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# Mastering Single Best Answer Questions for the Part 2 MRCOG Examination: An Evidence-Based Approach

## MOCK EXAMINATION

### Paper 1

Candidates completing this paper should set a time limit of 70 minutes to replicate exam conditions. Use the supplied answer sheet to record your answers.

#### 1.

According to the Birthplace study 2011 regarding the place of birth:

What percentage of women who chose to have a home birth was transferred to hospital?

- A. 0%–10%
- B. 11%–20%
- C. 21%–30%
- D. 31%–40%
- E. 41%–50%

#### 2.

A 34-year-old woman in her second pregnancy presents to the labour ward at 39 weeks with painful uterine contractions every 3 minutes. Vaginal examination shows the cervix to be 6 cm dilated and effaced; the head is 3 cm above the ischial spines, the membranes are absent. You could feel the anterior fontanel easily and the supraorbital ridges. Fetal heart rate is normal. Her first pregnancy ended in a normal uncomplicated vaginal delivery.

Which of the following is the best management option?

- A. Augmentation with oxytocin
- B. Grade 1 Caesarean section
- C. Grade 2 Caesarean section
- D. Reassess in 2 hours' time
- E. Reassess in 4 hours' time

### 3.

A 36-year-old woman who had previously undergone 3 Caesarean sections was booked for repeat elective Caesarean section at 39 weeks. She declined tubal ligation as she wishes to have more children.

What is her risk of placenta praevia in her next pregnancy?

- A. 1.1%
- B. 2.8%
- C. 7.5%
- D. 11%
- E. 60%

### 4.

A 32-year-old woman had a forceps delivery due to maternal exhaustion. All her observations are normal, and the placenta is delivered complete. Perineal examination revealed a torn external anal sphincter to about 80%. She is counselled, consented, and taken to theatre for repair.

Which techniques do you recommend to accomplish the repair of the external anal sphincter?

- A. End-to-end method using 3/0 PDS
- B. End-to-end method using 2/0 PDS
- C. End-to-end method using 3/0 vicryl
- D. Overlapping method using 2/0 vicryl
- E. Overlapping method using 3/0 PDS

### 5.

A primigravida who has anti-Ro antibodies attends antenatal clinic. She asks you about the risk of her baby having congenital heart block (CHB).

You tell her the risk is:

- A. 2%
- B. 5%
- C. 10%
- D. 20%
- E. 50%

### 6.

A 26-year-old woman with sickle cell disease (SCD) is admitted at 18 weeks with symptoms of chest pain, tachypnoea, cough and shortness of breath. On her chest X-ray, there is a new infiltrate throughout the lung fields.

What is the most likely diagnosis?

- A. Acute chest syndrome
- B. Acute pulmonary embolus

- C. Dissecting aortic aneurysm
- D. Myocardial infarction
- E. Pneumonia

## 7.

There is an urgent need to address pre-pregnancy care and weight management programmes to prevent the increase in prevalence of obesity in pregnancy, as well as to ensure that appropriate services are in place to reduce the inequalities in pregnancy outcomes for these women.

According to the most recent results of the UK Obstetric Surveillance System (UKOSS) studies, what is the proportion of the women giving birth in the UK who are extremely obese (BMI >50)?

- A. 1:500
- B. 1:1000
- C. 1:1500
- D. 1:2000
- E. 1:2500

## 8.

You are in the emergency department when a 28-year-old woman who is 25 weeks pregnant presents with a cardiac arrest.

At what stage should you commence a perimortem Caesarean section?

- A. After 4 minutes of cardiopulmonary resuscitation (CPR) if it has not been successful.
- B. After 10 minutes of CPR if it has not been successful.
- C. After the anaesthetist has inserted the endotracheal tube.
- D. After the hand-held Doppler has confirmed fetal viability.
- E. At the same time as starting CPR.

## 9.

What is the most common cardiac cause of late maternal death in the UK in the latest Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK (MBRRACE-UK) 2015 report?

- A. Acute myocardial infarction
- B. Aortic dissection
- C. Cardiomyopathy
- D. Mitral valve thrombosis
- E. Sudden arrhythmia death syndromes (SADS)

## 10.

A woman who is 20 weeks pregnant and has just arrived from an Asian country attends antenatal clinic. Her hepatitis B screening test shows she is hepatitis B surface antigen (HBsAg)-negative and hepatitis B e antigen (HBeAg)-positive.

What is the risk of vertical transmission to the baby?

- A. 5%–10%
- B. 15%–20%
- C. 25%–40%
- D. 40%–60%
- E. 70%–90%

**11.**

A general practitioner phones you about a woman who is 24 weeks pregnant and has developed mild signs and symptoms of chicken pox in the last 24 hours. He wants to know what treatment he should offer her.

What advice will you give him?

- A. Offer her oral administration of 800 mg acyclovir five times a day for 7 days
- B. Offer oral acyclovir administration only if her condition worsens
- C. Start varicella vaccination
- D. Send her to hospital to receive varicella zoster immunoglobulin (VZIG)
- E. Start both antiviral therapy and VZIG

**12.**

An 18-year-old woman books her pregnancy at 26 weeks' gestation. She is a smoker and lives in a hostel. At her first ultrasound scan, the fetus is found to have gastro-schisis and a cleft lip and palate.

What is the most likely cause of these fetal abnormalities?

- A. Amphetamine use
- B. Cannabis use
- C. Crack cocaine use
- D. Benzodiazepine use
- E. Heroin use

**13.**

You work as an ST5 in an inner city hospital. You are asked to discuss the high incidence of the teenage pregnancy with the local school administration to see how it may be possible to prevent and reduce teenage pregnancy.

What is the primary prevention management that you may propose?

- A. Advise the arrangement of a series of presentations for sexual education of the school girls
- B. Advise that administration will dismiss any girl who becomes pregnant
- C. Advise a school survey for those who have unprotected sex and refer them to a contraception clinic
- D. School administration should talk to parents about preventing their children from having sex
- E. Set up a contraception clinic in the school

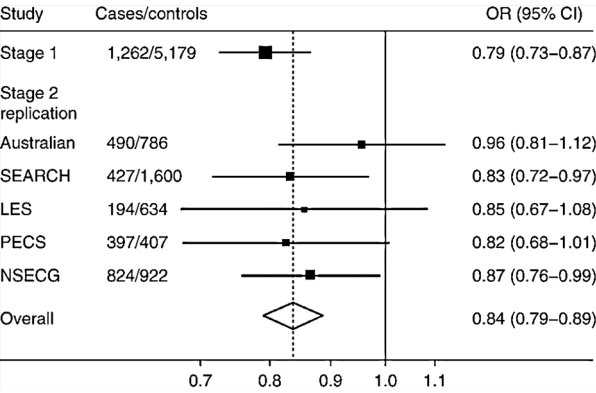
**14.**

1000 women were recruited in a randomised controlled study to compare the prevalence of side effects in two medications for the treatment of nausea and vomiting of pregnancy. The variables for the control group, 400 women, are normally distributed with a mean of 36 ( $SD=8$ ).

What is the standard error of the mean (SEM) for the variables of the control group?

- A. 0.1
- B. 0.2
- C. 0.3
- D. 0.4
- E. 0.5

15.



The forest plot diagram illustrates a study that has been done to identify a common genetic variant associated with risk of endometrial cancer.

What is the overall conclusion of the study?

- A. P-value most probably <0.001
- B. P-value most probably <0.05
- C. P-value most probably <0.1
- D. P-value most probably <0.1%
- E. P-value most probably <5%

16.

You are called to the labour ward urgently because a newborn has not started breathing after 55 seconds. The heart rate was 100 bpm. It was a normal vertex vaginal delivery with no risk factors.

What are your first-line resuscitation methods?

- A. Drying and/or blowing oxygen over the face
- B. Immediate intubation
- C. Immediate admission to the neonatal intensive care unit
- D. Start cardiac compression
- E. Start mouth-to-mouth breathing

17.

A researcher has developed a new prenatal screening test for Downs syndrome. Following the appropriate approval from the Regional ethics committee and the women’s consent, 2000 pregnant women were randomly allocated to one of 2 different groups. The women were considered to be at low risk for a pregnancy affected by Downs syndrome. The following table shows the number of women in each group who did and who did not have babies affected by Downs syndrome:

	Screen Positive	Screen Negative
Baby affected by Downs syndrome	800	200
Baby not affected by Downs syndrome	400	600

What is the positive predictive value of this test?

- A. 20%
- B. 40%
- C. 60%
- D. 80%
- E. 100%

### 18.

You are supervising an ST2 performing an elective Caesarean section for breech presentation. He makes a small laceration on the baby's right buttock when incising the uterus. It is not actively bleeding and is approximately 1.5 cm in length and superficial. The ST2 is extremely upset about this complication.

What is the single most appropriate next step?

- A. Ask the ST2 to go and explain it to the parents in recovery as it was their complication
- B. Fill in an incident form and notify the delivery suite manager
- C. Go to the parents with the junior doctor, explain and apologise about the complication and document it in the notes
- D. Reassure your colleague that it is a non-significant complication and it happens to everyone
- E. Tell the paediatrician and ask him/her to highlight it to the parents at the baby check

### 19.

You have a keen interest in medical education. You have been an ST5 grade at the Trust for six months and have noticed that there is a lack of departmental teaching on up-to-date RCOG and NICE guidance. You have some ideas about trying to institute changes to the departmental teaching sessions.

Who is the single most appropriate person to speak to about your ideas?

- A. Clinical director
- B. College tutor
- C. Educational supervisor
- D. Training programme director
- E. Undergraduate lead for education

### 20.

A pregnant woman attends antenatal clinic at 12 weeks. She has systemic lupus erythematosus (SLE). Her disease is well controlled and she has not had a flare-up for 6 months. She asks about her risk of a flare-up of SLE in pregnancy.

You tell her that

- A. Pregnancy reduces the risk of a flare-up of her SLE
- B. She has a 5%–10% increased risk of a flare-up in pregnancy
- C. She has a 25%–60% increased risk of a flare-up in pregnancy
- D. She has a 60%–80% increased risk of a flare-up in pregnancy
- E. There is no increased risk above her background risk

### 21.

The UK Obstetric Surveillance System (UKOSS) was established in 2005.

What is the objective of setting up this system?

- A. To allow better understanding of the causes of maternal mortality
- B. To supply preventive measures for the different causes of maternal mortality
- C. To develop a system to investigate the uncommon disorders of pregnancy
- D. To offer another format of maternal mortality
- E. To offer a learning tool to assess maternal mortality

**22.**

A woman has just had her 20 weeks scan. The right hand of her baby is missing. The woman asks for termination of pregnancy.

Based on the UK Abortion Act, passed in 1967 and amended in 1990, which ground will support her request?

- A. Ground A
- B. Ground B
- C. Ground C
- D. Ground E
- E. None

**23.**

A woman who is 28 weeks pregnant has been referred by her community midwife who suspects that the baby is small. An ultrasound scan shows the abdominal circumference and estimated fetal weight below the 10th centile. The umbilical artery Doppler pulsatility index (PI) is on the 95th centile with positive end diastolic flow. The amniotic fluid volume is on the 10th centile.

What further management you would like to suggest?

- A. Advise adding middle cerebral artery Doppler to help in planning delivery
- B. Advise delivery after complete single steroid course
- C. Daily CTG
- D. Repeat scan daily
- E. Repeat scan in 2 weeks' time

**24.**

A pregnant woman has had her anomaly scan at 20 weeks. The fetal head circumference is normal but abdominal circumference is below the 5th centile. The scan shows a muscular ventricular septal defect.

What further management you would like to offer?

- A. Fetal karyotyping
- B. Serial growth and umbilical artery Doppler scans from 26 to 28 weeks
- C. Third trimester growth and Doppler scan
- D. Termination of pregnancy
- E. Uterine artery Doppler at 24 weeks

**25.**

A 32-year-old nulliparous woman sees you in the antenatal clinic at 22 weeks' gestation. She just had a transvaginal scan that showed the cervix to be 22 mm in

length. She has a past history of a cone biopsy of the cervix 6 years ago, with normal follow-up smears.

Which of the following options would you recommend for her?

- A. Cervical cerclage surgery
- B. Follow-up scan in 1 week
- C. Follow-up scan in 2 weeks
- D. Rectal progesterone tablets
- E. Vaginal progesterone tablets

## 26.

A 32-year-old primigravida is in labour at term. She was started on an oxytocin infusion 4 hours previously because of slow progress. There is clear liquor draining. The CTG shows 5 contractions every 10 minutes, a baseline fetal heart rate of 155 bpm, variability of 5–10 bpm, early decelerations in more than 50% of the contractions, and occasional accelerations over the last 90 minutes. Vaginal examination shows the head to be 1 cm above the ischial spines, in a right occipitoposterior position and the cervix is 7 cm dilated. She has progressed 3 cm over the last 4 hours.

Which of the following options would be most appropriate for her management?

- A. Book for grade 2 Caesarean section
- B. Fetal blood sampling
- C. Reassure and examine in 4 hours
- D. Reduce syntocinon
- E. Stop syntocinon

## 27.

A pregnant woman has just had her booking bloods at 12 weeks, which show anti-D antibodies of 3 IU/ml. She had previous termination of pregnancy at the age of 15. Her partner's rhesus group is heterozygous (Dd).

What is the most appropriate initial management?

- A. Check maternal antibodies every 2 weeks
- B. Check maternal antibodies every 4 weeks
- C. Maternal blood for cell-free fetal DNA for fetal blood group
- D. Offer routine antenatal anti-D prophylaxis (RAADP)
- E. Refer to fetal medicine unit

## 28.

You have recently started working at a new Trust as an ST3 grade. A woman with threatened preterm labour arrives at 29 weeks' gestation. In the hospital guideline for the management of preterm labour, you notice that the first-line drug choice is nifedipine. You have not previously used this drug for tocolysis. When you consult the British National Formulary (BNF), you note that nifedipine is not licensed for this use.

What is the most appropriate course of action?

- A. Contact the on-call pharmacist for advice
- B. Omit the tocolysis and just prescribe steroids
- C. Prescribe atosiban instead as you are more familiar with it
- D. Prescribe the nifedipine but explain to the patient it is unlicensed and document this
- E. Refuse to prescribe nifedipine as it is unlicensed



**29.**

A 33-year-old woman in her fifth pregnancy has just delivered a healthy baby weighing 4 kg, with the assistance of a midwife. Upon delivery of the placenta there was excessive blood loss and the midwife feels a lump in the vagina. You arrive and diagnose an acute uterine inversion. The patient is stable and you are attempting to replace the uterus, but the cervix is tightly contracted, preventing the fundus of the uterus from being repositioned.

What is your next step?

- A. Examination under anaesthesia and manual placental separation
- B. Examination under anaesthesia and hydrostatic replacement
- C. Laparotomy and supravaginal hysterectomy
- D. Laparotomy and Huntington's operation
- E. Laparotomy and Haultain's operation

**30.**

A 29-year-old woman in her third pregnancy attends the obstetric day unit with persistent vomiting. She is known to have type 2 diabetes and does not recall how much insulin she is taking. On examination, she has a respiratory rate of 22 breaths/min, she is tachycardic (110 bpm) and appears dehydrated. She is apyrexial. You perform an arterial blood gas.

Which of the following are you likely to find?

Answer	pH	pO <sub>2</sub> (mmHg)	pCO <sub>2</sub> (mmHg)	HCO <sub>3</sub> (mEq/L)
A	7.25	129	16	9
B	7.37	80	20	18
C	7.42	90	15	19
D	7.46	99	13	10
E	7.49	129	10	9

**31.**

With regard to MBRRACE-UK 2009–2012, which of the following is true:

- A. 1:10 of women who died had influenza
- B. Around 25% of maternal deaths were due to sepsis
- C. 40% of women who died did not receive a minimum level of antenatal care
- D. 60% of women who died of influenza were vaccinated women
- E. Thrombosis and thromboembolism were the second leading cause of maternal death

**32.**

A 39-year-old woman presents with right upper quadrant pain and polydipsia in the third trimester. She appears jaundiced and tells you that she has been vomiting for two days. On examination, she has a body mass index (BMI) of 35 and bloods show a raised alanine transaminase (ALT) with hyperuricemia. Her creatinine is normal and she shows a mild leucocytosis. Her BP is 149/100 mmHg and she has 3+ proteinuria.

Which of the following is most likely the cause of her clinical picture?

- A. Acute fatty liver of pregnancy (AFLP)
- B. Diabetic ketoacidosis (DKA)
- C. Hepatitis

- D. Obstetric cholestasis
- E. Pre-eclampsia (PET)

**33.**

A woman who is 35 weeks pregnant is diagnosed with primary genital herpes. She received aciclovir treatment but was reluctant to accept Caesarean section delivery.

What are the risks of the baby developing neonatal herpes if she has a vaginal delivery?

- A. 10%
- B. 17%
- C. 35%
- D. 41%
- E. 61%

**34.**

A woman who is 14 weeks pregnant has screened positive for HIV infection. She agrees to start combined antiretroviral therapy (cART).

When would you test her viral load in order to monitor her adherence to treatment?

- A. At the beginning of treatment and at delivery
- B. 4 weeks after initiation of treatment
- C. At 36 weeks
- D. At 38 weeks as it is cost effective
- E. 2–4 weeks after commencing cART, at the second and third trimester, at 36 weeks, and at delivery

**35.**

A woman attends her 18–20 weeks scan. The sonographer has demonstrated 'lemon-and-banana' sign and the baby is diagnosed with Arnold–Chiari syndrome.

What is the 'lemon-and-banana' sign?

- A. Congenitally malformed thalamus
- B. Deformed cerebellum
- C. Deformed skull
- D. Malformed cerebellum
- E. Open spine bifida

**36.**

A pregnant woman has just had her 12 weeks scan. She is diagnosed with dichorionic diamniotic twin pregnancy. She asks about the chance of delivering them prematurely.

What proportion of all twins deliver before 37 weeks?

- A. 25%
- B. 30%
- C. 40%
- D. 50%
- E. 60%

**37.**

A woman in her first pregnancy, presents with decreased fetal movements for 24 hours. She is 34 weeks pregnant. A non-stress CTG shows the fetal heart rate is 180

bpm, variability is 3 beats and there are unprovoked persistent decelerations for the previous 20 minutes.

What is the most appropriate management option?

- A. Admit to the labour ward and repeat CTG in an hour
- B. Category 1 Caesarean section
- C. Category 2 Caesarean section
- D. Induction of labour with prostaglandin
- E. Reassure and discharge

### 38.

The community midwife called you to ask about one of her nursing mothers. Her baby has developed jaundice at 3 weeks of life and his bilirubin level is 210 mmol/L. The baby is exclusively breastfed and seems in good health. She asks your advice about breastfeeding.

What will you tell her?

- A. Combine breastfeeding with formulafeeding
- B. Continue breastfeeding at a 3-hour interval
- C. Continue breastfeeding but increase the frequency to 10–12 times a day
- D. Stop breastfeeding completely
- E. Stop breastfeeding until the bilirubin drops to 216 mmol/L

### 39.

You have just delivered a baby at 32 weeks' gestation. He was breathing and did not seem to require positive pressure ventilation.

When should you clamp the cord in order to reduce the need for blood transfusions and increase iron stores?

- A. After 3 minutes
- B. After 4 minutes
- C. After 5 minutes
- D. After 6 minutes
- E. Immediately

### 40.

A 32-year-old woman is diagnosed with breast cancer. She is 10 weeks pregnant with a 3 cm tumour in her breast. You are part of the multidisciplinary team at the gynaecology oncology department.

What is your recommendation for her treatment?

- A. Surgical excision as soon as possible
- B. Surgical excision and chemotherapy as soon as possible, within the first trimester
- C. Surgical excision as soon as possible, and administer chemotherapy in the second trimester
- D. Surgical excision and administering chemotherapy six weeks post-delivery
- E. Surgical excision in the second trimester

### 41.

A 30-year-old woman in her second pregnancy presents to the antenatal clinic at 28 weeks' gestation for counselling. Her first pregnancy ended in a spontaneous vaginal delivery at 41 weeks. This was complicated by a third degree tear, which was repaired

in theatre. She had mild incontinence of flatus during the first 3 months after delivery but recovered completely by the end of 5 months and is now symptom free.

What is her risk of faecal incontinence if she has a normal vaginal delivery in this pregnancy without complications?

- A. 10%
- B. 17%
- C. 30%
- D. 40%
- E. 50%

**42.**

A 19-year-old woman in her first pregnancy presents to the emergency department with sudden breathlessness. On examination, her lips are swollen. Her pulse is 110 bpm and her BP 100/60 mmHg. Chest examination shows generalized diminished air entry. She denies any medical history of any illnesses.

What would be the best immediate action?

- A. 0.5 ml of 1:1000 adrenaline intramuscularly
- B. 0.5 ml of 1:1000 adrenaline intravenously
- C. 10 mg chlorpheniramine intramuscularly
- D. 10 ml 10% calcium gluconate by slow intravenous injection
- E. 200 mg hydrocortisone intramuscularly

**43.**

A 24-year-old with 3 previous Caesarean deliveries comes to the antenatal clinic at 32 weeks gestation with confirmed diagnosis of placenta praevia with no evidence of morbid adherence; however, the Doppler showed there is vasa praevia.

What is your plan of care?

- A. Elective delivery by Caesarean section at 34 weeks with immediate umbilical cord clamping
- B. Elective delivery by Caesarean section at 35 weeks and defer umbilical cord clamping to 1 minute
- C. Elective delivery by Caesarean section at 37 weeks with immediate umbilical cord clamping
- D. Elective delivery by Caesarean section at 38 weeks and defer umbilical cord clamping to 1 minute
- E. Elective delivery by Caesarean section at 38 weeks with immediate umbilical cord clamping

**44.**

A 26-year-old woman consults you because she is contemplating a pregnancy. She has rheumatoid arthritis (RA) and is taking methotrexate.

Your advice regarding methotrexate and pregnancy is:

- A. To continue treatment as there is no known adverse effect
- B. To take the treatment up to 12 weeks and then discontinue
- C. To avoid treatment in the first trimester but to restart it after 12 weeks
- D. To stop treatment for at least 3 months prior to pregnancy and during pregnancy
- E. To stop treatment for at least 6 months prior to pregnancy and during pregnancy

**45.**

In the recent Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK (MBRRACE-UK) report into maternal death between 2011 and 2013, what proportion of direct maternal deaths occurred in the antenatal period?

- A. 14%
- B. 24%
- C. 44%
- D. 64%
- E. 84%

**46.**

You have recently read the 2011–2013 Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK (MBRRACE-UK) report into maternal mortality.

What is the leading cause of late maternal death in that report?

- A. Cardiac disease
- B. Haemorrhage
- C. H1N1 virus infection
- D. Psychiatric causes
- E. Thrombosis and thromboembolism

**47.**

A woman who is 12 weeks pregnant has a serum screening test that shows a Venereal Disease Research Laboratory/Rapid-plasma-regain (VDRL/RPR) titre of >16.

This result indicates she has:

- A. Active syphilis infection
- B. Acute on top of chronic syphilis infection
- C. Chronic syphilis infection
- D. Neurosyphilis infection
- E. Undergone effective treatment

**48.**

A woman who, at 32 weeks pregnant had a proven B19 infection, has developed fetal hydrops at 36 weeks.

What is your management?

- A. Administer steroids for lung maturity and deliver
- B. Arrange for an immediate middle cerebral artery peak systolic velocity (MCA-PSV) to detect fetal anaemia
- C. Arrange for intrauterine transfusion according to the severity of the hydrops
- D. Continue ultrasound monitoring and deliver at 38 weeks for better fetal maturity
- E. Deliver if the middle cerebral artery peak systolic velocity (MCA-PSV) was more than 1.5 multiple-of-median (MOM)

**49.**

A 24-year-old woman attends antenatal clinic at 13 weeks' gestation. She reports that she found the recovery after her first birth (by Caesarean section) difficult as she was discharged to a women's refuge because her previous partner had been physically abusive.

What proportion of women experience domestic abuse in the UK?

- A. 5%
- B. 10%
- C. 15%
- D. 20%
- E. 25%

**50.**

A 32-year-old hedge fund manager is admitted at 34 weeks' gestation with signs suggestive of a placental abruption. A few hours following admission, she has a spontaneous vaginal delivery of a 1100 g female infant.

What is the most likely cause of her preterm delivery?

- A. Alcohol abuse
- B. Amphetamine use
- C. Benzodiazepine use
- D. Cannabis use
- E. Cocaine use