



15/09/12

30 1/2

~~29 1/2~~
80

200
1919m

STUDENT NAME:	Ahan CG	TOTAL MARKS OBTAINED
CLASS:	10A	SUBJECT: Science
ROLL NO.:	2	DATE: 15/09/12

P - 12 1/2 15/09/12

C - 3 1/2 15/09/12

B - 13 1/2 15/09/12

Section A

1. a. ~~water~~ on the tips of the stems to increase growth

2. a. ~~p~~

3. d. ~~Testes~~ → Vas deferens → Ureter

4. b. ~~nitrogen~~

5. a. ~~Soups and juices only~~

6. b. ~~Buck develops due to repetitive cell division at a specific site.~~

7. b. ~~it produces variations which may help organisms adapt.~~

8. A. ~~Both A and R are true, and R is the correct explanation of A~~

9. D. ~~A is false but R is true.~~

10. a. ~~Hydrochloric acid is located in the stomach and it helps in breaking down food.~~

04 1/2

~~ANSWER~~

11. A.

a. Testosterone

(1)

b.

13.

a.

Over production of hydrochloric acid

(2)

b. The production of hydrochloric acid is necessary because it helps in breaking down food.

15.

a.

b. Only one sperm is able to fertilize the egg even though many reach it because only one sperm is required.

(1)

c. The cell formed immediately after fertilisation is called embryo.

(2)

d. Placenta is where the foetus gets food from.

16. A

i. Inherited traits are such traits which a person inherits from the older generations of his/her family. Even though students are of the same species, differences arise when there was a very tiny change in the gene which was inherited by the students.

(3)

ii. Some traits, like earlobes, remain consistent in the family because it gets inherited by multiple generations. Variations in genes are made such that a person can survive in their surroundings.

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16. Name two metals which are obtained from their
ores by the Section B method.

17. b. (ii) only \leftarrow

18. d. Antacids \leftarrow

19. b. Burning of methane \leftarrow

20. a. FeSO_4 \leftarrow

21. c. Mercury and Bromine \leftarrow

22. a. Sulphur \leftarrow

23. d. any - p, q, R \leftarrow

24. D. A is false and B is true \leftarrow

25. H H H H H \leftarrow

26. a. Citric acid \leftarrow

b. $\text{CaOH} + \text{H}_2\text{O} \leftarrow$

27. a. The juice will taste sour as it is an acid and acids taste sour \leftarrow

Q3. Match
Column A Column B

- b. We can differentiate between a strong acid and a weak base by their pH. A strong acid will have a pH of around 1-2 and a weak base will have a pH of 8-9.

- c. Acid rain When acid rain falls on a body of water with aquatic animals in it, the water becomes acidic. When the water becomes acidic, the water becomes ~~un~~dangerous for the aquatic animals.

how it affects

QABC.	Metals	Non-Metals
	<ul style="list-style-type: none">Good conductors of heat and electricityMostly found in solid stateSonorous, lustrous, malleable, ductile	<ul style="list-style-type: none">Bad conductors of heat and electricitycan be found in either solid, liquid and gasNot sonorous, lustrous, malleable, ductile

Chemical properties

- b. i. Most metals conduct electricity well because of their ionic properties

Section C

30. d. Between the optical center of the lens and its principal focus

31. c. The wavelength of blue light is shorter, so it is scattered by more air molecules.

Vista

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Q. 37 to 40

37.

- b. OUT OF A, B,C. graph C represents the resistors for the series combination.

①

Q. 38 to 40

38.

- a. If B, gets fused, the glow of the other two bulbs will increase because they have more current

①

flowing to them because it is parallel combination
in parallel the current splits

- b. the reading of ammeter A won't change because the current will get divided into the other two bulbs.

①

- c. Even though it would save wiring, household appliances are never connected in series because if we turn off one appliance, all other appliances will also get turned off.

①

39. a. In Madhu's circuit, the bulb will glow even when

the switch is closed is because current enters from the live wire and exits through the neutral wire. Over here when we close the switch we are giving it a connection to exit through the neutral wire. Both circuit will glow.

- b. It will be dangerous to change the bulb in Madhu's circuit because the current is constantly flowing to the bulb which can get overheated.

④

RD 3 NORTH
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MSB

Section A

12. The farmer should use vegetative propagation.

- a. He should choose this method because to achieve the same taste, it should grow faster.

14. Reflex Action is such an action that happens instantly when we feel harm or want to do actions such as sneezing.

14

Brain gets signal from nose that sends signal to spinal cord to arm to sneeze.

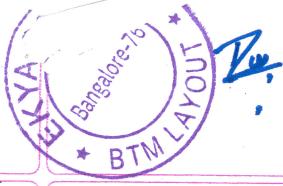
Reflex action helps us lift our arm to get rid of dust or pollen when sneezing.

SECTION B

28. In rain water flows in plastic containers in all the houses. Effect of water on water and air is not good and this can be solved by making small ponds near houses which will help in reusing water.

It should not depend on electricity as there is a chance of breakage and damage which causes a lot of pollution and power outages due to the rain.

2



STUDENT'S NAME <u>Anam CG</u>		TOTAL MARKS OBTAINED
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32. ① Q. A is false but R is true ~~✓~~ ✓
33. ① I₁ has the lowest refractive index whereas I₂ has a lower refractive index than I₃ but more than I₁. I₃ has the highest refractive index.
- In terms of speed.

~~34. B. $M = \frac{v}{u}$~~

~~v~~

~~$= -10$~~

~~5~~

34. B. Given: height of object = 5 cm
& height of image = -10 cm

To find: magnification
Nature of image

a. $M = \frac{v}{u}$

$$= \frac{-10}{5} = -2$$

$M = -2$

- b. The image is virtual and erect. & magnified.

35. a. When light falls on a surface, either reflection or refraction takes place.

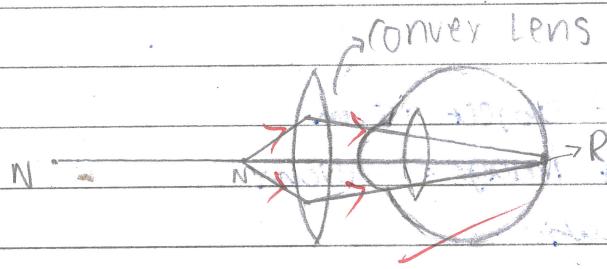
④

b. Refractive index of any material with respect to air is always greater than 1, because the speed of light ^{in air} compared to the speed of light ^{in medium} is less.

c. The refractive index of medium B is greater than refractive index of medium A. ~~is greater than unity~~

36. a. The defect in the above image is hypermetropia (farsightedness) as the image is formed behind the retina.

2 1/2



37. Given: $R_1 = 10 \Omega$

~~a.~~ $R_2 = 15 \Omega$

$V = 3V$

a. Current in 10Ω resistor = $\frac{V}{R}$

1

$$= \frac{3}{10} A$$

Current in 15Ω resistor = $\frac{V}{R} = \frac{3}{15} = \frac{1}{5} A$

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