ZIAUDDIN UNIVERSITY
EXAMINATION BOARD

EXAMINATION MATERIAL ZUEB – 2022
BOTANY XII (PRE-MEDICAL)

SECTION "A" MULTIPLE CHOICE QUESTION (MCQ'S)

Chapter's Name	**MCQs (Multiple Choice Questions)**	
Homeostasis	**TOPIC:** Homeostasis Osmoregulation in Plant Thermoregulation in plants	**SUB TOPIC** Definition of homeostasis, osmoregulation, excretion and feedback system Types of plant on the basis of osmoregulation Adaptation of plants to low and high temperature.

1) The regulation of temperature up to a tolerable limit is called
- **A.** Osmoregulation
- **B.** Osmoexcretion
- **C.** Thermoregulation
- **D.** Homeostasis

2) Green plants , in light release oxygen because rate of photosynthesis is
- **A.** Higher than the rate of respiration
- **B.** Less than the rate of transpiration
- **C.** Less than the rate of respiration
- **D.** Remain same

3) The halophytes store or excrete out excess salt from these glands present on leaves.
- **A.** Mesogland
- **B.** Hydro glands
- **C.** Salt gland
- **D.** Auxin

4) A solution which has high concentration of solvent than solute is called:
- **A.** Hypotonic
- **B.** Hypertonic
- **C.** Isotonic
- **D.** Saturated solution

5) Plants growing in saline habitat are called:
- **A.** Xerophytes
- **B.** Halophytes
- **C.** Hydrophytes
- **D.** Mesophytes

6) The capacity of a living system to lose water is termed as:
- **A.** Osmotic pressure
- **B.** Solute potential
- **C.** Water potential
- **D.** Osmosis

	TOPIC: Support in plants Movements in plants	SUB TOPIC Parenchyma, collenchyma, sclerenchyma. Fiber, Tracheids and vessels. Secondary tissues and their significance Autonomic and induced movement with types
Support and movement	**7) Tissues, which are formed by the activity of vascular cambium and cork cambium, are termed as:** **A.** Simple tissues **B.** Compound tissues **C.** Primary tissues **D.** Secondary tissues **8) These are simple living tissue with elongated, irregularly thickened walls.** **A.** Parenchyma **B.** Collenchyma **C.** Sclerenchyma **D.** Fibers **9) The region beneath the epidermis is called:** **A.** Cortex **B.** Stele **C.** Epidermis **D.** Pith **10) If the growth in the apex of young stem occurs in zig zag manner than the movement is termed as:** **A.** Nastic **B.** Mutation **C.** Nutation **D.** Nastic **11) Sclerenchyma cells provide the fibers of ham and jute, which are used for making:** **A.** Rope **B.** Cotton **C.** Plastic **D.** Paper **12) It is a non-directional movement of plant:** **A.** Tropic Movement **B.** Tactic Movement **C.** Nastic Movement **D.** Haptonastic Movement	

	TOPIC: Introduction Control in Plants Plant hormones	
Control and coordination	**13) Ripening of fruit is a key role of** **A. Cytokinins** **B. Auxin** **C. Methane** **D. Ethene** **14) Herbivory is the process of eating it, by herbivores animals.** **A.** Animals **B.** Plants **C.** Fishes **D.** Birds **15) It is produced by the plant under adverse environmental conditions.** **A.** Auxin **B.** Gibberellin **C.** Cytokinins **D.** Abscisic acid **16) This hormone is also act as weed killer.** **A.** Auxin **B.** Gibberellin **C.** Cytokinins **D.** Abscisic acid **17) One of the following proteins saves the plant from heating effect** **A.** Shock wave proteins **B.** Heat shock proteins **C.** Heat resistant proteins **D.** Amino acid **18) If a plant is attacked by pathogen, it produces this antibiotic which destroys or inhibits the growth of microorganism.** **A.** Aflatoxin **B.** Chemo toxin **C.** Phytoalexins **D.** Vomitoxin	

	TOPIC: Asexual and Sexual reproduction in plants Pollination, double fertilization Types of germination	SUB TOPIC Types of sexual and asexual reproduction
Reproduction	**19) Term used for morphologically and physiologically similar gametes which fuse to form zygote** **A.** Oogamy **B.** Anisogamy **C.** Isogamy **D.** Heterogamy **20) Asexual reproduction in plants, which produce seeds without that flower being fertilized is called:** **A.** Sporulation **B.** Vegetative Propagation **C.** Apomixes **D.** Parthenogenesis **21) Maize-grain is an example of:** **A.** Parthenocarpy **B.** Epigeal Germination **C.** Hypogeal Germination **D.** Viviparous Germination **22) In the embryo sac three cells are present at the lower region, one is egg cell and the other two cells are called:** **A.** Synergids **B.** Antipodal cells **C.** Definitive nuclei **D.** none of them **23) Fertilization occurs** **A.** Before pollination **B.** After pollination **C.** With pollination **D.** Without pollination **24) As embryo grows, ovule turns into a** **A.** Fruit **B.** Flower **C.** Seed **D.** Ovary	

	TOPIC: Growth and Development in Plants	SUB TOPIC Phases of growth and secondary growth
Growth and development	**25) The growth is confined to the certain regions. These regions are called:** **A.** Embryo **B.** <u>Meristem</u> **C.** Mesophytes **D.** Later stem **26) The first phase of growth in plants is called :** **A.** <u>Cell formative phase</u> **B.** Cell elongation phase **C.** Cell maturation phase **D.** Secondary phase **27) It is permanent irreversible increase in size, weight, shape and structure of an organism.** A. Meristem B. <u>Growth</u> C. Cambium D. Medullary rays	
	TOPIC: Types of chromosomes Chemical composition of chromosomes Chromosomal theory of heredity Brief reference to DNA structure Cells use RNA to make proteins Mutation	**SUB TOPIC** Phases of growth and secondary growth
Chromosome and DNA	**28) In Sugarcane the number of chromosomes are** **A.** 50 **B.** 60 **C.** 70 **D.** <u>80</u> **29) The bead like structure on the chromosomes are called** **A.** Kinetochore **B.** <u>Chromomeres</u> **C.** Centrioles **D.** Centromeres **30) How many nucleotides are present in one complete turn of DNA?** **A.** 2 **B.** 5 **C.** <u>10</u> **D.** 20	

	TOPIC: Interphase Amitosis Mitosis Meiosis	SUB TOPIC Phases of mitosis and significance Phases of meiosis, significance and meiotic errors
Cell cycle	**31) In the amitotic cell division, when the nuclear portions are unequal in size, the process is generally called:** **A.** Karyokinesis **B.** Karyolysis **C.** Nuclear Budding **D.** Nuclear Localization **32) In which phase of cell division chromosomes arrange themselves at the equatorial plane of the spindle?** A. Interphase B. Prophase C. Metaphase D. Anaphase **33) Synapsis takes place in which sub-stage of Meiosis?** **A.** Leptotene **B.** Zygotene **C.** Pachytene **D.** Diplotene **34) The death of a living cell that result from tissue injury is called:** **A.** Necrosis **B.** Apoptosis **C.** Cytokinesis **D.** Cytokinesis **35) Mongolism disease in also known as** **A.** Kline fetter's syndrome **B.** Turner's syndrome **C.** Nelson's syndrome **D.** Down's syndrome **36) Synthesis of new DNA occurs during** **A.** Prophase **B.** Mitosis **C.** Cytokinesis **D.** Interphase	

Variation and gene	TOPIC: Review of Mendel's Laws of inheritance Sex determination and sex linkage in Drosophila\ Sex linked inheritance in man	SUB TOPIC Genes and alleles Law of segregation Single trait inheritance Inheritance of two traits. Test cross ncomplete dominance and co dominance Multiple allele

37) How many pairs of homologous chromosomes are present in Pisum sativum?

- **A.** Five pairs
- **B.** Six pairs
- **C.** Seven pairs
- **D.** Eight pairs

38) A pea plant with yellow seed was crossed to a plant having green seeds. What will happen in F1 generation?

- **A. Half of the seeds will be green**
- **B. All seeds will be yellow**
- **C. Half of the seeds will be yellow**
- **D. All the seeds will be green**

Both will be present in the ratio of 1:2:1

39) The total number of alleles in a population at one time are called:

- **A.** Allele constant
- **B.** Gene pool
- **C.** Gene constant
- **D.** Allele pool

40) If and Rh negative woman marries an Rh positive man, her Children are **Rh positive, because**

- **A.** Rh positive blood is recessive genetic trait
- **B.** Female is Rh negative
- **C.** Male is Rh positive
- **D.** Rh positive blood is dominant genetic trait

41) Which Nobel Prize winner first selected Drosophila as his experimental animal?

- A. **Mendel**
- B. **Darwin**
- C. **T.H. Morgan**
- D. **De Vries**

42) Persons suffering from colour blindness have difficulty in distinguishing

- **A. Red from blue**
- **B. Red from orange**
- **C. Red from Yellow**
- **D. Red from green**

Ecosystem	**TOPIC:** Level of organization The Ecosystem Interdependence of organisms	**SUB TOPIC** Components of ecosystem (biotic and abiotic)
	43) The organisms which can prepare their own food from simple inorganic substances are called **A.** Autotrophs **B.** Heterotrophs **C.** Xerophytes **D.** Mesophytes **44) The association in which one organism gets advantages and other suffers is called** **A.** Symbiosis **B.** Parasitism **C.** Predation **D.** Non-symbiosis **45) The region of earth, where life exists is known as** **A.** Atmosphere **B.** Biosphere **C.** Lithosphere **D.** Hydrosphere	
Some major ecosystem	**TOPIC:** Life in fresh and marine water Terrestrial Ecosystem	**SUB TOPIC** Forest ecosystem Grassland ecosystem Desert ecosystem and tundra.
	46) The places of standing water are known as **A.** Lentic habitat **B.** Lotic habitat **C.** Estuarine habitat **D.** Abyssal habitat **47) The biome which is covered by ice is called** **A.** Savannah **B.** Tundra **C.** Taiga **D.** Deciduous forest **48) Deserts occupy about of land surface of the earth.** **A.** 5% **B.** 8% **C.** 10% **D.** 17%	