University of Health Sciences, Lahore

Total MCQs: 220 Max. Marks: 1100

ENTRANCE TEST – 2015

For F.Sc. and Non-F.Sc. Students

Time Allowed: 150 minutes

Instructions:

i. Read the instructions on the MCQs Response Form carefully.
ii. Choose the **Single Best Answer** for each question.
iii. Candidates are strictly prohibited from giving any identification mark except Roll No. & Signature in the specified columns only.

COMPULSORY QUESTION FOR IDENTIFICATION

Q-ID. What is the color of your Question Paper?
A) White. C) Pink.
B) Blue. D) Green.

Ans: Colour of your Question Paper is Blue. Fill the Circle Corresponding to Letter 'B' against 'ID' in your MCQ response form (Exactly as shown in the diagram).

	A	B	C	D
ID	○	●	○	○
1	○	○	○	○
2	○	○	○	○
3	○	○	○	○
4	○	○	○	○

BIOLOGY

Q.133 In ________ response, β-cells produce plasma cells that synthesize antibodies and release in blood plasma and tissue fluid.
A) Cell-Mediated C) Humoral
B) Hormonal D) Phototactic

Q.134 Passive immunity is used against:
A) Malaria C) Dengue
B) Typhoid D) Tetanus

Q.135 B-lymphocytes are named due to their relationship with:
A) Blood C) Bone Marrow
B) Bursa of Fabricius D) Bile Duct

Q.136 In light independent stage of photosynthesis, the CO_2 combines with ______ to form an unstable 6-carbon intermediate.
A) Ribulose bisphosphate C) Glycerate-3-phosphate
B) Hexose sugar D) Glyceraldehyde-9-phosphate

Q.137 In glycolysis, glycerate-1,3-bisphosphate is converted into glycerate-3-phosphate by losing ________ phosphate molecules.
A) 3 C) 1
B) 2 D) 4

Q.138 Malate is oxidized by ______ to oxaloacetate in Krebs's Cycle.
A) ATP C) NAD
B) NADP D) FAD

Q.139 In electron transport chain, the electrons from NADH and $FADH_2$ are passed to;
A) Cytochrome a C) Co-enzyme c
B) Cytochrome a_3 D) Co-enzyme Q

Q.140 Carriers of the respiratory chain are located on:
A) Matrix of mitochondria C) Inner membrane of mitochondria
B) Outer membrane of mitochondria D) Cytoplasmic matrix

Q.141 In cystic fibrosis, liposomes-microscopic vesicles are sued which are coated with:
A) Healthy Gene C) Protein
B) Chromosome D) Carbohydrate

Q.142 The DNA formed by the reverse transcription is called:
A) rDNA C) cDNA
B) dDNA D) DNA

Q.143 Bacterial cells take up recombinant plasmids when they are treated with:
A) $CaCl_2$ C) KCl
B) NaCl D) NaOH

Q.144 Which one of the following is made up of radioactively labelled nucleotides?
A) Phage DNA C) Recombinant DNA
B) Genomic Library D) Gene Probe

Q.145 A technique in transgenic animals in which desired gene is inserted into the eggs of animal is called:
A) Embryonic Stem Cell mediated Transfer C) Retro-virus mediated gene Transfer
B) Microinjection D) Virus vectors

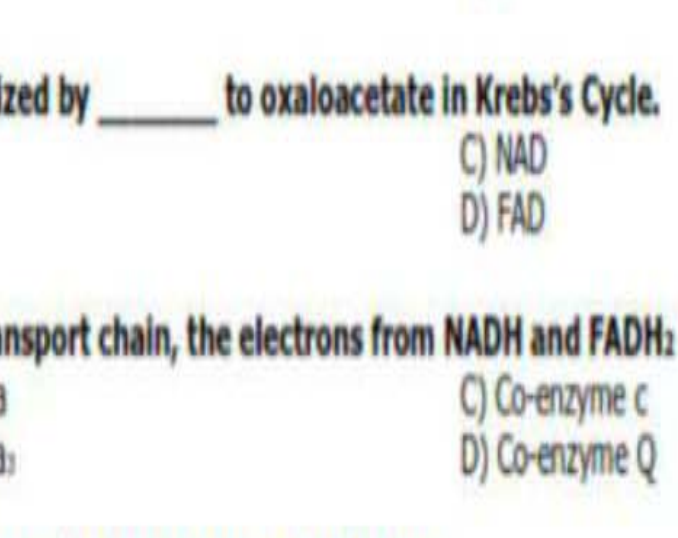
Q.146 Ozone is a layer of atmosphere extending from ________ km above earth and absorbs ultraviolent radiations.
A) 10-50 C) 5-30
B) 50-60 D) 10-80

Q.147 Light rays from the sun are absorbed by CO_2 and re-radiate as ______ radiations.
A) Ultraviolent C) Infra-Red
B) Indigo D) Green

Q.148 The gases which are produced by burning of fossils fuels and are responsible for acid rain are:
A) CFCs C) HCl and Oxides of Nitrogen
B) CO_2 and CO D) SO_2 and Oxides of Nitrogen

Q.149 During successions, the first organisms that develop on bare rock are:
A) Lichens C) Moss
B) Shrubs D) Herbs

Q.150 Trophic level of a herbivore in given food-web is:



A) 1 C) 4
B) 3 D) 2

Q.151 During maternal mitosis, non-disjunction of autosomal chromosome pair results in the formation of an egg having 24 chromosomes in:
A) Klinefelter's Syndrome C) Turner's Syndrome
B) Down's Syndrome D) Jacob's Syndrome

Q.152 Typical symptoms like enlarged breasts and small testis in male are attributed to:
A) Down's Syndrome C) Klinefelter's Syndrome
B) Turner's Syndrome D) Phenylketonuria

Q.153 Fluid mosaic model of plasma membrane states that protein molecules float in a fluid ____ layer.
A) Galactose C) Glucose
B) Phospholipids D) Carbohydrate

Q.154 How many triplets of microtubules are present in centriole?
A) Ten C) Nine
B) Eight D) Seven

Q.155 Turner's syndrome is characterized by having:
A) Trisomy 21 C) Trisomy 18
B) 44 + XXY D) 44 + XO

Q.156 Which one of the following cell structure is involved in the synthesis of lipids?
A) Endoplasmic Reticulum C) Centriole
B) Golgi Complex D) Mitochondria

Q.157 Monosaccharides are major components of:
A) DNA, ATP, Ribulose bisphosphate and Cysteine C) DNA, NADP, ATP and Ribulose bisphosphate
B) DNA, NAD and Insulin D) DNA, RNA and Myosin

Q.158 Blood group antigen contains:
A) Glycoproteins C) Glycolipids
B) Phospholipids D) Sphingolipids

Q.159 Myosin is a ________ type of protein.
A) Intermediate C) Globular
B) Simple D) Fibrous

Q.160 Which one of the following is an example of unsaturated fatty acid?
A) Butyric Acid C) Palmitic Acid
B) Oleic Acid D) Acetic Acid

Q.161 Number of base pairs in one turn of DNA is:
A) 10 C) 34
B) 2 D) 54

Q.162 The lymph vessel of villi is called:
A) Epithelium C) Adrenals
B) Afferent lymph vessel D) Lacteals

Q.163 Right atrium is separated from right ventricle by:
A) Bicuspid Valve C) Tricuspid Valve
B) Semilunar Valve D) Interatrial Septum

Q.164 The flaps of tricuspid valves are attached to muscular extensions of right ventricle known as:
A) Smooth Muscles C) Intercostal Muscles
B) Papillary Muscles D) Skeletal Muscles

Q.165 One complete heart beat consists of one systole and one diastole and lasts for about:
A) 0.8 sec C) 0.4 sec
B) 0.2 sec D) 0.5 sec

Q.166 The heart beat cycle starts when electric impulses are generated from;
A) AV Node C) SA Node
B) SV Node D) PQ Node

Q.167 About 70-85% CO_2 in blood is carried:
A) As carbonylase myoglobin C) Freely as CO_2
B) With proteins in plasma D) As bicarbonate

Q.168 Those nephrons which are present along the border of the cortex and medulla are called:
A) Juxtamedullary nephrons C) Internal nephrons
B) Cortical nephrons D) Outer nephrons

Q.169 When water is in short supply, increased water retention occurs through the:
A) Cortical nephrons C) Juxtamedullary nephrons
B) Proximal Convoluted Tubule D) The tissue of cortex

Q.170 In nephrons, counter-current multiplier occurs at:
A) Loop of Henle C) Bowman's Capsule
B) Collecting Duct D) Glomerulus

Q.171 Ascending loop of Henle does not allow outflow of:
A) Na^+ ions C) Cl^- ions
B) K^+ ions D) Water

Q.172 A larger quantity of dilute urine is produced in diabetes insipidus. This disease is due to the deficiency of:
A) Antidiuretic Hormone C) Thyroxine
B) Aldosterone D) Cortisol

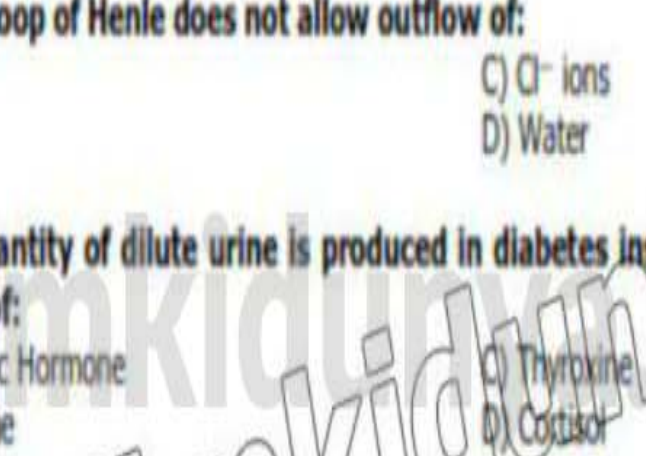
Q.173 Water and sodium ions are reabsorbed in:
A) Urinary Bladder and Urethra C) Adrenal Cortex
B) Ureter D) Proximal Convoluted Tubule & Collecting Duct

Q.174 Which disease is responsible for dementia (memory loss)?
A) Parkinson's Disease C) Epilepsy
B) Alzheimer's Disease D) Grave's Disease

Q.175 Neurotransmitter secreted at synapse outside the central nervous system is:
A) Dopamine C) Androgen
B) Polypeptide D) Acetylcholine

Q.176 Conduction of action potentials from one mode of Ranvier to another in myelinated neurons is through:
A) Hyperpolarization C) Depolarization
B) Resting Membrane Potential D) Saltatory Conduction

Q.177 In the following diagram of action potential in a neuron, 'x' depicts:



A) Depolarization C) Repolarization
B) Polarization D) Hyperpolarization

Q.178 In human testis, which structure is responsible for carrying sperm from inside the testis?
A) Seminiferous tubules C) Seminal Vesicles
B) Urinogenital duct D) Vasa efferentia

Q.179 In which part of female reproductive system fertilization takes place?
A) Proximal part of oviduct C) Placenta
B) Uterus D) Vagina

Q.180 In females, FSH stimulates the ovary to produce:
A) Progesterone C) Oestrogen
B) Lactin D) Oxytocin

Q.181 Syphilis, sexually transmitted disease is caused by:
A) HIV C) Neisseria gonorrhoeae
B) Treponema pallidum D) Type 2 virus

Q.182 In which phase of human female menstrual cycle, endometrium prepares for the implantation of embryo?
A) Proliferative phase C) Secretory phase
B) Menstrual phase D) Ovulation phase

Q.183 The total number of cervical and thoracic vertebrate in human vertebral column is:
A) 7 C) 14
B) 19 D) 33

Q.184 A sarcomere is the region of a myofibril between two successive:
A) M-lines C) I-bands
B) Z-lines D) T-tubules

Q.185 The sarcolemma of muscle fibre folds inwards and forms a system of tubes which runs through the sarcoplasm called:
A) Myofilaments C) Z-lines
B) Sarcoplasmic reticulum D) Transverse tubules

Q.186 According to sliding filament theory, when muscle fibers are stimulated by nervous system, which of the following changes occurs?
A) I-bands shorten C) Z-lines move further apart
B) H-zone becomes more visible D) A-bands shorten

Q.187 If lactic acid build up in thigh muscles, it causes muscle tiredness and pain. This condition is called:
A) Muscle Fatigue C) Cramps
B) Tetany D) Oxygen debt in muscles

Q.188 Thyroxine deficiency in adults' results in a condition called:
A) Cretinism C) Thyrotoxima
B) Hypothyroidism D) Myxoedema

Q.189 α-cells of pancreas secrete a hormone known as:
A) Glucagon C) Gastrin
B) Insulin D) Rennin

Q.190 X-linked recessive trait is:
A) Hypophosphatemia C) Haemophilia
B) Vitamin-D resistant rickets D) Diabetes Mellitus

Q.191 Human skin colour is a good example of?
A) Sex-linked inheritance C) x-linked inheritance
B) Polygenic inheritance D) y-linked inheritance

Q.192 From evolutionary point of view, which respiratory protein is common in many organisms?
A) Cytochrome a C) Cytochrome c
B) Cytochrome b D) Cytochrome d

Q.193 Number of pairs of autosomes in humans in:
A) 23 C) 21
B) 24 D) 22

Q.194 ABO blood system is an example of:
A) Polygenes C) Multiple Alleles
B) Multiple genes D) Multiple Mutation

Q.195 Which molecular structure of enzyme is essential for activity of enzyme?
A) Primary Structure C) Secondary Structure
B) Quaternary Structure D) Tertiary Structure

Q.196 Which one of the following edible products is widely pasteurized?
A) Soft drinks C) Milk
B) Mango squash D) Orange Juice

Q.197 Ribosomes are tiny organisms, which are involved in the synthesis of:
A) Protein C) Nucleus
B) RNA D) Nuclosome

Q.198 Which organelle is bounded by two membranes?
A) Ribosome C) Lysosome
B) Mitochondria D) Nucleolus

Q.199 At the beginning of nuclear division, the number of microtubule triplets in two pairs of centrioles that migrate to opposite poles are:
A) 9 C) 108
B) 18 D) 36

Q.200 The disease in which an individual has extra sex chromosome (44 + XXY) is known as:
A) Down's syndrome C) Klinefelter's syndrome
B) Tuner's syndrome D) Jacob's syndrome

Q.201 Over-secretion of cortical hormone causes a disease called;
A) Cushing's Disease C) Hypoglycemia
B) Diabetes Mellitus D) Addison's Disease

Q.202 Ejection of milk from mammary glands is under the control of which one of the following hormones?
A) Androgen C) Progesterone
B) Oxytocin D) Estrogen

Q.203 Granulocytes are:
A) Monocytes, Eosinophils, Basophils C) Neurophils, Eosinophils, Basophils
B) Basophils, Macrophages, Neurophils D) Monocytes, Macrophages, Basophils

Q.204 Response of body against the transplanted organ is:
A) Homeostatic Response C) Primary Response
B) Behavioral Response D) Cell-mediated Response

Q.205 Some enzymes require helper which is non-protein part for its efficient functioning that is called:
A) Accelerator C) Prosthetic group
B) Cofactor D) Apoenzyme

Q.206 Pepsin, protein digesting enzymes, sets best pH:
A) 3.00 C) 2.00
B) 4.50 D) 6.00

Q.207 Which one of the following is an example of competitive inhibitor?
A) Glucose C) Succinic Acid
B) Fumerate D) Melonate

Q.208 HIV is classified as:
A) Bacteriophage C) Retrovirus
B) Oncovirus D) Icosahedral virus

Q.209 Cyanobacteria are:
A) Photoautotrophic bacteria C) Saprotrophic bacteria
B) Chemosynthetic bacteria D) Parasitic bacteria

Q.210 During favourable conditions, certain bacteria produces:
A) Ribosomes C) Mitochondria
B) Plasmids D) Spores

Q.211 In rhizopus, zygote forms temporary, dormant, thick-walled resistant structure called:
A) Zygospore C) Sporangia
B) Spore D) Hyera

Q.212 ________ is a triploblastic organism.
A) Jelly Fish C) Tapeworm
B) Sea Anemone D) Corals

Q.213 In arthropods, the body cavity is in the form of:
A) Coelem C) Psedocoelem
B) Haemocoel D) Enteron

Q.214 ________ is a good example of polymorphism.
A) Hydra C) Obelia
B) Starfish D) Equplectella

Q.215 Name common gut roundworm parasite of human and pigs.
A) Ascaris lumbercoides C) Pheretima posthuma
B) Lumbericus terresaris D) Hirudo Medicinalis

Q.216 ________ is also called liver fluke.
A) Dugesia C) Fasciola
B) Taenia D) Coral

Q.217 Oxyntic cells in stomach produces:
A) Pepsin C) Gastrin
B) Pepsinogen D) HCl

Q.218 The hormone which inhibits the secretion of pancreatic juice is:
A) Secretin C) Thyroxine
B) Gastrin D) Parathormone

Q.219 Trypsinogen is activated to trypsin by:
A) HCl C) Mucus
B) Enterokinase D) Gastrin

Q.220 The emulsification of fats is the role of:
A) Saliva C) Gastrin
B) Pancreatic juice D) Bile