THE BRIGADE SCHOOL

Total points 11/15

Subject: BIOLOGY Class X Max.Marks: 40

This paper consists of two parts
PART 1- OBJECTIVE TYPE- 15 marks
PART 2- SUBJECTIVE TYPE (Separate link)- 25 marks

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PART 1- OBJECTIVE TYPE

0 of 0 points

Max.Marks: 15

Name : *

Manan Y Mehta

Class : *

10 A

School : *

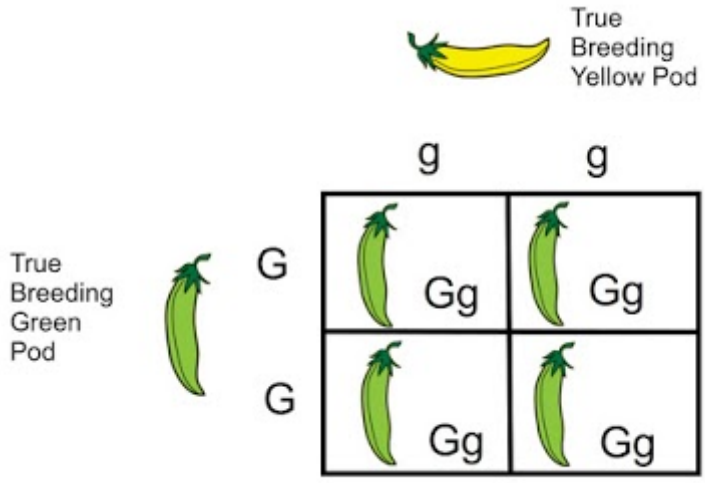
TBSG

Choose the Correct Answer

11 of 15 points

Each Question Carries 1 Mark

✗ 1. Which Mendelian law/(s) of Inheritance can be studied in the cross given below * 0/1



- a) Law of dominance and Law of independent assortment
- b) Law of dominance and Law of segregation
- c) Law of dominance ✗

Correct answer

- b) Law of dominance and Law of segregation

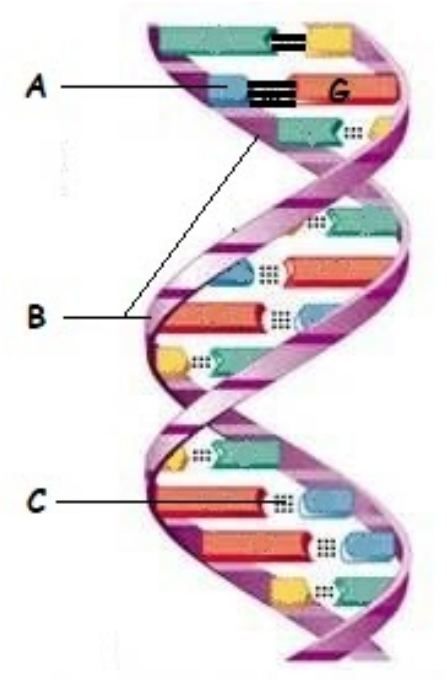
✓ 2. Which of the following statements is incorrect? * 1/1

- ○ a) exudation from injured plant parts is called bleeding
- ◉ b) girdling experiment retains the phloem tissue in the plant itself ✓
- ○ c) Open stomata, dry atmosphere and moist soil results in maximum transpiration pull

Feedback

Note: Girdling experiment retains xylem and for study of direction of flow of food, the outer bark including phloem is removed.

✗ 3. Identify the correct labels for the diagram given below. * 0/1



- ○ a) A- hydrogen bond B- polynucleotide strands C- base pair
- ○ b) A- cytosine B- polynucleotide strands C- hydrogen bond
- ◉ c) A- cysteine B- sugar phosphate backbone C- hydrogen bond ✗

Correct answer

- ◉ b) A- cytosine B- polynucleotide strands C- hydrogen bond

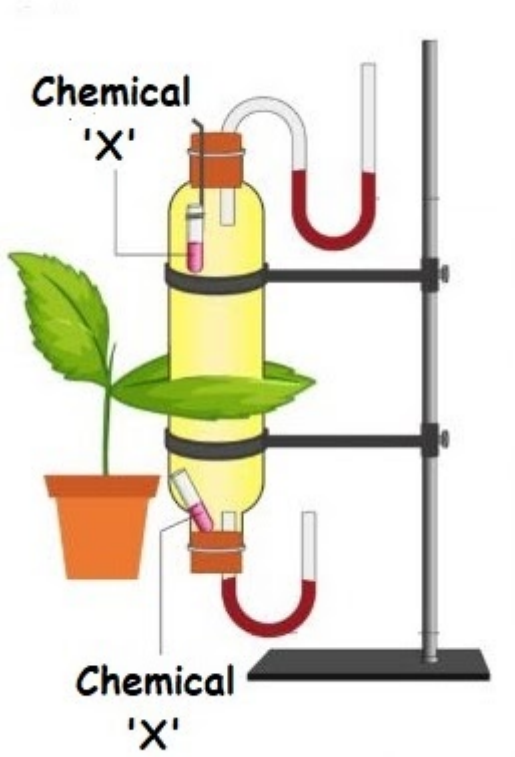
✓ 4. How many nuclear divisions does a single diploid cell undergo for the formation of sperm cells? * 1/1

- (●) a) two ✓
- ( ) b) four
- ( ) c) one

Feedback

Note: Meiosis cell division involves two nuclear divisions.

✓ 5. What is the purpose of using chemical X in the given experiment? * 1/1



- (●) a) absorption of moisture ✓
- ( ) b) colour indicator
- ( ) c) prevents evaporation

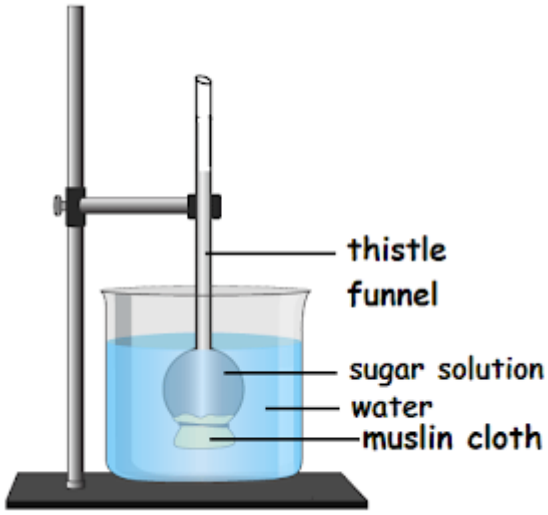
Feedback

Note:The chemical 'X' is Calcium chloride

✓ 6. A spontaneous alteration in the genetic material that can be inherited * 1/1

- a) crossing over
- b) mutation ✓
- c) genotype

✗ 7. When the given experimental set up is kept aside for a while the level of sugar solution inside the thistle funnel ..... * 0/1



- a) decreases
- b) increases ✗
- c) remains the same

Correct answer

- a) decreases

Feedback

NOTE: pores of muslin cloth are so large that they would not hold back even the sugar molecules and the entire sugar solution would flow down to a common level due to gravity.

✓ 8. Artificial arrangement of chromosomes in pairs in order of their size and shape * 1/1

- ○ a) recombination
- ○ b) karyokinesis
- ◉ c) karyotype ✓

✓ 9. Which of the following is not an appropriate reason for wilting in plants? * 1/1

- ○ a) The rate of loss of water from the plant is greater than the absorption of water in the plant.
- ◉ b) plants cells sap is hypotonic ✓
- ○ c) decreased turgor pressure

Feedback

Note: If not enough water is available, the plant will wilt because its cells have lost water and the sap is now hypertonic which means the concentration of solute is too high.

✓ 10. Pick the odd one out from the following terms: * 1/1

- ◉ a) heterologous chromosome ✓
- ○ b) chiasmata
- ○ c) non sister chromatids
- ○ d) crossing over

✗ 11. Rearrange the terms in a logical sequence based on loss of water due to transpiration * 0/1

- (●) a) A-stoma B- mesophyll cells C- xylem D- substomatal space E- intercellular space ✗
- ( ) b) A- xylem B- mesophyll cells C- intercellular space D- substomatal space E- stoma
- ( ) c) A-stoma B- intercellular space C- mesophyll cells D- substomatal space E- xylem

Correct answer

- (●) b) A- xylem B- mesophyll cells C- intercellular space D- substomatal space E- stoma

12. Match the following descriptions with the appropriate terms. *

	osmosis	autosome	imbibition	allosome	variation	Score	
a) chromosomes other than the pair of sex chromosomes	( )	(●)	( )	( )	( )	1/1	✓
b) absorption of water by seeds	( )	( )	(●)	( )	( )	1/1	✓
c) small differences between individuals of the same species	( )	( )	( )	( )	(●)	1/1	✓
d) absorption of water by root	(●)	( )	( )	( )	( )	1/1	✓