

BOARD OF SECONDARY EDUCATION, KARACHI
Secondary School Certificate (S.S.C.) Annual Examination

Class X (Science Group)	Biology	2024	English Medium
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Max. Marks: 60 | Time: 3 Hours

SECTION "A" — MULTIPLE CHOICE QUESTIONS (MCQs) Marks: 12

NOTE: (i) Attempt all the Questions of this Section. (ii) Do not copy down the part questions. Write only the answer against the proper number of the Question and its part according to the question Paper. (iii) Each question carries 1 Marks.

1. Choose the correct Answer form the given Options:

1.	The respiratory surface of human is: ☆ Nostril ☆ Bronchiole ☆ Alveoli ☆ Trachea
2.	The network of blood capillaries presents in this layer of skin: ☆ Epidermis ☆ Dermis ☆ Hypodermis ☆ Endodermis
3.	Stimulus is detected by: ☆ Receptor ☆ Effector ☆ Nerves ☆ All of these
4.	Softening and weakening of bone in children due to deficiency of Vitamin D, is called: ☆ Osteoporesis ☆ Osteoarthritis ☆ Rickets ☆ Rheumatic fever
5.	The 3N zygote in angiosperm develops into: ☆ Seed Coat ☆ Cotyledon ☆ Embryo ☆ Endosperm
6.	The chemical material of a chromosome is called: ☆ Cromatids ☆ Chromeres ☆ Chromonema ☆ Chromatin
7.	The group of organisms belong to the same species living in a particular area is called: ☆ Community ☆ Species ☆ Genes ☆ Population
8.	The study of complete graph of human genome is called: ☆ PCR ☆ HGP ☆ Medicines ☆ Soma-Clonal
9.	Medicine for the treatment of Rheumatoid arthritis is obtained from: ☆ Animals ☆ Minerals ☆ Plants ☆ Microorganism
10.	Increase in rate of breathing is due to: ☆ increase CO ₂ in blood ☆ increase O ₂ in blood ☆ decrease CO ₂ in blood ☆ decrease O ₂ in blood
11.	The way of seed production without fusion of male and female gametes is called: ☆ Parthenocarpy ☆ Apomixes ☆ Grafting ☆ Scion
12.	The book "Kitab ul Manazir" is written by: ☆ Jabir Bin Hayan ☆ Ibn-ul-Haitham ☆ Ali Bin Isa ☆ Bu-Ali-Sina

SECTION "B" (Short Answer Question) Marks: 24

NOTE: Answer any **EIGHT** questions from this section. Each question carries THREE (03) Marks.

2.	Why is smoking dangerous for health? And how is it related with respiratory disorders?	3
3.	What is Epilepsy?	3
4.	Write three differences between bone and cartilage.	3
5.	Describe any three functions of joint.	3
6.	Describe variation and explain any two causes of it.	3
7.	What is pollution? How can water pollution be controlled?	3
8.	Describe any three terms from the following: (i) Allele (ii) Dominant Allele (iii) Homologous chromosomes (iv) Recessive Allele	3
9.	Write note on acid rain.	3
10.	Describe briefly the structure of DNA.	3
11.	Draw a neat and labelled diagram of Ovule.	3
12.	What are xerophytes plants?	3
13.	How vaccine works against pathogen?	3

SECTION "C" (Detailed - Answer Question) (24)

NOTE: Attempt any **FOUR** questions from this Section. Each question tries (Six) 6 marks.

14.	What are addictive drugs? Explain any two of them.	6
15.	Draw a neat and labelled diagram of human Kidney or Nephron.	6
16.	Describe the structure and functions of human Ear or Eye.	6
17.	Define Bio-technology. Explain its role in medicine and agriculture.	6
18.	Define Endocrine gland. Describe enzymes secreted from pituitary and thyroid gland.	6
19.	What is meant by sexual and asexual reproduction? Describe any five differences.	6

- Typeset by Tayarri from the printed question paper; no answer key is reproduced. The source sheet is pre-ticked by the publisher, so options are given unmarked.
- Source sheet is a guide reprint: no board monogram and no paper code are printed.
- Board spellings kept verbatim: "Osteoporesis", "Cromatids", "Apomixes", "Homolgous", "Choose the correct Answer *form* the given Options", and "Each question *tries* (Six) 6 marks" in the Section C note.
- Section B question 10 is printed as "10:" with a colon rather than a full stop; reproduced as printed.
- Cross-medium difference: the Urdu-medium printing of this paper lists "Adwiyat" (Medicines) as the **fourth** option of MCQ 8, where this sheet lists Medicines third and Soma-Clonal fourth. See the Urdu-medium file for that paper.