



EXAMINATION MATERIAL ZUEB - 2022

BOTANY XII (PRE-MEDICAL)

SECTION "B" CONSTRUCTED RESPONSE QUESTION (CRQ)

<p>CHAPTER 1 HOMEOSTASIS</p>	<p>(Non-Reasoning)</p> <p><u>Question no.01:</u> Define homeostasis and name its various aspects.</p> <p><u>Question no.02:</u> Differentiate between Transpiration and Guttation.</p>	<p>(Reasoning)</p> <p><u>Question no.01:</u> How plant cope up with salt marshes?</p> <p><u>Question no.02:</u> How Mesophytes prevent excessive transpiration?</p> <p><u>Question no.03:</u> Why plant cell does not burst even if placed in hypotonic solution?</p>
<p>CHAPTER 2 SUPPORT AND MOVEMENT</p>	<p>(Non-Reasoning)</p> <p><u>Question no.01:</u> What are annual rings? How can we estimate the age of the tree?</p> <p><u>Question no.02:</u> Write two advantages of secondary tissue.</p> <p><u>Question no.03:</u> Differentiate between heart wood and sap wood.</p>	<p>(Reasoning)</p> <p><u>Question no.01:</u> How young stem give mechanical support to the plant body?</p> <p><u>Question no.02:</u> Why does wilting of leaves takes place in hot summer days?</p>
<p>CHAPTER 3 CONTROL AND COORDINATION</p>	<p>(Non-Reasoning)</p> <p><u>Question no.01:</u> Mention any two functions of Auxin.</p> <p><u>Question no.02:</u> Define Biological Clock and Circadian Rhythm.</p> <p><u>Question no.03:</u> What are the heat shock protein and what is their main function?</p>	<p>(Reasoning)</p> <p><u>Question no.01:</u> What are the 1st and 2nd line of defence of plant against pathogen?</p> <p><u>Question no.02:</u> How plant cope up with herbivory stress?</p> <p><u>Question no.03:</u> Why ethane is considered as fruit ripening hormone?</p>

<p>CHAPTER 4 REPRODUCTION</p>	<p>(Non-Reasoning)</p> <p><u>Question no.01:</u> Define Pollination. Name its types.</p> <p><u>Question no.02:</u> Define Germination. Name its various types</p> <p><u>Question no.03:</u> Define any 2: <ul style="list-style-type: none"> • Double fertilization • Parthenocarpy • Apomixes </p> <p><u>Question no.04:</u> What do you mean by complete and incomplete flower?</p>	<p>(Reasoning)</p> <p><u>Question no.01:</u> Give any two any two salient features of Gymnosperm life cycle.</p> <p><u>Question no.02:</u> Differentiate between Isogamy & Zoogamy.</p> <p><u>Question no.03:</u> Why parthenogenesis is considered as semi sexual in nature?</p>
<p>CHAPTER 5 GROWTH AND DEVELOPMENT</p>	<p>(Non-Reasoning)</p> <p><u>Question no.01:</u> Explain Apical meristem.</p> <p><u>Question no.02:</u> Define Meristem. Name its various types.</p> <p><u>Question no.03:</u> Describe any two phases of Growth.</p>	<p>(Reasoning)</p> <p><u>Question no.01:</u> Why formative growth phase restricted to the tip of plant.</p> <p><u>Question no.01:</u> Draw any one and show different growing zones L.S of stem OR L.S of Root aspics</p>
<p>CHAPTER 6 CHROMOSOME AND DNA</p>	<p>(Non-Reasoning)</p> <p><u>Question no.01:</u> Define Phenylketonuria.</p> <p><u>Question no.02:</u> Define term Chromosome. Write down the number of chromosomes of the following species: a)Frog b) Human c) Drosophila d) Sugarcane</p> <p><u>Question no.03:</u> Name various type of RNA involved in protein synthesis.</p>	<p>(Reasoning)</p> <p><u>Question no.01:</u> What is an autosome? How many Autosomes are there in a human cell?</p> <p><u>Question no.01:</u> State 4 points of chromosomal theory of heredity.</p> <p><u>Question no.01:</u> Make a chart showing chemical composition of chromosomes. Why gymnosperms have naked seed but not angiosperm?</p> <p><u>Question no.02:</u> Why spermopsida termed as successful group of land plant.</p>

		<p>Question no.03: Draw the labeled diagram of any one of the following: *L. S Male Cone of Pinus T.s of Marchantia thallus</p>
<p>CHAPTER 7 CELL CYCLE</p>	<p>(Non-Reasoning)</p> <p>Question no.01: Name different types of cell division.</p> <p>Question no.02: Define Interphase. Name its sub-stages.</p> <p>Question no.03: Describe the effects of XXY Combination.</p>	<p>(Reasoning)</p> <p>Question no.01: How is Apoptosis different from Necrosis?</p> <p>Question no.02: Explain why interphase is not a resting phase cell of cell cycle?</p>
<p>CHAPTER 8 VARIATION AND GENE</p>	<p>(Non-Reasoning)</p> <p>Question no.01: State the law of independent Assortment. OR Law of segregation.</p> <p>Question no.02: Give the Cross between Red-eyed female and white eyed male in drosophila. OR A color-blind woman is married with a normal man. How many children of this couple are likely to be color blind in F2 generation?</p> <p>Question no.03: Draw a chart showing Phenotype and Genotype of different Blood groups.</p>	<p>(Reasoning)</p> <p>Question no.01: Why is Haemophilia rare in women as compares to men?</p> <p>Question no.02: Which cross helps to determine the homozygosity of a dominant parent?</p> <p>Question no.03: Find the possible blood group of children if the blood group of fathers is O and that the mother AB.</p> <p>Question no.04: Why did Mendel choose pea plant as an experimental material?</p>
<p>CHAPTER 9 ECOSYSTEM</p>	<p>(Non-Reasoning)</p> <p>Question no.01: Name various type of plant on the basis of relative requirement of light.</p> <p>Question no.02: Name only the biotic factors of an ecosystem.</p>	<p>(Reasoning)</p> <p>Question no.01: How many types of decomposers exist in an ecosystem? Name them?</p> <p>Question no.02: Why producers of grass land ecosystem are called bread basket?</p>

**CHAPTER 10
SOME MAJOR
ECOSYSTEM**

(Non-Reasoning)

Question no.01:

Name Coniferous forests of Pakistan.

Question no.02:

Define Desert ecosystem with reference of Pakistan.

(Reasoning)

Question no.01:

How sea divide in horizontal zones?

