it has lasted 1 hour. In this scenario there is a delayed second stage and the head is high therefore the most appropriate intervention is an emergency Caesarean section. Cephalopelvic disproportion is the most likely cause.

6. Answer **D** Instrumental delivery

In nulliparous women, delay in the active second stage of labour is diagnosed if it has lasted 2 hours. In this scenario the mother is tiring and the head is visible, therefore an instrumental delivery is the most appropriate option.

7. Answer **G** Depo-Provera

Depo-Provera is the most suitable option as the patient has tried the Mirena coil in the past and experienced a contraceptive failure with it. Furthermore this method is long-acting, reversible and not reliant on the patient remembering to take her contraception. Women should be counselled on risks and benefits of suitable contraceptive options prior to making a decision. Irregular bleeding is common with Depo-Provera but most women do become amenorrhoeic. Weight gain may cause discontinuation and there may be a delay in return of fertility. It may cause a reduction in bone mineral density in the first 2–3 years of use therefore its use should be re-evaluated. Progesterone-only contraception may be suitable for women with contraindications to the combined oral contraceptive pill.

8. Answer **E** Combined oral contraceptive pill

The combined oral contraceptive pill may be used to reduce menorrhagia and dysmenorrhoea caused by endometriosis. Suppression of ovarian function to improve pain related to endometriosis may be achieved by using the combined oral contraceptive pill, danazol, gestrinone, medroxyprogesterone acetate, and gonadotrophin-releasing hormone analogues. These treatment options have a variable side effect profile; the combined oral contraceptive pill represents the best option for this scenario.

9. Answer **F** Mirena IUS (LNG–IUS)

The Mirena intrauterine system is licensed for use as a contraceptive, for treatment of menorrhagia, and for endometrial protection if used with oestrogen hormone replacement therapy. It is effective in menorrhagia within 3–6 months of insertion as endometrial proliferation is prevented; bleeding usually becomes significantly lighter or may stop. Fertility is restored after removal. Enzyme-inducing medications are unlikely to reduce the contraceptive effect of the Mirena intrauterine system.
10. Answer **F** Uterine rupture

There is an increased risk of uterine rupture with trauma and previous Caesarean section or uterine surgery. Uterine rupture often does not present with typical signs. It may present with sudden severe pain, heavy vaginal bleeding, fetal distress and hypovolaemic shock. Uterine inversion may present with appearance of a vaginal mass, postpartum haemorrhage and hypovolaemic shock.

11. Answer **A** Atonic postpartum haemorrhage

Primary postpartum haemorrhage (PPH) is the loss of ≥500 ml of blood from the genital tract up to 24 hours postnatally. The risk of PPH may be reduced by active management in the third stage of labour and therefore prophylactic oxytocics are given. Uterine atony is a common cause of PPH. Risk factors for PPH include: placenta praevia, multiple pregnancy, pre-eclampsia, obesity, delivery by emergency Caesarean section, operative vaginal delivery, prolonged labour >12 hours and age >40 years. (RCOG, 2009; Green-top Guideline 52: Prevention and management of postpartum haemorrhage.)

12. Answer **C** Retained products of conception

Secondary PPH is abnormal or excessive bleeding from the genital tract between 24 hours and 12 weeks postnatally. Secondary PPH is often associated with endometritis or retained products of conception.

13. Answer **B** Nuchal translucency scan, hCG, PAPP-A, alpha-fetoprotein, unconjugated oestriol and inhibin A

From 11–13+6 weeks and 15–20 weeks, the integrated test includes the nuchal translucency scan, hCG, PAPP-A, alpha-fetoprotein, unconjugated oestriol and inhibin A.

14. Answer **H** Nuchal translucency scan, hCG and PAPP-A

From 11–13+6 weeks gestation the combined test may be performed. The combined test consists of the nuchal translucency scan, hCG and PAPP-A.

15. Answer **J** hCG, alpha-fetoprotein, unconjugated oestriol and inhibin A

The quadruple test may be carried out from 15–20 weeks. This includes hCG, alpha-fetoprotein, unconjugated oestriol and inhibin A.

Congenital absence of the vagina is a feature of Mayer–Rokitansky–Kuster–Hauser syndrome. This usually presents as primary amenorrhoea with normal secondary sexual characteristics because ovarian function is normal. As a result there may be cyclical abdominal pain without menstruation. Vaginal aplasia may be partial or complete. This condition may occur with other paramesonephric duct abnormalities; renal anomalies are often found.

17. Answer A Androgen insensitivity syndrome

Androgen insensitivity syndrome is a rare X-linked condition which may be partial or complete. Masculinisation of the external genitalia does not occur due to the loss of function mutation in the androgen receptor gene in a chromosomally male patient, therefore there is phenotypic female development. Patients with androgen insensitivity syndrome have normal testes. The testes produce anti-Mullerian hormone and this prevents development of the Fallopian tubes, uterus and upper vagina. This condition may present with primary amenorrhoea. Adolescents with androgen insensitivity syndrome may present with inguinal masses, that is, undescended testes. Furthermore, breast development is normal but they do not have pubic or axillary hair.

18. Answer F Turner syndrome

Turner syndrome is the most common sex chromosome abnormality in females. It may be caused by the absence of one X chromosome (45,X) or may result from mosaicism (for example, 45,X/46XX). Features include short stature, lymphoedema of the hands and feet at birth, gonadal dysgenesis, high palate, widely spaced nipples, wide carrying angle and a webbed neck. Cardiovascular features include an increased risk of coarctation of the aorta and a bicuspid aortic valve. It may present with primary or secondary amenorrhoea. Kallman syndrome is associated with a reduced or absent sense of smell with hypothalamic gonadotrophin-releasing hormone deficiency.

19. Answer J Nabothian cysts

Nabothian cysts are often asymptomatic and are seen as multiple translucent or yellow lesions on the cervix. They usually represent areas of tissue re-growth where the stratified squamous epithelium of the ectocervix has grown over columnar epithelium. This may cause obstruction to the cervical crypts.

20. Answer B Cervical erosion

An ectropion is caused when columnar epithelium extends around the external os. Cervical ectopy may be associated with puberty, pregnancy and oral contraceptive pill use. It is usually an asymptomatic condition but may present with bleeding and discharge.
21. Answer **E** Cervical wart
Genital warts are caused by different types of the human papilloma virus (HPV); they usually arise from direct skin contact during sexual intercourse. HPV types 6 and 11 are associated with genital warts. They may arise several months after infection. Barrier contraception may reduce the risk of HPV transmission. Genital warts may be multiple and may cause itching, bleeding or pain.

22. Answer **C** Fetal blood sampling
The baseline number of beats per minute and the variability of less than 5 beats per minute for 40–90 minutes in this scenario is non-reassuring. Fetal blood sampling should be considered.

23. Answer **G** Repeat fetal blood sampling within 30 minutes
pH ≥7.25 is normal, pH 7.21–7.24 is borderline and pH ≤7.20 is abnormal. In this scenario there is a borderline fetal blood sampling result. Sampling should be repeated within 30 minutes as the trace is pathological.

24. Answer **D** Urgent delivery
A fetal scalp blood pH level ≤7.20 is abnormal; therefore urgent instrumental or operative delivery is needed.

25. Answer **A** Shelf pessary
There is an increased risk of genitourinary prolapse with advancing age, vaginal delivery, increased parity and obesity. Prolapse may present with a sensation of pressure or fullness in the vagina, urinary symptoms, dyspareunia, constipation as well as incontinence. In this scenario an operative intervention is less desirable. Pessary insertion to reduce symptoms provides a suitable alternative provided that the perineum is able to hold a pessary in place. There is a risk of vaginal erosion, bleeding and infection that may be associated with pessary use.

26. Answer **C** Pelvic floor exercises
A trial of supervised pelvic floor muscle training of at least 3 months’ duration should be offered to women with stress or mixed urinary incontinence. Pelvic floor exercises may stop deterioration where mild uterovaginal prolapse is present. However, it is unlikely that there will be an improvement with regards to any prolapse if this is already present.

27. Answer **D** Vaginal hysterectomy
In this scenario symptoms of uterovaginal prolapse and menorrhagia may be improved by performing a vaginal hysterectomy. Vaginal hysterectomy is preferable to abdominal hysterectomy as this is associated with a shorter hospital stay and fewer complications.
28. Answer H Stop the combined oral contraceptive pill
The UK Medical Eligibility Criteria provide guidance for contraceptive use. Category 1 refers to a condition where there are no restrictions on contraceptive choice. In category 2 the advantages of a particular contraceptive option outweigh the disadvantages of using it. In category 3 the risks of a contraceptive option outweigh the benefits of using it. Category 4 refers to a condition where there is an unacceptable risk with an intervention. Use of the combined oral contraceptive pill is a category 4 intervention in the case of smoking ≥15 cigarettes/day, blood pressure ≥160/95, history of venous thromboembolism, protein C and S deficiencies, ischaemic heart disease, migraine with aura and current breast cancer.

29. Answer A Depo-Provera and condom use
The efficacy of the combined oral contraceptive pill, the progestogen-only pill and the progestogen-only implant may be reduced with antiretroviral drugs; therefore additional contraceptive cover is required. In women taking antiretroviral therapy, DMPA and intrauterine devices may be appropriate.

30. Answer C Continue using barrier contraception
In women >50 years, non-hormonal methods of contraception may be stopped after 1 year of amenorrhoea. In women <50 years, non-hormonal methods of contraception may be stopped after 2 years of amenorrhoea.

31. Answer C
Thyroxine-binding globulin levels increase during pregnancy. Venous return in the inferior vena cava may be compromised in late pregnancy in the supine position; pressure from the gravid uterus onto the inferior cava may be reduced by lying in the left lateral position. There is an increase in the minute ventilation during pregnancy due to an increase in tidal volume. Respiratory rate is unchanged during pregnancy. Gastrointestinal motility is decreased and constipation is common during pregnancy. Creatinine clearance is increased during pregnancy as a result of an increased glomerular filtration rate.

32. Answer B
All Rhesus D-negative women who give birth to a Rhesus-positive baby should be offered anti-D 72 hours after delivery. Sensitisation to the Rhesus antigen may occur after chorionic villus biopsy and external cephalic version. For routine antenatal prophylaxis NICE (2008; Pregnancy (rhesus negative women) – routine anti-D, TA156) recommends that two doses of anti-D immunoglobulin should be given at 28 and 34 weeks of gestation; alternatively a single dose may be given between 28 and 30 weeks of gestation (BNF).
33. Answer E

Female genital mutilation is a human rights and child protection issue. Late gynaecological complications of female genital mutilation include dyspareunia, chronic pain, recurrent UTIs, and urinary outflow obstruction. It is an offence for any person to excise or mutilate any part of the labia majora or clitoris of another person; no offence is committed if the surgery is related to labour or birth. Female genital mutilation committed against a permanent UK resident/UK national or abroad is prohibited by law in England, Scotland and Wales (RCOG, 2009; Green-top Guideline 50: Female genital mutilation and its management).

34. Answer E

Low molecular weight heparins may be used for antenatal thromboprophylaxis, but they should be stopped if there is vaginal bleeding and during labour. Low molecular weight heparins and warfarin are safe when breastfeeding. Low molecular weight heparins for 7 days after delivery should be considered for mothers with BMI >40 kg/m². Women with antiphospholipid syndrome should be offered thromboprophylaxis antenatally and for 6 weeks postpartum (RCOG, 2009; Green-top Guideline 37: Reducing the risk of thrombosis and embolism during pregnancy and the puerperium).

35. Answer C

According to the Rotterdam diagnostic criteria, polycystic ovary syndrome (PCOS) may be diagnosed if two out of three of the following criteria are present: oligomenorrhoea/amenorrhoea, clinical or biochemical signs of hyperandrogenism, polycystic ovaries on ultrasonography (defined as the presence of ≥12 follicles in at least one ovary). Other causes of oligomenorrhoea and amenorrhoea include premature ovarian failure, hypothyroidism and hyperprolactinaemia. Total testosterone level is normal to moderately elevated in women with PCOS. Luteinizing hormone (LH)/follicle-stimulating hormone (FSH) ratios are no longer considered useful in diagnosing PCOS (RCOG, 2007; Green-top Guideline 33: Long-term consequences of polycystic ovary syndrome).

36. Answer C

Primary postpartum haemorrhage (PPH) is the loss of ≥500 ml of blood from the genital tract up to 24 hours postnatally. Secondary PPH is abnormal or excessive bleeding from the genital tract between 24 hours and 12 weeks postnatally. The risk of PPH may be reduced by active management in the third stage of labour, therefore prophylactic oxytocics are given. Secondary PPH is often associated with endometritis (RCOG, 2009; Green-top Guideline 52: Prevention and management of postpartum haemorrhage). BMI >35 is a risk factor for PPH.
37. Answer E
Premenstrual syndrome (PMS) regularly occurs during the luteal phase of the menstrual cycle and symptoms disappear/significantly improve at the end of menstruation. Advice about stress reduction and exercise are helpful. The RCOG advise that continuous or luteal phase low dose selective serotonin re-uptake inhibitors as well as the combined oral contraceptive pill may be used as first line therapies in severe PMS (RCOG, 2007; Green-top Guideline 48: Management of premenstrual syndrome).

38. Answer B
In seronegative women who have been given the MMR (measles, mumps and rubella) vaccine postnatally, pregnancy should be avoided for 1 month (NICE, 2006; Postnatal care, CG37). In seronegative women who have been given the MMR vaccine postnatally, breastfeeding may continue. Newborn hearing screening takes place within 4–5 weeks, the newborn examination is performed within 72 hours, and the newborn blood spot test is usually carried out when the baby is 5–8 days old.

39. Answer A
The Department of Health recommends exclusive breastfeeding for the first 6 months of an infant's life. In the developed world, breastfeeding is not recommended in HIV-positive mothers. Breast infections are commonly caused by Staphylococcus aureus; breastfeeding may continue whilst receiving appropriate antibiotics for mastitis.

40. Answer B
Neonatal herpes is generally acquired as a result of contact with infected maternal secretions. For women presenting with a primary episode of genital herpes at the time of delivery or within 6 weeks of their due date, Caesarean section is recommended. For those women who decline Caesarean section, rupture of membranes should be avoided. For women presenting with a recurrent episode of genital herpes at the time of delivery, Caesarean section is not recommended. Neonatal herpes may be caused by herpes simplex viruses type 1 and 2 as either virus may cause genital herpes (RCOG, 2007; Green-top Guideline 30: Management of genital herpes in pregnancy).

41. Answer B
Recurrent miscarriage refers to the loss of three or more pregnancies. Peripheral blood karyotyping is helpful in investigating recurrent miscarriage. Women diagnosed with recurrent miscarriage should have a pelvic ultrasound scan. The RCOG (2003; Green-top Guideline 17: The investigation and treatment of couples with recurrent miscarriage) advises that women diagnosed with recurrent
miscarriage should not have routine thyroid function or glucose tests if they are asymptomatic. Screening for bacterial vaginosis with a history of preterm labour or 2nd trimester miscarriage may reduce the risk of further loss of pregnancy.

42. Answer E

If the placenta is partially or fully inserted into the lower segment of the uterus, placenta praevia is diagnosed. If the placenta overlies the cervical os, this represents a major praevia. Placenta praevia may be diagnosed on ultrasound scan, transvaginal ultrasound being more accurate than the transabdominal approach. Placenta praevia typically presents with the sudden onset of painless bleeding in the second or third trimester. Women with major placenta praevia who have previously bled should be managed as inpatients from 34 weeks of gestation. Advanced maternal age and previous Caesarean section are associated with an increased risk of placenta praevia (RCOG, 2005; Green-top Guideline 27: Placenta praevia and placenta praevia accreta: diagnosis and management).

43. Answer C

Serum iron decreases during pregnancy, transferrin and total iron binding capacity are increased. Alkaline phosphatase levels increase during pregnancy due to placental production whilst bilirubin levels decrease. Glomerular filtration rate is increased during pregnancy resulting in an increased creatinine clearance.

44. Answer A

Infertility refers to the failure to conceive after regular unprotected intercourse for 2 years in the absence of known reproductive pathology according to NICE (2004; Fertility, CG11). An assessment of ovulation may be made by taking a menstrual history and by measuring day 21 serum progesterone in a 28 day cycle as well as serum gonadotrophins. Lifestyle advice for couples wishing to conceive includes advising intercourse every 2–3 days, smoking cessation, keeping BMI <30, reducing alcohol intake and advising about recreational drug use (NICE, 2004; Fertility, CG11). Preconceptual care includes screening for rubella susceptibility, advising about folic acid use and cervical screening.

45. Answer E

Chlamydia is caused by an intracellular Gram-negative bacterium; it may be asymptomatic. Possible symptoms in women include vaginal discharge, lower abdominal pain, dyspareunia, intermenstrual or postcoital bleeding. Urethritis may be the presenting feature in men. Long-term complications include subfertility. It is an infection which may co-exist with other sexually transmitted infections. Chlamydial infection may result in urethritis, arthritis and conjunctivitis (Reiter’s syndrome). A urethral swab in a male may be used to diagnose Chlamydia, however, this has been superseded by nucleic acid amplification tests on first void urine samples. In women, a self-administered vaginal swab may be taken; however, if an internal examination is performed usually an endocervical swab is taken.
46. Answer B

Diabetic retinopathy can worsen rapidly during pregnancy. Retinal assessment for women with pre-existing diabetes should be performed after the first contact in pregnancy if it has not taken place in the last year. Retinal assessment for women with pre-existing diabetes should then be performed at 16–20 weeks if there is diabetic retinopathy. If there is no diabetic retinopathy, the next assessment should be at 28 weeks. Women with insulin-treated diabetes should be advised that there is increased lack of awareness of hypoglycaemia in pregnancy especially in the first trimester. Diabetes in pregnancy should be managed in a joint diabetes and antenatal clinic (NICE, 2008; Diabetes in pregnancy, CG63).

47. Answer B

The NHS Newborn Blood Spot Screening programme includes testing for sickle cell disease, medium-chain acyl-CoA dehydrogenase deficiency, cystic fibrosis, phenylketonuria and congenital hypothyroidism. The blood spots are taken by heel prick. If a baby is thought to have one of these conditions, further tests are required.

48. Answer E

Trichomonas vaginalis is a protozoan. It may present with vulval itching, dysuria, abdominal pain and an offensive smelling yellow frothy discharge in women. Dysuria and discharge may be the presenting features in men. It is usually treated with metronidazole. As it is a sexually transmitted infection, contact tracing is important.

49. Answer FFFF T

Bartholin’s glands are situated at the 4 o’clock and 8 o’clock position of the vestibule on either side of the vagina. The glands are not normally palpable. Bartholin’s cysts or abscesses occur in approximately 2% of women. They usually occur in women who are nulliparous or of low parity. Cysts usually present with a painless labial swelling. Abscesses present acutely with a painful unilateral labial swelling. Symptomatic cysts and abscesses may be treated by incision and drainage, marsupialisation or by insertion of a balloon catheter.

50. Answer FFFFF

Congenital adrenal hyperplasia (CAH) is an autosomal recessive condition that is caused by an enzyme deficiency in the pathway for cortisol or aldosterone synthesis. It is commonly caused by 21-hydroxylase deficiency which results in cortisol deficiency; there may also be aldosterone deficiency and androgen excess with this. Neonatal screening is possible, but it is not carried out as part of the national screening programme. Female babies may be identifiable as they may have ambiguous genitalia with an enlarged clitoris in classic CAH. Females with
salt-losing CAH are usually identified before a potential adrenal crisis. Males with salt-losing CAH may have no signs at birth and may therefore present with vomiting, failure to thrive or shock. Hyponatraemia, hyperkalaemia and/or hypoglycaemia may occur in adrenal insufficiency. Males that have a non-salt-losing form of this condition may present with virilisation at 2–4 years. Mild CAH in females may present later in childhood.

51. Answer **FTFTT**

There is an increased risk of genitourinary prolapse with advancing age, vaginal delivery, increased parity and obesity. Prolapse may present with a pressure sensation or fullness in the vagina, urinary symptoms, dyspareunia, constipation as well as incontinence.

52. Answer **FFTFF**

If haemoglobin is <10.5 g/dl antenatally and there is no evidence of haemoglobinopathy, haematinic deficiency should be considered. Oral iron should be used first-line for iron-deficiency anaemia. Parenteral iron may be considered if oral iron is not tolerated. Pregnant women should have their blood group and antibody status checked at booking and at 28 weeks. Blood loss may be minimised during labour by active management of the third stage.

53. Answer **FTFFFF**

The risk of serious complications arising from diagnostic hysteroscopy is approximately 2 women in every 1000, according to the RCOG (2008; Diagnostic hysteroscopy under general anaesthesia (Consent Advice 1)). The risks associated with diagnostic hysteroscopy include uterine perforation, bladder or bowel damage and failure to instrument the uterus. Infection and bleeding are risks that occur more frequently.

54. Answer **FFFTF**

Ovarian cysts occur commonly in postmenopausal women. The RCOG recommend that ovarian cysts should be evaluated by transvaginal ultrasonography and CA125 levels (RCOG, 2003; Green-top Guideline 34: Ovarian cysts in postmenopausal women). Simple unilateral cysts that are <5 cm diameter are considered to be at low risk of malignancy. Women presenting with postmenopausal bleeding and not taking hormone replacement therapy, and those on tamoxifen with postmenopausal bleeding, should be referred urgently under the 2 week wait rule for further investigation. Women with persistent or unexplained postmenopausal bleeding after stopping hormone replacement therapy for 6 weeks should be referred urgently under the 2 week wait rule for further investigation (NICE, 2005; Referral for suspected cancer, CG27).
55. Answer **FFFTT**

If a woman is taking the combined oral contraceptive pill, menstruation may be delayed by taking the next pack directly and omitting the pill-free interval. Alternatively norethisterone may be used to delay menstruation. This is usually taken 3 times/day approximately 3 days before the onset of menstruation is expected. Menstruation usually occurs 2–3 days after stopping norethisterone. Side effects of norethisterone include bloating and breast tenderness.

56. Answer **FTFFF**

Ovarian torsion usually occurs in an enlarged ovary. Women undergoing induction of ovulation as part of infertility treatment are at increased risk of ovarian torsion. Ovarian tumours, previous history of pelvic surgery and pregnancy may be associated with ovarian torsion. Delayed diagnosis results in infarction and subsequent necrosis. Torsion typically presents with sudden, severe, unilateral abdominal pain which may be associated with nausea and vomiting. The differential diagnosis includes ectopic pregnancy, pelvic inflammatory disease and appendicitis.

57. Answer **TFTFF**

Routine universal antenatal screening for HIV is a part of antenatal care in developed countries. Sexual health screening is advisable in a high risk patient. According to the RCOG (2010; *Green-top Guideline 39: Management of HIV in pregnancy*), women with a detectable plasma viral load and/or who are not taking HAART should be offered elective Caesarean section to reduce the likelihood of vertical transmission. If a woman chooses to undergo a vaginal delivery after being appropriately counselled, artificial rupture of membranes and invasive procedures such as application of fetal scalp electrodes should be avoided. It is recommended that live vaccines such as MMR are avoided during pregnancy as there is a theoretical risk of fetal infection.

58. Answer **FTFFT**

90% of the antenatal population in the UK are seropositive for varicella zoster virus (VZV) immunoglobulin antibody. If a pregnant woman not immune to VZV has been exposed, immunoglobulin may be given up to 10 days after contact (RCOG, 2007; *Green-top Guideline 13: Chickenpox in pregnancy*). Varicella vaccine contains live attenuated virus and should be avoided during pregnancy. Pregnancy should be avoided for 3 months in a woman of reproductive age who has received the varicella vaccine. If chickenpox occurs in the first trimester, the risk of spontaneous miscarriage is not increased. However, if varicella infection occurs in the first 28 weeks of pregnancy there is a risk of fetal varicella syndrome.
59. Answer TTTTF

Management of ectopic pregnancy may involve salpingectomy or salpingostomy which may be performed both by laparoscopy or laparotomy. If the Fallopian tube is irreparably damaged or diseased, salpingectomy is the preferred procedure as there is a significant risk of recurrence of ectopic pregnancy in that tube. Methotrexate therapy may be appropriate for women with minimal symptoms and serum hCG <3000 IU/l. Women managed expectantly should have hCG measurements twice weekly and transvaginal ultrasound scans weekly; this may be done on an outpatient basis. Women with suspected ectopic pregnancy who are Rhesus negative should be given anti-D immunoglobulin.

60. Answer FTFFT

A congenital diaphragmatic hernia is caused by the diaphragm not fusing during fetal development; this often leads to a posterolateral defect. This condition results in pulmonary hypertension and hypoplasia as well as surfactant dysfunction. Most cases are diagnosed prenatally. Left-sided hernias allow herniation of the large and small bowel in the thoracic cavity. Right-sided hernias allow the liver and sometimes the large bowel to enter the thoracic cavity.

61. Answer TFFTT

Metronidazole may be used in pregnancy but the manufacturer advises avoiding high dose regimens. It is advised that quinolones are avoided during pregnancy as other antibiotics may be used more safely. Quinolones have been shown to cause arthropathy in animal studies. Trimethoprim should be avoided during pregnancy according to the manufacturer; there is a teratogenic risk in the first trimester. Azithromycin may be used in pregnancy but the manufacturer advises its use only if there are not suitable alternatives.

62. Answer FFFFF

The Centre for Maternal and Child Enquiries produces triennial reports on enquiries into maternal deaths. The most recent report was for 2006–2008 which was published in 2011. Maternal mortality refers to deaths of pregnant women as well as those 42 days postpartum. Direct deaths refer to those attributable to pregnancy or birth. The commonest cause of direct death was infection; many of these deaths were from community-acquired Group A streptococcal disease in 2006–2008. Indirect deaths are caused by pre-existing or new medical or mental health conditions exacerbated by pregnancy. The leading cause of indirect death was cardiac disease. The enquiry revealed that women who died had poorer health overall, were smokers and had a BMI >25.

63. Answer TFFFF

Toxic shock syndrome (TSS) occurs when toxin-secreting Staphylococci and Streptococci activate an inflammatory response. Risk factors include tampon
use, gynaecological infections, postpartum sepsis and uterine packing after postpartum haemorrhage. TTS usually manifests with fever, a diffuse or erythrodermic rash, hypotension, vomiting and diarrhoea.

64. Answer FTFTF

Advanced maternal age, a family history of dizygotic twins and infertility treatment such as ovulation induction are associated with multiple pregnancy. Race may be associated with multiple pregnancy, for example, the incidence of multiple pregnancy is higher in Africa compared to the incidence in Asia.

65. Answer FFFFT

Peripartum cardiomyopathy refers to the development of cardiac failure in the last month of pregnancy up to 5 months postpartum. Most cases present within the first month postpartum. Before the last month of pregnancy there is generally no evidence of heart disease. Advancing maternal age and multiparity are risk factors. Shortness of breath on exertion and ankle oedema may be associated with peripartum cardiomyopathy as well as the later stages of pregnancy. Peripartum cardiomyopathy may cause chest pain, cough and paroxysmal nocturnal dyspnoea. This condition is a dilated cardiomyopathy that causes left ventricular dysfunction.

66. Answer TTTFF

Screening may take place for an important clinical condition with an early asymptomatic stage where there is a benefit in early detection. The test as well as the proposed treatment carried out should be validated and acceptable to those being screened. Both of these should be clinically and ethically acceptable to the public as well as healthcare professionals. There should be evidence that early detection and therefore early treatment is beneficial when compared with late management of the condition. Screening to allow identification of an important clinical condition should result in a reduction of morbidity and mortality.

67. Answer TFTTT

Smoking and age over 35 years would be an absolute contraindication to the combined oral contraceptive pill. If two of the following risk factors for arterial disease are present, the combined oral contraceptive pill should be avoided: family history of arterial disease in a first degree relative aged under 45 years, diabetes, hypertension, smoking, age >35 years, obesity and migraine (BNF).

If two of the following risk factors for venous thromboembolism are present, the combined oral contraceptive pill should be avoided: family history of venous thromboembolism in a first degree relative aged under 45 years, known coagulation abnormality, obesity, immobility, history of superficial thrombophlebitis, age >35 years and smoking (BNF).
68. Answer FFTTF

The absolute risk reduction (ARR) refers to the difference between the risk of an event in the control group and the risk of the event in the intervention group. The number needed to treat (NNT) refers to how many people need to have an intervention for one person to benefit from it. The NNT may be calculated as the inverse of the absolute risk reduction. A positive predictive value is obtained by calculating the proportion of people who have a positive test result who actually have the disease. The relative risk evaluates how many times more likely it is that an event will occur in the intervention group when compared with the control group. If the relative risk is 1 there is no difference between the intervention and the control group.

69. Answer FTTFF

If a woman dies during pregnancy or up to 42 days postpartum from an obstetric cause or a cause exacerbated by pregnancy, this may be classified as a maternal death. A direct maternal death results from an obstetric complication of pregnancy, this may be postpartum. An indirect maternal death refers to a death attributable to a previous medical condition or a condition that developed during pregnancy that is not due to an obstetric cause. An indirect cause of maternal death may have been exacerbated by being pregnant. A neonatal death is where a live-born baby dies before 28 completed days. The number of neonatal deaths per 1000 live births is the neonatal death rate. The perinatal mortality rate refers to the number of stillbirths and neonatal deaths per 1000 live and stillbirths.

70. Answer FFTFF

Androgen insensitivity syndrome is a rare X-linked condition which may be partial or complete. Masculinisation of the external genitalia does not occur due to the loss of function mutation in the androgen receptor gene in a chromosomally male patient and therefore there is phenotypic female development. Patients with androgen insensitivity syndrome have normal testes. The testes produce anti-Mullerian hormone, this prevents development of the Fallopian tubes, uterus and upper vagina. This condition may present with primary amenorrhoea.

71. Answer FFFFT

Kruckenberg tumours are metastatic ovarian tumours that usually arise from stomach and colon malignancies. The stomach is the commonest primary site. Most tumours are bilateral and occur through lymphatic spread. Signet ring cells are typically found on histology.

72. Answer TFFFF

Cervical screening may be postponed by 3 months following pregnancy if there is a normal smear history. The cervical screening programme recommends that
cervical screening is best performed mid-cycle. Women who have never been sexually active have a very low risk of cervical cancer. Women in a same-sex relationship are at low risk of cervical cancer; nevertheless, cervical screening is still recommended for both these groups. Women may attend their GP surgery or family planning / sexual health clinic for cervical screening.

73. Answer **TTFTT**

The risk of perinatal transmission of HIV can be minimised by preventing infant exposure to maternal blood and secretions. According to the RCOG (2010; *Green-top Guideline 39: Management of HIV in pregnancy*), women with a detectable plasma viral load and/or who are not taking HAART should be offered an elective Caesarean section to reduce the likelihood of vertical transmission. If a woman chooses to undergo a vaginal delivery after being appropriately counselled, artificial rupture of membranes and invasive procedures such as application of fetal scalp electrodes should be avoided. Episiotomy may increase the exposure of the infant to HIV during delivery and increase the risk of transmission (RCOG, 2010). Women should be advised to avoid breastfeeding even if taking antiretroviral therapy to avoid postnatal transmission. In the developing world this clearly depends on the availability and affordability of formula milk. Zidovudine prophylaxis is usually administered to the neonate.

74. Answer **TFTTF**

Tranexamic acid, which inhibits fibrinolysis, may be used for menorrhagia and mefenamic acid may be used to reduce inflammatory pain and uterine contractions. These treatments are useful when fibroids are relatively small and if periods are heavy and painful. Gonadotrophin-releasing hormone (GnRH) analogues are mainly used pre-operatively to reduce the size of the fibroids. If fibroids are mainly intracavity/submucosal, they may be resected hysteroscopically with good long-term results for fertility and menorrhagia. Uterine artery embolisation involves occluding the uterine arteries, usually with polyvinyl alcohol beads using a transfemoral approach (under local anaesthesia and light sedation), thereby impairing blood supply to the fibroids and causing shrinkage and necrosis over a few weeks. The risk of fibroid recurrence ranges from 15 to 30%.

75. Answer **TFFFT**

Cytomegalovirus (CMV) is the most common congenitally acquired infection; it is a DNA virus that is part of the herpes family. The virus may be found in breast milk, cervical secretions, saliva and blood products. CMV infection during pregnancy may cause intrauterine growth restriction. In 10% of fetuses with congenital infection it may also cause retinitis, hepatosplenomegaly, sensorineural hearing and visual loss. There is a risk for long term sequelae in those that are asymptomatic at birth.
76. Answer TFTTT

AEDs that do not affect the efficacy of the combined oral contraceptive pills include: gabapentin, levetiracetam, lamotrigine and valproate. However, it is known that lamotrigine clearance is increased in the presence of combined oral contraceptive pills and progestogen derivatives. This would reduce the efficacy of contraception and seizure control. The progestogen-only pill is not recommended by manufacturers as the efficacy is reduced with enzyme-inducing AEDs. However, DMPA is unaffected by liver enzyme-inducing drugs. The copper intrauterine device and the Mirena (levonorgestrel-releasing intrauterine system) coil are potential options for women on enzyme-inducing medications.

77. Answer TTTTF

Those women with a previous pregnancy complicated by severe pre-eclampsia have a high risk of recurrence in subsequent pregnancies for any type of pre-eclampsia. Risk factors include: age less than 20 years or more than 35 years, black race and BMI >35 kg/m².

78. Answer FTFFT

Bladder or ureteric injury and emergency hysterectomy are rarely occurring risks during Caesarean section. There is an increased risk of uterine rupture and placenta praevia in subsequent pregnancies following Caesarean section. There is an increased risk of Caesarean section when vaginal delivery is attempted following a previous Caesarean section.

79. Answer TTTTT

Fetal alcohol syndrome may be associated with characteristic facial anomalies, intrauterine growth restriction as well as cognitive impairment or learning disabilities. Alcohol withdrawal in neonates is uncommon but may present with agitation, tremors and seizures. The diagnosis of fetal alcohol syndrome may be delayed; it may present later with behavioural and cognitive problems.

80. Answer TFFFT

Lithium therapy during pregnancy is associated with an increased risk of cardiac defects. High levels of lithium are found in breast milk and lithium therapy should be avoided if possible during pregnancy, especially in the first trimester. However, lithium therapy may be continued despite the increased risk of cardiac defects if a woman is at high risk of relapse. Women taking lithium therapy should deliver in hospital because of the risk of dehydration and lithium toxicity (NICE, 2007; Antenatal and postnatal mental health, CG45).
81. Answer TTFFFF

According to the BNF, HRT should be stopped if there is severe chest pain, suspicion of deep vein thrombosis or pulmonary embolus, severe abdominal pain, severe headache with neurological symptoms, jaundice, prolonged immobility post-operatively and blood pressure >160 systolic or >95 diastolic.

82. Answer FFTFFF

Multiple pregnancies are associated with an increased risk of prematurity as well as an increased risk of congenital abnormalities when compared with singleton pregnancies. Multiple pregnancies are associated with an increased rate of maternal complications such as pre-eclampsia, anaemia, polyhydramnios and hyperemesis gravidarum. Furthermore, delivery may be complicated by an increased risk of malpresentation, operative delivery, placental abruption and cord prolapse.

83. Answer TFFTT

The following medications may cause galactorrhoea: metoclopramide, phenothiazines, risperidone, selective serotonin reuptake inhibitors, tricyclic antidepressants and cimetidine.

84. Answer TFTTF

There is an increased risk of placental abruption in women with a previous history of placental abruption, increased maternal age, hypertension, abdominal trauma, cigarette smoking, cocaine use and prolonged rupture of membranes. It is thought that cocaine use increases the risk of placental abruption by causing vasospasm.

85. Answer TFFFT

It is recommended that live vaccines are avoided during pregnancy as there is a theoretical risk of fetal infection (if there is significant exposure to a disease the benefits of vaccination may outweigh the risks). Inactivated vaccines may be given to pregnant women if protection is needed without delay. Haemophilis influenza type B (Hib) and meningococcal vaccines may be given during pregnancy. Yellow fever, BCG and MMR are live vaccines.

86. Answer FTFTT

Bacterial vaginosis (BV) may be diagnosed if at least 3 out of the 4 Amsel criteria are met. The Amsel criteria include: thin white discharge, clue cells on microscopy, pH of vaginal fluid >4.5 and release of a fishy odour on addition of 10% potassium hydroxide. Oral metronidazole, intravaginal metronidazole gel or clindamycin cream may be used to treat symptomatic women.
87. Answer **TFFFF**

Urinary tract infections (UTIs) may be treated with cephalosporins during pregnancy. Nitrofurantoin may be used to treat UTIs during pregnancy, but it is best avoided at term due to the risk of neonatal haemolysis. Breastfeeding should also be avoided in mothers taking nitrofurantoin because of the risk of neonatal haemolysis in glucose-6-phosphate dehydrogenase deficiency. Manufacturers of trimethoprim recommend avoiding it in pregnancy. There is a teratogenic risk with trimethoprim in the first trimester as it is a folate antagonist. Ciprofloxacin is best avoided during pregnancy as there are alternative regimens available for the treatment of UTIs.

88. Answer **FFTFT**

5-alpha-reductase deficiency is an autosomal recessive condition where testosterone is not converted to dihydrotestosterone. Dihydrotestosterone is needed for the masculinisation of the external genitalia in males. 5-alpha-reductase deficiency results in chromosomally male patients having ambiguous genitalia. Patients with this condition have normal testes that produce anti-Mullerian hormone and so the Fallopian tubes, uterus and the upper vagina do not develop. The epididymis, vas deferens and seminal vesicles are present. It may be difficult to distinguish androgen insensitivity syndrome from 5-alpha-reductase deficiency clinically. A child with 5-alpha-reductase deficiency may begin to virilise rather than feminise in puberty.