



UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
SCIENCE IN BIOCHEMISTRY**

BIOC 426: REPRODUCTIVE BIOCHEMISTRY

STREAMS: Y4S2

TIME: 2 HOURS

DAY/DATE: FRIDAY 12/4/2024

11.30 A.M. –1.30 P.M.

INSTRUCTIONS: Answer question ONE and any other TWO questions

Question 1 (compulsory) (30 marks)

- (a) Briefly describe the maternal cardiovascular changes that occur during pregnancy.(5 marks)
- (b) Explain the physiologic actions of drugs that are used to induce abortion. (5 marks)
- (c) With examples, explain the mechanism of action of progesterone antagonists. (4 marks)
- (d) Describe the mechanism of emission and ejaculation in males. (5 marks)
- (e) Describe the process of hormonal control of female secondary sex characteristics. (7 marks)
- (f) Explain hormonal control of mammary glands during pregnancy. (4 marks)

Question 2 (20 marks)

- (a) Discuss the process of production and the role of thromboxane in pregnancy. (10 marks)
- (b) Describe the process of fertilization from the point of copulation in placental mammals. (10 marks)

Question 3 (20 marks)

- (a) Explain the reproduction in monotremes. (10 marks)
- (b) Describe the series of events that occur during ovarian cycle. (10 marks)

Question 4(20 marks)

- (a) Explain any FIVE causes of defective ovulation. (10 marks)
- (b) Describe the anatomical locations and functions of THREE major accessory glands found in male reproductive systems. (7 marks)
- (c) Explain why a woman may feel cramping pains in her abdomen during menstruation. (3 marks)