

KOL

## Sent-up Examination-2018

Class-X

Subject-Life Science & Environment

Time : 3 Hrs.

Full Marks-90

[Note : Attempt questions from Group A, B, C & D. as directed]

### Group-A (Answer to all questions)

1. MCQ Choose the correct answer. 1x15=15

1.1 The Leaves of Mimosa pudica drops down if touched.

This is due to- <http://www.wbbseonline.com>

- a) Chemonasty (b) Photonasty
- c) Scismonasty (d) Thermonasty

1.2 Phototropism occurs due to the hormone-

- a) Florigen (b) Gibberellins
- c) Auxin (d) Thyroxine.

1.3 Name the type of movement in which 'waterlily' closes at dim light and opens at bright light-

- a) Photonasty (b) Nyctinasty
- c) Chemonasty (d) Thermonasty

1.4 The type of reproduction found in waterhyacinth is-

- a) Vegetative (b) Asexual
- c) Sexual (d) Sexual & Asexual.

1.5 In respect of somatic cells, the number of chromosomes in reproductive cells is-

- a) Same (b) double (c) Half (d) Triple.

1.6 The bones of the old persons become brittle due to accumulation of -

- a) Magnesium (b) Phosphorus
- c) Calcium (d) None of these

1.7 The term genetics was coined by-

- a) Muller (b) Mendel (c) Bateson (d) Morgan.

1.8 What is the phenotype ratio of Monohybrid cross -

- a) 3:1 (b) 3:2 (c) 3:3 (d) 3:4

1.9 The genotype of a dwarf pea plant is-

- a) ☒ TT (b) Tt (c) ☒ tt (d) Ttt.

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1.10 Life originated first—

- a) On land (b) In air (c) in water (d) On hills.

1.11. Analogous structure are—

- a) Structurally Similar  
b) Structurally & Functionally Similar.  
c) Functionally similar  
d) Normally non-functional.

1.12 "Origin of species" was written by—

- a) Oparin (b) Weismann  
c) Darwin (d) Mulder.

1.13 Which part of the Cactus mainly performs photosynthesis.

- a) Leaves (b) stem  
c) roots (d) Leaves & Spines.

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1.14 The process of converting ammonia to nitrate is known as—

- a) ammonification (b) Denitrification  
c) Nitrification (d) Eutrication.

1.15 The first National Park in India is —

- a) Corbett (b) Kanha  
c) Peryer (d) Bandipur.

**Group—B (Very short answer)**

Answer all the question as directed : 1x21=21

2.1 Fill up the blanks with proper words (Any Five). 1x5=5

2.1.1. \_\_\_\_\_ is other name of plant hormones.

2.1.2. Development of root is helped by \_\_\_\_\_

2.1.3. The locomotion of man is called \_\_\_\_\_

2.1.4. The cell division of body cell is called \_\_\_\_\_

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2.1.5. The branch of Biology concerned with aging is known as \_\_\_\_\_

2.1.6. The act of total disappearance of the species is known as \_\_\_\_\_

2.2. Decide True and False (Any Five) : 1x5=5

2.2.1. Flexor muscles help to come two adjacent bones closer.

2.2.2. CO<sub>2</sub> and SO<sub>2</sub> are two green house gases.

2.2.3. Heterozygote is produced from the union of t and T gametes.

2.2.4. Spindle fibres are formed from astral rays during plant cell division.

2.2.5. Insulin is a kind of phytohormone.

2.2.6. Women is called homogametic sex.

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2.3 Match the words in Column A with Words in Column

B (Any Five) :

1x5=5

Column A

Column B

2.3.1 (a) Colour blindness

(i) Lamarck

2.3.2 (b) Anaphase

(ii) Tiger & Deer

2.3.3 (c) Use & disuse theory

(iii) Homologous

2.3.4 (d) Air pollution

(iv) Sex linked disease

2.3.5 (e) T T

(v) Moved of chromatids towards Pole.

2.3.6 (f) Interspecific struggle

(vi) Darwin

(vii) Bronchitis.

II. Answer in simple word (Any Six)

1x6=6

2.4 What type of lens is used to correct Myopia defect of eye?

2.5 Give name of a nitrifying bacteria.

2.6 Name one living fossil of an animal.

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- 2.7 What is the relation between phenotype & genotype?
- 2.8 What will happen, when centrosome is removed from an animal cell?
- 2.9 Name a plant which can reproduce by root.
- 2.10 What is the source of emergency hormone?
- 2.11 Name two biosphere reserve in India.

**Group C (short answer type)**

3. Answer all the questions (alternatives to be noted) :  $2 \times 12 = 24$

- 3.1 What are the structural differences between dendron and Axon?
- 3.2 Write location and functions of Sclera.
- 3.3 Name the locomotary organs of Amoeba & Snail.
- 3.4 Name an animal which can reproduce by budding.
- 3.5 State importance of Meiosis cell division.
- 3.6 Depict the alternation of generation in a fern with the help of flow chart.

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3.7 What do you mean by Vestigial organ? Name one such organ Present in man.

3.8 What do you mean by "struggle for existence"?

3.9 What are alleles?

3.10 What do you know about asexual and sexual chromosomes?

3.11 State reptalian & avian characters seen in Archeopterix.

3.12 Give an examples of Interspecific and Intraspecific struggle.

3.13 Define environment.

3.14 What do you mean by natality rate?

3.15 State two causes of loss of biodiversity.

3.16 What is extinction? Name a plant and an animal extinct species.

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**Group-D (Long answer type)**

4. Answer six question : 5x6=30

4.1 Name the site of secretions and function of the following hormones- Auxine, Gibberellins & Cytokinin.

Or

Discuss briefly about the practical application of plant hormones in Agriculture.

4.2 Name any eight endocrine glands present in human body. What is exocrine gland?

Or

4.3 What is monohybrid cross? State Mendel's law with the help of Monohybrid cross.

4.4 What is reflex action? Explain it with an example.

Or

Write names of five parts of human brain and state their function. <http://www.wbbseonline.com>

4.5 Draw a neat diagram of a nephron and label any six parts of it 2+3

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Or

Draw the sketch of the second and third stages of Mitosis of animal cell division and label any two parts of each of the stages. 2+3

4.6 Write structure of a chromosome and state its three functions.

Or

What is prokaryotic cell and how does it differ from Eukaryotic cells?

4.7 What is a hotspot? Describe the hotspots in India.

Or

Distinguish between

a) National park & Sanctuary

b) In-situ and ex-situ conservation.

4.8 What is green house effect? Discuss its effect on biological system.

Or

What types of lung diseases develop due to environmental pollution? Suggest its remedy.

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