

HISSAN KASKI-Grade XII

Pre- Board Examination – 2071

Biology

Programme: Science

Full Marks: 75

Time: 3hrs

Pass Marks: 27

Shift : Morning

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Section A (Botany)

1. Answer any seven questions in very short.(any seven) [7×1=7]
- What is a lateral meristem?
 - Define radial vascular bundle.
 - What is apical dominance?
 - What is heredity?
 - Define co – dominance.
 - Name the types of natural methods of vegetative propagation through underground stem.
 - Define microsporogenesis.
 - What is cleistogamy?
 - Give any examples of biofertilizers.
 - What is micropropagation?
2. Answer any five questions in brief. (any five) [5×3=15]
- Draw a well labelled diagram of T.S. of a monocot stem.
 - Differentiate cyclic and non cyclic phosphorylation.
 - Discuss the pleiotropic gene inheritance with an example.
 - Describe the structure of DNA molecule (Watson and Crick Model).
 - Describe the law of segregation.
 - Explain the process of fertilization in angiosperms.
 - Discuss the applications of biotechnology.
3. What is secondary growth? Explain the process in dicot stem with suitable sketches. [7.5]

OR

Describe the mechanism of transpiration and mention the factors affecting on its rate.

4. What is polyploidy? Describe the types of polyploidy and its significances. [8.0]

Section B (Zoology)

1. Answer any seven questions in very short.(any seven) [7×1=7]
- Which cell is the longest cell of the body?
 - What is Keratoplasty?
 - Define oxygen dissociation curve.
 - Name enzyme present in gastric juice.
 - Write full form of ACTH.
 - What do you mean by IUDS?
 - State function of sertoli cell.
 - Distinguish between gyri and sulci.
 - Mention causative agent of Kala – azar.
 - Why is SA node known as pace maker?
2. Answer any five questions in brief. (any five) [5×3=15]
- Write structure and function of epithelial tissue.
 - Explain retina of human eye.
 - Give an account of amniocentesis.
 - How is heart beat regulated?
 - Differentiate between sigmoid and exponential curve.
 - Mention symptoms of typhoid.
 - Describe different types of ponds required for fish farming.
3. Explain origin and conduction of heart beat in human heart. [7.5]
- OR
- Describe structure and function of human ear.
4. Discuss causative agent, incubation period, affected organs, mode of transmission, symptoms, prevention and control measures of AIDS. [8]