

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION FOR MD (OBSTETRICS & GYNAECOLOGY)
APRIL 2021

Date: 20th April 2021

Time: 1.00 p.m. – 4.00 p.m.

Answer all six (06) questions.

Answer each question in a separate answer book.

SHORT ANSWER QUESTIONS

1. Describe the anatomy of the anal canal in a 25-year-old female including the clinical relevance, excluding embryology. (100 Marks)

2. Describe the hormonal regulation of glucose homeostasis and outline its physiological alterations during pregnancy. (100 marks)

3.
 - 3.1. Describe in detail the pathological processes in repair of a wound by scar formation. (40 marks)
 - 3.2. Outline the factors that influence wound healing (30 marks)
 - 3.3. Explain the pathological basis of complications in wound healing. (30marks)

4.
 - 4.1. Describe the endocrine mechanisms associated with ovulation once puberty has occurred. (45 marks)
 - 4.2. Describe the endocrinological basis and effects of anovulatory cycles in teenage girls. (25 marks)
 - 4.3. A 30-year-old woman with anovulatory cycles has been trying to achieve a pregnancy for two years. Justify which investigations are appropriate to identify the cause of anovulation. (30 marks)

Contd...../2-

5. A 40-year-old woman presents with recurrent episodes of vaginal discharge. Vulvovaginal candidiasis is suspected.

- 5.1. List five (5) predisposing factors for vulvovaginal candidiasis. (10 marks)
- 5.2. Outline the pathogenesis of vulvovaginal candidiasis explaining the body's immune mechanism in response to this condition. (40 marks)
- 5.3. Briefly describe the collection of specimens and laboratory investigations to diagnose vulvovaginal candidiasis. (30 marks)
- 5.4. Outline the management of recurrent vulvovaginal candidiasis in this patient. (20 marks)

Contd...../3-

- 6.
- 6.1. Briefly outline the basic physical principles of following imaging modalities.
- 6.1.1 Ultrasonography (excluding Doppler) (15 marks)
- 6.1.2 Magnetic Resonance Imaging (MRI) (15 marks)
- 6.2. Briefly explain the underlying principle steps of Polymerase Chain Reaction (PCR) test. (20 marks)
- 6.3. A study was performed to describe the association between the maternal use of methadone and early neonatal thrombocytosis during first week of life in full term babies.
The graph below shows the platelet count on the 7th day of life.

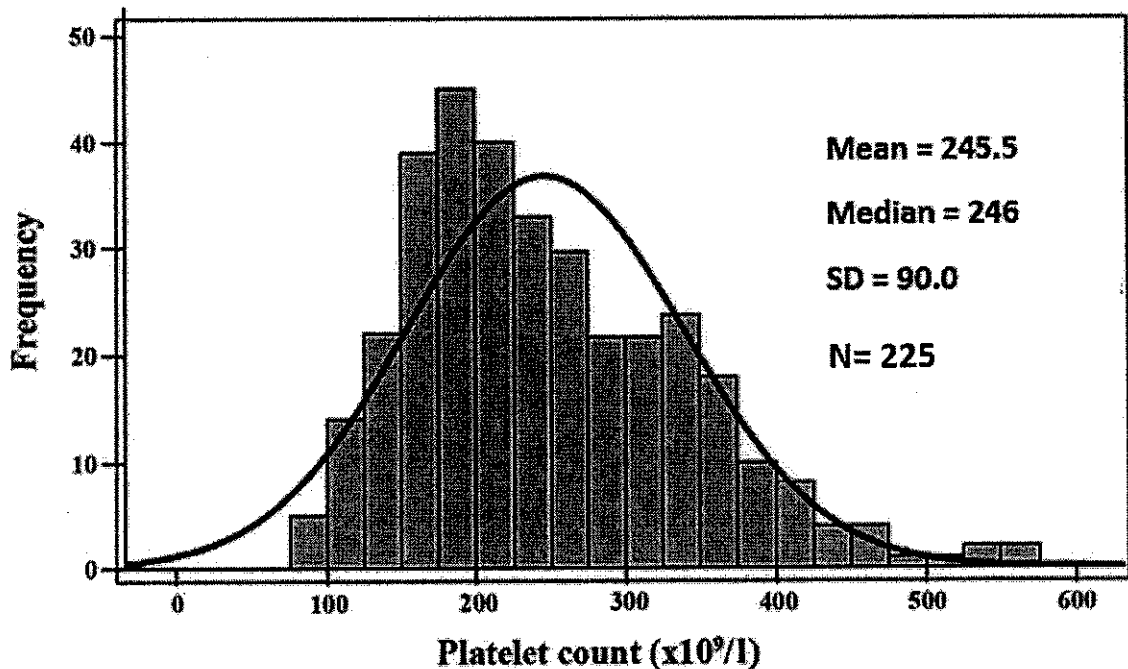


Figure 1.1: Frequency of neonatal thrombocytosis during first week of life in full term babies.

- 6.3.1. Justify with reasons, the type of graph and the type of the distribution that is depicted in Figure 1.1. (25 marks)
- 6.3.2. If you are to improve the ways of presenting the dispersion, other than for the standard deviation what other measurement could be used to describe the dispersion for median? (5 marks)
- 6.3.3. As indicated with the parameters mentioned in Figure 1.1, calculate and interpret the 95% Confidence Interval for the mean platelet count of these 225 infants. (20 marks)

