

GREENLAWNS SCHOOL, WORLI

FINAL EXAMINATION: 2016-17

BIOLOGY

Std: VIII

Date: / /2017

Marks: 80

Time: 2 hrs

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Answer to this paper must be written on the answer booklet provided to you.

The first 10 minutes are to be spent in reading the Question paper. The time given at the head of this paper is the time allowed for writing the answers. All questions are compulsory.

Do not waste paper. Leave only one line after each answer.

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I A) Name the following: [10]

- i. The region of the axis between the point of attachment of cotyledons and the plumule.
- ii. Condition in which normal body functioning is disturbed.
- iii. The energy currency of the cell.
- iv. Condition in which the anther and stigma of the same flower mature at different times.
- v. Plant cells lacking the cell wall.
- vi. Vaccine for polio.
- vii. A chemical which absorbs oxygen.
- viii. The method of respiration in certain bacteria and fungi.
- ix. The fusion between male nucleus and the polar nuclei in an ovule.
- x. Mixing up of the characters of two parents in the new offspring.

B) Give one difference between the following pairs on the basis of what is indicated in the bracket. Answer only in tabular form. [5]

- i. Ovary wall and placenta (fate after fertilisation)
- ii. Hilum and micropyle (function)
- iii. Glycolysis and Krebs's cycle (site of occurrence)
- iv. Roundworm and tapeworm (disease caused)
- v. Sexual and vegetative propagation (advantage)

C) Choose the odd one out and give a reason for your answer: [5]

- i. Tetanus, cholera, mumps, syphilis
- ii. Bulbils, layering, cutting, grafting
- iii. Cereals, mango, poppy, palm
- iv. Roots, lenticels, stomata, bark
- v. Goitre, haemophilia, beri-beri, scurvy

D) Define the following terms: [5]

- |                             |                          |
|-----------------------------|--------------------------|
| i. Viruses                  | iv. Double fertilisation |
| ii. Respiration             | v. Biotechnology         |
| iii. Viviparous germination |                          |

E) State the main function of the following: [5]

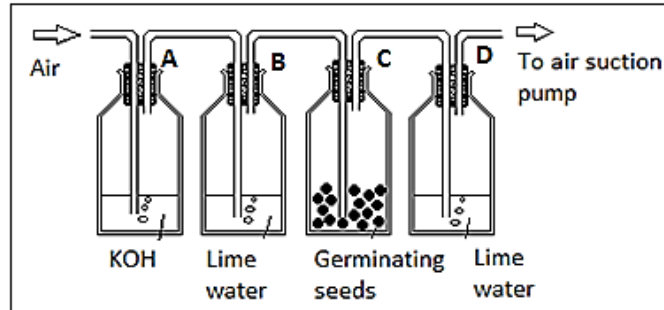
- |  |                        |
|--|------------------------|
| i. Cotyledon                                 | iv. Generative nucleus |
| ii. Radicle                                  | v. Testa               |
| iii. Soda lime in experiments on respiration |                        |

F) Copy and complete the following table:

[10]

Disease	Pathogen	Preventive method
Cholera		
AIDS		
Tuberculosis		
Malaria		
Tetanus		

II A) In order to study and prove a particular physiological process in plants, the following experiment was set-up. Observe and answer the questions given: [7]



i. What is

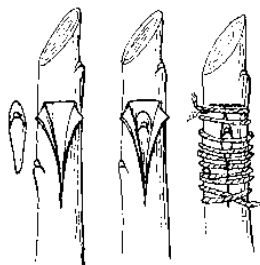
the aim of this experiment?

- ii. What is the function of KOH in bottle 'A'?
- iii. Why is lime water placed in bottle 'B'?
- iv. What change would you expect in bottle 'D'?
- v. Represent the physiological process named in (i) in the form of a chemical equation.
- vi. In order to obtain accurate results, the bottle 'C' should be covered with a black cloth. Why?
- vii. If bottle 'C' fitted with a 3 holed rubber stopper and a thermometer was introduced in such a way that its bulb reaches close to the germinating seeds, what would you observe? Why?

B) Draw a neat and labelled diagram of germination seen in bean seed.

[3]

III A) The picture below represents a method of artificial vegetative propagation.



- i. Name this technique. [½]
- ii. How is this carried out? [1½]
- iii. Mention two disadvantages of vegetative propagation. [2]
- iv. State the economic importance of artificial propagation. [1]

B) Give four characteristics of wind pollinated flowers.

[2]

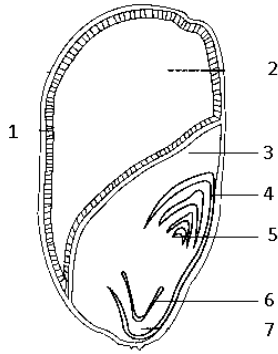
C) State two uses of micro propagation.

[2]

D) Name two degenerative non-infectious diseases.

[1]

IV A) Study the figure given below and answer the questions:



- i. Name this seed. [½]
- ii. Label parts 1 to 7 [3½]
- iii. What is the special feature of this seed? [1]
- iv. Is it a monocot or dicot seed? Give reason. [1]

B) Match the column:

[3]

**A**

- i. Herkogamy
- ii. Unisexuality
- iii. Heterostyly
- iv. Self sterility
- v. Protandry
- vi. Protogyny

**B**

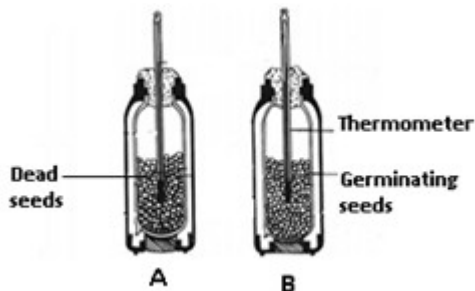
- a. Orchids
- b. Salvia
- c. Peepal
- d. Pansy
- e. Papaya
- f. Primrose

C) Write the full form of ATP.

[1]

V A) Observe the experimental setup given below and answer the questions:

[4]



- i. What is the aim of this experiment?
- ii. What change is observed in both the thermometers after 3-4 hours?
- iii. Give reason for your above observation.
- iv. Why was formalin added to the dead seeds?

B) Draw a neat diagram of a mature ovule and label -

[3]

Antipodal cells, diploid nucleus, synergids, egg cell, micropyle and integuments.

C) Write the symptoms of cholera.

[2]

D) State any two advantages of cross pollination.

[1]

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