



Date: 14/07/2022
GRADE: XII

MONTHLY TEST -02 (2022-23)
BIOLOGY (044)

Max marks: 20
Time: 1 Hour

General Instructions:

1. There are 9 questions in the question paper.
2. All questions are compulsory.
3. Draw diagrams, wherever necessary.

Qn. No		Marks allocated
SECTION A		
1	What will be the percentage of pea plants that would be homozygous recessive in the F ₂ generation, when tall F ₁ heterozygous pea plants are selfed: - A) 25% B) 50% C) 75% D) 100%	1
2	Assertion: Transfer of an ovum collected from a donor into the fallopian tube of another female who cannot produce an ovum is called GIFT. Reason: Transfer of zygote into the fallopian tube of the female is called ZIFT (A) Assertion and reason both are correct statements and reason is correct explanation for assertion. (B) Assertion and reason both are correct statements and reason is not correct explanation for assertion. (C) Assertion is correct statement but reason is wrong statement. (D) Assertion is wrong statement but reason is correct statement.	1
3	Foetal ejection reflex in human female induces A) release of hormones from placenta B) release of oxytocin from foetal pituitary C) release of oxytocin from maternal pituitary D) release of prolactin from pituitary	1
4	Decline of which hormone during menstrual cycle results in the degeneration of corpus luteum (A) Progesterone (B) estrogen (C) both 1 and 2 (D) LH	1

SECTION B

5

Write the genotype of:

- a) An Individual who is carrier of Sickle Cell Anemia gene, but apparently unaffected.
 b) An individual affected with the disease.

2

SECTION C

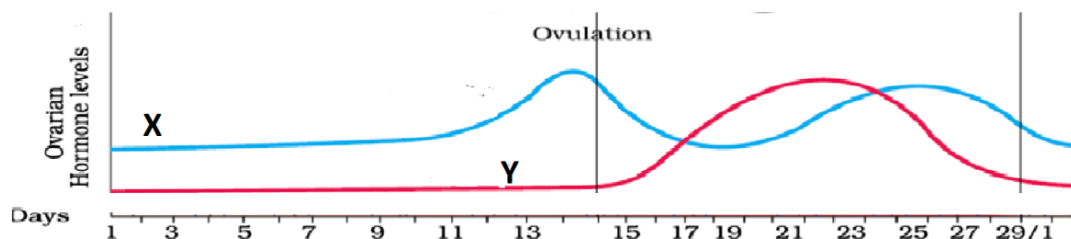
6

Explain any three natural methods of contraception.

3

7

Study the graph given below related with menstrual cycle in females:



3

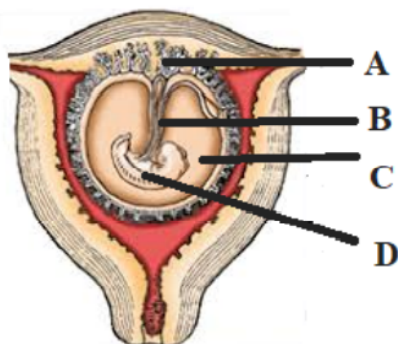
a. Identify ovarian hormones X and Y mentioned in the graph and specify their source.

b. Write down the uterine events that take place according to the ovarian hormone levels **X and Y** mentioned in the graph on -

- i. 6 – 15 days
 ii. 26 – 28 days (when ovum is not fertilized)

8

The following figure shows a foetus within the uterus. On the basis of the given figure, answer the questions that follow:



3

(a) In the above figure, choose and name the correct part A, B, C and D.

(b) Mention the role of B in the development of the embryo.

SECTION D

9

- If a tall pink heterozygous snapdragon plant is self-crossed,
 a) What will be the percentage of plants with red flowers?
 b) What will be percentage of tall plants?
 c) Illustrate the cross through a Punnet square.

5

(1+1+3)

THE END

