



पुर्ना International School

Shree Swaminarayan Gurukul, Zundal

Student Name					
Date		Grade	XII	Roll No.	
Subject	Biology	Marks	50	Teacher's Sign	

PERIODIC ASSESSMENT – I 2021-22]

General Instructions

Read the following instructions carefully and strictly follow them:

- All questions are compulsory.
- The question paper has four Sections: Section A, Section B, Section C, Section D. There are 25 Questions in the question paper
- Section A has 10 question of 1 mark each. Section B has 9 questions of 2 marks each. Section C has 3 questions of 3 marks each and section D has 2 questions of 5 marks each.
- There is no overall choice . However, internal choices have been provided in some questions. A Student has to attempt only one of the alternatives in such questions
- Wherever necessary , neat and properly labelled diagrams should be drawn

SECTION A

1 Acrosomal reaction of the sperm occurs due to

- its contact with zona pellucida of the ova
- reactions within the uterine environment of the female
- reactions within the epididymal environment of the male
- androgens produced in the uterus.

2 If mammalian ovum fails to get fertilised, which one of the following is unlikely ?

- Corpus luteum will disintegrate.
- Progesterone secretion rapidly declines.
- Estrogen secretion increases.
- Primary follicle starts developing

3 In flowering plants, both male and female gametes are non-motile. The method to bring them together for fertilisation is

- water
- air
- pollination
- apomixis

get fertilised, which one of the following is unlikely ?

- (a) Corpus luteum will disintegrate.
- (b) Progesterone secretion rapidly declines.
- (c) Estrogen secretion increases.
- (d) Primary follicle starts developing

3 In flowering plants, both male and female gametes are non-motile. The method to bring them together for fertilisation is

- (a) water
- (b) air
- (c) pollination
- (d) apomixis

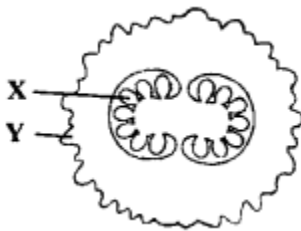
4 A human female reaches menopause around the age of

- (a) 50 years
- (b) 15 years
- (c) 70 years
- (d) 25 years.

5 In maize, a meiocyte has 20 chromosomes. What will be the number of chromosomes in its somatic cell?

- (a) 40
- (b) 30
- (c) 20
- (d) 10

6 Which of the labelled parts in the transverse section of tomato fruit, is/are diploid?



- (a) X
- (b) Y
- (c) Both X and Y
- (d) None of these

7 The term 'clone' cannot be applied to offspring formed by sexual reproduction because

- (a) offspring do not possess exact copies of parental DNA
- (b) DNA of only one parent is copied and passed on to the offspring

- (c) offspring are formed at different times
- (d) DNA of parent and offspring are completely different

8 Which of the following is not a water pollinated plant ?

- (a) Zostera
- (b) Vallisneria
- (c) Hydrilla
- (d) Cannabis

9 Endospermic seeds are found in

- (a) castor
- (b) barley
- (c) coconut
- (d) all of these

10 Polyembryony commonly occurs in

- (a) banana
- (b) tomato
- (c) potato
- (d) citrus.

SECTION B

11 Why is apple called a false fruit? Which Part(s) of the flower forms the fruit?

12 . Name the parts of an angiosperm flower in which development of male and female gametophytes take place.

13 Explain why meiosis and gametogenesis are always interlinked?

14 Off springs formed due to sexual reproduction have better chances of survival. Why?
Is this statement always true?

15 How many eggs do you think were released by the ovary of a female dog which gave birth to 6 puppies?

16 What is parturition ? Which hormones are involved in induction of parturition

17 Write two major functions each of testis

18 How does the progeny formed from asexual reproduction differ from those formed by sexual reproduction?

19 Mention one strategy evolved to prevent self-pollination in flowers.

SECTION C

20 What is vegetative propagation? Give two suitable examples.

21 . What is menstrual cycle? Which hormones regulate menstrual cycle?

22 What are the major functions of male accessory ducts and glands?

23 Differentiate between: perisperm and pericarp

SECTION D

24 . Explain the role of tapetum in the formation of pollen grain wall.

OR

What is bagging technique? How is it useful in a plant breeding programme?

25 With a neat diagram explain the 7-celled, 8- nucleate nature of the female gametophyte.

