



## THE COLLEGES OF MEDICINE OF SOUTH AFRICA

Incorporated Association not for gain Reg No 1955/00003/08

## Examination for the Subspecialty in Maternal & Fetal Medicine of the College of Obstetricians & Gynaecologists of South Africa

#### 27 February 2020



Paper 1 Maternal Medicine (3 hours)

All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)

- 1 a) Discuss the treatment of epilepsy in pregnancy, with particular reference to the drugs used and their side effects. (40)
  - b) You are tasked with the responsibility of drafting a protocol for the use of blood, blood products and haemostatic drugs during massive obstetric haemorrhage.
    - Discuss the various blood, blood products and haemostatic drugs that you would include in the protocol with special attention to their constituents, indications for use, dosages (if applicable) and potential side effects.
    - ii) Discuss complications of massive blood transfusion.

[100]

(20)

- 2 a) Describe your management of a 35-year-old G3 P3 who requires a laparotomy for postpartum haemorrhage. (40)
  - b) A patient with SLE is referred to the High-Risk Clinic with a newly diagnosed pregnancy. Outline your management for this patient. (30)
  - c) Write short notes on Hepatitis C and E infection in pregnancy.
  - d) Discuss the practice of vaginal seeding (vaginal microbial transfer) from the mother to the caesarean-born neonate. (10)

[100]

(20)

- a) Describe your approach to the assessment of a patient who presents with sudden onset severe shortness of breath one hour after caesarean section. (30)
  - b) A baby with low 1 and 5 minute Apgar scores has been delivered by caesarean section for suspected fetal compromise at term gestation.
    - i) Discuss the technique and role of a cord blood gas analysis in this scenario. (40)
    - ii) Define cerebral palsy and list the criteria that must be met before considering an association between cerebral palsy and intrapartum asphyxia. (10)
  - c) What is clinical audit and describe the key steps involved in this process? (20)

[100]



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Paper 2 Fetal Medicine (3 hours)

All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)

- Describe the embryology of the foetal heart and great vessels. 1 (40)a) Write short notes on the genetics of Osteogenesis Imperfecta. (10)b) Write short notes on the genetics of Balanced and Unbalanced Translocation. (10)ii) c) Outline the ethical challenges surrounding foeticide in South Africa. (40)[100] 2 a) Discuss your approach to a twin pregnancy where one foetus has an abnormality. (50)Describe the causes of anhydramnios at the 22-week foetal anomaly scan. b) (10)Describe your counselling and management for a foetus with lower urinary tract ii) obstruction. (40)[100]
- 3 a) When diagnosing primary cytomegalovirus (CMV) infection in pregnancy:
  - i) What is avidity testing and describe the use of the test in pregnancy? (10)
  - ii) Describe what invasive tests can be offered to diagnose fetal CMV infection, the optimal timing of these tests and the implications of the results. (10)
  - b) Critically evaluate the use of Doppler (maternal and foetal) in the management of intrauterine growth restriction. (40)
  - c) A patient with Rh isoimmunisation, at 27-weeks of gestation, is suspected of having a foetus with anaemia based on MCA Doppler interrogation. Your plan is to perform an intra-uterine transfusion. Describe the pre-procedure preparation, techniques of procedure and follow-up of the patient.

    (40)

[100]