



NMM 121

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(University of Choice)

**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)**

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR**

**FIRST YEAR SECOND TRIMESTER EXAMINATIONS**

**FOR THE DEGREE  
OF**

**BACHELOR OF SCIENCE IN MIDWIFERY SEPTEMBER 2021 ODEL  
GROUP**

**COURSE CODE : NMM 121**

**COURSE TITLE: MIDWIFERY I, PRECONCEPTION AND  
PREGNANCY**

**DATE: 22/04/2022**

**TIME: 8AM-11AM**

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**INSTRUCTIONS TO CANDIDATES**

**This paper has three sections A,B,C**

**All Questions Are Compulsory**

**TIME: 3 HOURS**

**MMUST observes ZERO tolerance to examination cheating**

**MULTIPLE CHOICE QUESTIONS (MCQS)****(20 MARKS)**

1. Which of the following represents the correct order of events during the menstrual cycle?
  - A. FSH rise, ovulation, LH surge, luteal phase, menstruation
  - B. Luteal phase, menstruation, FSH rise, ovulation, follicular phase
  - C. Follicular phase, luteal phase, FSH rise, ovulation, menstruation
  - D. Menstruation, FSH rise, LH surge, ovulation, luteal phase
2. During the follicular phase, the dominant follicle arises in response to which of the following?
  - A. Matrix-degrading proteases
  - B. HCG
  - C. FSH
  - D. Androgens
3. The Luteinizing Hormone surge is primarily responsible for which menstrual cycle event?
  - A. Apoptosis
  - B. Endometrial sloughing
  - C. secretory
  - D. Ovulation
4. If a pregnant woman overexerts herself during exercise, it can be bad for the fetus. In what way?
  - A. Increases the mother's body temperature
  - B. Mother's lungs flooded with carbon dioxide
  - C. Reduces oxygen to the fetus
  - D. Waste byproducts get into the mother's blood
5. How does the mother's stress level affect the fetus?
  - A. Causes premature birth
  - B. Causes low birth weight
  - C. Changes baby's temperament
  - D. All of the above
6. Healthy habits during which trimester are most crucial for the well-being of the developing fetus?
  - A. First trimester
  - B. Second trimester
  - C. Last trimester
  - D. All trimesters
7. The initial step during fertilization is
  - A. Penetration of sperm into egg
  - B. Fertilizin and antifertilizin reaction
  - C. Formation of fertilization membrane

D. Formation of fertilization cone

8. Where does fertilization of sperm and ovum takes place in
  - A. Ampulla of oviduct
  - B. Isthmus of oviduct
  - C. Fimbriae of oviduct
  - D. Uterus
9. The extra embryonic structure that provides nutrition to the embryo is
  - A. Chorion
  - B. Placenta
  - C. Amnion
  - D. Umbilicus
10. The main function if fimbriae of oviduct are
  - A. Help in collection of ovum after ovulation
  - B. Make necessary changes in endometrium for implantation
  - C. Release ovum from Graafian follicle
  - D. Help in development of embryo
11. The amniotic cavity develops:
  - A. on the tenth day
  - B. within the outer cell mass
  - C. within the inner cell mass near the cytotrophoblast
  - D. in extraembryonic mesoderm
12. During the second week of development, the trophoblast differentiates into:
  - A. syncytiotrophoblast
  - B. ectoderm
  - C. intraembryonic mesoderm
  - D. yolk sac
13. The portion of placenta contributed by the embryo is the
  - A. Chorion
  - B. Yolk sac
  - C. Amnion
  - D. Allantois
14. Which vessel transports blood rich in oxygen and nutrients to the fetus?
  - A. Ductus arteriosus
  - B. Ductus venosus
  - C. Umbilical vein
  - D. Umbilical artery

15. When is it first possible to distinguish the sex of the fetus?
- 1st month
  - 2nd month
  - 3rd month
  - 4th month
16. The structure which implants in the endometrium is termed as
- Embryo
  - Zygote
  - Morula
  - Blastocyst
17. For questions 17 indicate whether the answer is **TRUE** or **FALSE**
- Folic acid helps in the development and formation of a baby's brain and spine
  - Fetal alcohol syndrome describes birth defects caused by alcohol consumption during pregnancy.
18. In normal pregnancy:
- Blood pressure falls in the second trimester.
  - Plasma volume decreases throughout gestation.
  - There is a reduction in erythrocyte production.
  - 50 per cent of women have a transient diastolic murmur
19. During development of the ovarian follicles:
- The primary oocyte is arrested at the interphase of the second meiotic division.
  - Granulosa cells in the corpus luteum are responsible for steroidogenesis.
  - Mitosis is resumed after follicle stimulating hormone
  - Meiosis is resumed prior to the luteinizing hormone (LH) surge.
20. Maternal effects on the physiology of the kidney include:
- There is a 40 per cent increase in renal blood flow.
  - There is an increase in the glomerular filtration rate.
  - The urea and creatinine are higher than the non-pregnant state.
  - The upper limit of protein excretion in pregnancy is 0.6 g per day.

**SHORT ANSWER QUESTIONS****SAQS****40 MARKS**

1. Draw a well labelled diagram of a **NON** gravid uterus ( 6marks)
2. State the investigations carried out during antenatal period (8 marks)
3. Describe the characteristics of a Term Placenta ( 8 marks)
4. State four minor disorders of pregnancy ( 4 marks)
5. Describe three (3) signs of pregnancy ( 6 marks)
6. Describe the preconception care ( 8 marks)

**LONG ANSWER QUESTIONS LAQS****40 MARKS**

1. Describe the physiological changes of five systems that take place during pregnancy (20 marks)
2. a) Describe the process of fertilization followed by subsequent development of conceptus (10 marks)  
b) Explain the early development of the embryo and subsequent development of the fetus (10 marks)