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BIO-ZOLOGY - (5) Marks for 11th std.

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Unit - 1 [Volume - 1]

Chapter - 1 [The living World]

- 1) Basic need for classification (2)
- 2) 3 - Domains Life (5)
- 3) 5 (five) Kingdom classification (6)
- 4) Differentiate Binomial & Trinomial nomenclature (10)
- 5) Rules of Nomenclature (11)
- 6) Tools for taxonomy → Classical, Molecular, Automated species identification (12)

Chapter - 2 [Kingdom of Animalia]

- 1) Levels of Organisation (15, 16) → Cell, Tissue, Organ and organ System
- 2) Difference of Diploblastic & Triploblastic (18)
- 3) Short note - Symmetry and its types (18)
- 4) Coelom - Explain (19)
- 5) Classification of Kingdom Animalia (21)
- 6) Special characters of → *Porifera* (22), *Cnidaria* (22), *Ctenophora* (23), *Platyhelminthus* (24), *Aschelminthes* (24), *Annelida* (25), *Arthropoda* (26), *Mollusca* (27), *Echinodermata* (28)
- 7) Differentiate chordates and Non chordates (29)
- 8) General Characters of Chordata (29)
- 9) Urochordata and Cephalochordata (30)
- 10) Vertebrate / chordate Special features (31)
- 11) Amphibia, Reptiles, Aves, Mammals - characters (32, 33, 34)

UNIT - II

Chapter - 3 [Tissue Level of Organization]

- 1) Classification of Animal tissue (43)
- 2) Types of Glandular epithelials (45)
- 3) Connective tissue - Explain (47)

- 4) Specialised Connective tissues (48)
- 5) Types of Muscle tissue (49)
- 6) Syndrome — diseases (50)
- 7) Neural tissue (50) (X)

Chapter - 4 [Organ and Organ Systems in Animals]

- 1) Morphology of Earthworm (56)
- 2) Difference b/w L. maruriti and M. posthuma (57) (X)
- 3) Digestive System Earthworm (58)
- 4) Circulatory System (59) — Earthworm
- 5) Reproductive System Earthworm (61) (X)
- 6) Life cycle of Earthworm (62) (X)
- 7) Morphology of Cockroach (63)
- 8) Male and Female — Differentiate (65)
- 9) Digestive System of Cockroach (65)
- 10) Circulatory System of Cockroach (67)
- 11) Reproductive Systems of Cockroach (69) (X)
- 12) Morphology of frog (71)
- 13) Digestive, (73), Circulation (74), Reproductive System (76, 77)
- 14) Metamorphosis of frog (77) (X)

UNIT - III

Chapter - 5 [Digestion And absorption]

- 1) Digestion Process of Human (84)
- 2) Histology of Gut (87) (X)
- 3) Short note on Salivary gland (88)
- 4) Liver — Short note (89)
- 5) Functions of Liver (89) (X)
- 6) Pancreas (90)
- 7) Digestion in Small intestine (91) (92) (X)

(3)

- 8) Absorption and Assimilation Process (93)
- 9) Calorie value of Carbohydrate, Proteins, Fats (96)
- 10) Nutrition and digestive disorders (96, 97, 98)

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Chapter - 6 [Respiration]

- 1) Functions of respiratory System (106)
- 2) Human Respiratory System (106, 107)
- 3) Characters of respiratory Surface (109)
- 4) Steps involved in respiration (109)
- 5) Mechanism of breathing (109, 110) (✓)
- 6) Surfactants (109)
- 7) Respiratory volumes and Capacities (111, 112)
- 8) Exchange of gases in Alveoli (112) (✓)
- 9) Difference of Haemoglobin and Methemoglobin (113)
- 10) Transport of O_2 (114)
- 11) Transport of CO_2 (114)
- 12) Difference of Inspiration and Expiration (115) (✓)
- 13) Regulation of respiration (116)
- 14) Problems in Oxygen transport (116)
- 15) Disorders of respiratory System (117)
- 16) Effects of Smoking (117)
- 17) COPD - Explain (119) (✓)

Chapter - 7 [Body fluids and Circulation]

- 1) Composition of Blood - Plasma (129)
- 2) Formed Elements (129, 130)
- 3) ABO blood grouping (131, 132) (✓)
- 4) Rh factor (132)
- 5) Coagulation process of blood (132) (✓)
- 6) Lymph functions (133, 134) (✓)

- 7) Structure of blood vessels (134, 135)
- 8) Artery and Veins - Difference (135) (X)
- 9) Human Circulatory System (138)
- 10) Origin and Conduction of Heart (138) (X)
- 11) Cardiac cycle (141) (X)
- 12) ECG - (142) (X)
- 13) Blood pressure - (141)
- 14) Describe double circulation (145)
- 15) Disorders of circulatory system (146)
- 16) CPR - Explain (147)
- 17) Myocardial infarction (146) (X)

Volume - II

Unit - III

Chapter - 8 [Excretion]

- 1) Modes of Excretion (2)
- 2) Various types of organism, Excretory wastes (3)
- 3) Human Excretory System (4)
- 4) Draw the Structure of Kidney (L.S) (5) (X)
- 5) Urine formation process (7)
- 6) Structure of nephron - Explain (5) (X)
- 7) Draw the Diagram of Nephron (6)
- 8) Ornithine Cycle (9)
- 9) Regulation of kidney function (ADH and Diabetes) (14) (X)
- 10) Explain - Renin Angiotensin (16)
- 11) ANP Explain (16)
- 12) Disorders of Excretory System related diseases (17, 18)
- 13) Explain - Haemo-dialysis (18) (X)
- 14) Kidney Transplantation (19)

Unit - IV

Chapter - 9 [Locomotion and Movement]

- 1) What are the types of Movement (28) (✓)
- 2) Types of Muscle (28), Skeletal Muscle Structure (28)
- 3) Structure of contractile protein (30)
- 4) Skeletal muscle - flow chart (31)
- 5) Muscle contraction - Sliding filament theory (32, 33)
- 6) SMGA - Explain (34) (✗)
- 7) Types of Skeletal Muscle contraction (35)
- 8) Muscle fibres of Skeletal muscle (35)
- 9) Functions of Skeletal System (37) (✓)
- 10) Skull - Bones Explain (37)
- 11) Vertebral Column - Explain (37)
- 12) Rib Cage - Short notes (38)
- 13) Appendicular Skeleton (39, 40)
- 14) Upper and Lower Limb - Explain (40, 41) (✗)
- 15) Structure of typical Long bone (41, 42) (✗)
- 16) What are the types of Joints (42) (✗)
- 17) Disorders of Muscular and Skeletal System (46, 47)
- 18) Benefits of regular Exercise (47)
- 19) Beneficials of Exercise by physiological actions (47)

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Chapter - 10 [Neural Control and Co-ordination]

- 1) Neural System - functions (54)
- 2) Structure of Neuron (55) (✓)
- 3) Explain Neuron and its types (55, 56)
- 4) Types of Channels and gates (57)
- 5) Transmission of impulse Process (57)
- 6) Synaptic transmission process (59, 60)
- 7) Brain - Explain (61, 62)
- 8) Explain - Limbic System (64) (✗)

- 7) Explain - Spinal Cord (66)
- 10) Reflex action and reflex arc - Explain (67)
- 11) What are the functions of reflex arc (67) (+)
- 12) Differentiate Conditioned & Unconditioned reflex (67, 68)
- 13) PNS - Explain (69) (x)
- 14) ANS - Explain (69)
- 15) Difference of SNS and PNS (70)
- 16) Photo receptor eye - Short note (71)
- 17) Draw a diagram of Eye - Label the parts (73) (+)
- 18) Mechanism of vision (Rod and cone cells) (74) (x)
- 19) Difference between Rod and cone cells (75)
- 20) Photo-receptor - Ear - Explain (76)
- 21) Mechanism of Hearing (77, 78) (+)
- 22) Defects of eyes (74, 75) (x)
- 23) Defects of Ear (78, 79) (x)
- 24) Olfactory receptor - Explain (80)
- 25) Gustatory receptor (80)
- 26) Skin - Sense of touch (81, 82)

Chapter - 11 [Chemical Co-ordination and Integration]

- 1) Short note on Hypothalamus (92)
- 2) Hormones and functions Table (93)
- 3) Shortly Explain - Hypophysis/pituitary (94)
- 4) Hormones Secreted in the region of Adenohypophysis (94, 95)
- 5) Hormones Secreted in Neurohypophysis (95) (+) (+)
- 6) Pineal gland (or) Third eye Explain (96)
- 7) Thyroid structure Explain with Diagram (96)
- 8) What are the functions of Thyroxine (97) (+)
- 9) Functions of T.G.T (97)
- 10) Parathyroid (or) Parathormone Explain (98)

- 11) Thyroid Explain with Structure (98) (X)
- 12) Adrenal gland Explain with Diagram (98)
- 13) Pancreas Explain (100)
- 14) Difference of Insulin and glucagon (100) (X)
- 15) Functions of Testosterone & Progesterone (101, 102)
- 16) Hormones of GIT, Heart, Kidney (103)
- 17) Diseases for Hypo and Hyper activity of glands (103)
- 18) Difference Hypo and Hyperglycemia (106, 107) (X)
- 19) Mechanism of Hormone Action (109)
- 20)

Chapter - 12 [Trends in Economic Zoology]

- 1) Discuss Vermiculture (117)
- 2) Vermicomposting - Explain (119) (X)
- 3) Advantages of Using Vermicompost (120) (X)
- 4) Sericulture - Process Explain (120, 121)
- 5) Write Life cycle of Bombyx Mori (121, 122) (X)
- 6) Explain Rearing of Silkworms (124)
- 7) What are the Uses of Silk (125) (X)
- 8) Apiculture Process → Types of Bees (126)
- 9) Products of Honey bee and Economic importance (129)
- 10) Life cycle of Lac (130) (X)
- 11) Write Economic importance of Lac (131) (X)
- 12) Aquaponics - Explain (131)
- 13) What are the Advantages of Aquaponic gardening (132, 133)
- 14) What are the characteristics of cultivable fishes (134)
- 15) Types of Pond - Explain (135)
- 16) What are the types of breeding (135)
- 17) Characteristics of composite fish farming (137)
- 18) Economic importance of fishes (137) (X)
- 19) Prawn culture - Explain (137, 138)

- 20) Pearl culture & formation of Pearl (139)
- 21) Artificial Pearl culture programme, what are the measures involved (140)
- 22) What are the Objectives of Animal breeding (142)
- 23) Explain Methods of Animal breeding (142)
- 24) MOET Explain (143)
- 25) Artificial insemination and Advantages (142, 143)
- 26) what are the types of Breeds (143)
- 27) Write Common diseases of Cattles (143)
- 28) Uses of Cattle breeders (144)
- 29) Poultry farming - Types of chicks (145)
- 30) Stages involved in rearing of chicks (146)
- 31) Poultry byproducts (147)
- 32) Benefits of poultry farming (147)
- 33) Duck farming - peculiarity of ducks - Uses (147)

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Note: The Symbol of [·X·] this one is Most important and possible to ^{ask} Public Exam in my view point.

Prepared by.
P. PALANIVELU. MSc. Med.,
PGIT in ZOOLOGY
P.S.G. MAT. HR. SEC. SCHOOL
SANKARI