TEACHERS' RECRUITMENT BOARD, TRIPURA (TRBT)
EDUCATION (SCHOOL) DEPARTMENT, GOVT. OF TRIPURA
SYLLABUS: BIO. SCIENCE (MCQs OF 150 MARKS): 2016
SELECTION TEST FOR GRADUATE TEACHERS (STGT) FOR CLASSES IX-X

GROUP-A: MARKS 50

1. (a) Definition, Explanation and overall vacations of Photosynthesis. (b) Components of Photosynthesis and their souros and role in photosynthesis. (c) Logjt phase and Dark phase of photosynthesis. (d) Significance of photosynthesis.

2. (a) Definition and explanation of Respiration. (b) Phase of aerobic respiration-Glycolysis, kerb's Cycle, Terminal respiration. (c) Anaerobic respiration and Fermentation. (d) Significance of respiration.

3. (a) Plant nutrition - Autotrophic and heterotrophic nutrition. (b) Different types of heterotrophic nutrition with examples.

4. (a) Transport in plants –Definition and medium of Transport, Osmosis and diffusion. (b) Ascent of sap through xylem. (c) Transportation of food through phloem. (d) Transpiration – Definition Factors affecting Transpiration, Importance of Transpiration.

5. (a) Means of removal of excretory products in plants. (b) Types of excretory products in plants and their economic importance.

6. (a) General idea, definition, characteristics of plants hormones. (b) Site of formation and function of auxin, Gibberellin and cytokinin. (c) Artificial phytohormones.

7. (a) Structure of prokaryotic cell. (b) Structure Eukanyotic plants cell and structure and function of different plant cell organelles.

8. Plants tissue- structure and function of meristematic tissue and permanent tissue.

9. (a) Vegetative reproduction in plants- Natural and artificial. (b) Asexual and dexual reproduction in plants.

10. (a) Definition and explanation of Heredity. (b) Mendel's Monohybrid and dihybrid cross, Laws of Mental.

11. (a) Characteristics of virus. (b) Structure of Bacteriophage and its importance. (c) Beneficial and harmful bacteria and their role. (d) Beneficial and harmful fungi and their role.

GROUP-B: MARKS 50

1. (a) Breathing organs in animals. (b) Mechanism of Breathing in Cockroach, Earthworm and fish.

2. (a) Phases of nutrition in animals. (b) Types of Animal nutrition and nature.

3. (a) Idea of open and Closed circulatory system. (b) Open blood vascular system in cockroach.

4. (a) Locomotors organs of different animals. (b) Locomotion in Amoeba, Earthworm Cockroach fish.

5. (a) Cell cycle – Definition and phases. (b) Types of cell - division and phases. (c) Mitosis division in animals. (d) Significance of mitosis and meiosis division.

6. (a) A sexual reproduction in animals. (b) Parthenogenesis, Neoteny and paedogenesis. (c) Oviparous Viviparous and ovoviviparous animals. (d) External and internal fertilization.

7. (a) Morphological and paleontological evidences in support of organic evolution. (b) Lamarckism. (c) Darwinism.

8. (a) Definition and explanation of Adaptation. (b) Aquatic adaptation in Rohufish and Volant adaptation pigeon.
9. (a) Bio geochemical cycles, Carbon, Nitrogen. (b) Components of ecosystem. (c) Food chain and food nab. (d) Energy food in ecosystem.
10. (a) Conservation of wild life - caucus of wild life depletion, Necessity and wags of wild life conservation. (b) Sanctuary and national park.

GROUP-C: MARKS 50

1. Structure of Breathing organ of human being and breathing mechanism.
2. (a) Types of food, their sources and nutritional importance. (b) Micro and Macro elements in animals and deficiency symptoms. (c) Source, function and deficiency symphony of water soluble and fat soluble vitamins. (d) Digestive system of human. (e) Balanced Diet.
3. (a) Components of Blood and sanction of each component of blood, blood groups, blood coagulation. (b) Internal structure of heart and circulation of blood through it.
4. (a) Structure and sanction of main excretor organ of human. (b) Structure of Nephron and the process of urine formation.
5. (a) Nervous system of human – Components and sanction of brain, spinal cord (Components and sanction), Reflex action with examples. (b) Sense organs – structure and sanction of cye and ear.
6. (a) Location and name of different endocrine glands of human. (b) Hormones recreated from different endocrine gland and their sanction. (c) Gigantism, Dwarfism, Acronagaly, Cretinism, Myxqedema, Diabetes mellitus Diabetes insipidus.
7. (a) Structure of male reproductive system. (b) Structure of female reproductive system. (c) Menstruation cycle. (d) Fertilization. (e) Sexually transmitted diseases.
8. (a) Communicable and non-communicable human diseases. (b) Causal organises, symptoms, prevention and control of human diseases-Malaria, Influenza, Rabies, Tuberculosis, and AIDS. (c) Vaccination and immunisation.

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