



राजस्थान लोक सेवा आयोग
Rajasthan Public Service Commission

ISO 9001 : 2



सत्यमेव जयते

Ques. Paper : BioChemist

Mode of Exam: Online
Date of Exam: 14-07-2015
Duration of Exam: 2 hours
No of Questions: 100

Ques # :1

Transfer of an amino group from an amino acid to an alpha keto acid is done by:

- 1) Transaminases
 - 2) Aminases
 - 3) Transketolase
 - 4) Decarboxylase
-

Ques # :2

Which product of citric acid cycle is used in detoxification of ammonia in brain

- 1) Oxaloacetate
 - 2) Alpha ketoglutarate
 - 3) Succinate
 - 4) Citrate
-

Ques # :3

Protein act as buffer due to which property

- 1) Colloid
 - 2) Basis
 - 3) Acidic
 - 4) Amphipathic
-

Ques # :4

Ammonia is detoxified in brain to:

- 1) Urea
 - 2) Glutamine
 - 3) GABA
 - 4) Uric acid
-

Ques # :5

Urea cycle is present in:

- 1) Liver
 - 2) GIT
 - 3) Spleen
 - 4) Kidney
-

Ques # :6

Protein is purified using ammonium sulfate by:

- 1) Salting out
 - 2) Ion exchange chromatography
 - 3) Mass chromatography
 - 4) Molecular size exclusion
-

Ques # :7

Aromatic ring is presented in

- 1) Arginine
 - 2) Glycine
 - 3) Phenylalanine
 - 4) Lysine
-

Ques # :8

Protein that precipitate on heating to 45° C & redissolve on boiling is:

- 1) Bence Jones Protein
 - 2) gamma globulin
 - 3) Albumin
 - 4) Myosin
-

Ques # :9

Tyrosinase is:

- 1) Oxidase
 - 2) Transferase
 - 3) Lyase
 - 4) Isomerase
-

Ques # :10

Mitochondrial DNA is

- 1) Paternally inherited
 - 2) Maternally inherited
 - 3) Horizontal inheritance
 - 4) Vertical inheritance
-

Ques # :11

Which amino acid migrates fastest on Chromatography on carboxymethyl cellulose medium

- 1) Aspartic acid
 - 2) Valine
 - 3) Lysin
 - 4) Glycine
-

Ques # :12

Non functional plasma enzymes are all except

- 1) Alkaline Phosphotase
 - 2) Acid Phophotase
 - 3) Lipoprotein lipase
 - 4) gamma glutamyl transpeptidase
-

Ques # :13

End of chromosomes are replicated by:

- 1) Telomerase
 - 2) Centromese
 - 3) Restriction Endonuclease
 - 4) Exonuclease
-

Ques # :14

Okazaki segments are required for:

- 1) DNA synthesis
- 2) RNA synthesis

- 3) Protei synthesis
 - 4) None of them
-

Ques # :15

Refsum's disease is due to deficiency of which of the following enzyme

- 1) Malonate dehydrogenase
 - 2) Thiophorase
 - 3) Succinate thiopase
 - 4) Phytanic acid oxidase
-

Ques # :16

Which process separates the fragments of DNA

- 1) Gel Centrifugation
 - 2) Paper chromatography
 - 3) High speed centrifugation
 - 4) Thin layer Chromatography
-

Ques # :17

Sulphur containing amino acid is

- 1) Asparagine
 - 2) Methionine
 - 3) Glycine
 - 4) Alanine
-

Ques # :18

The main function of mitochondria is

- 1) Protein synthesis
 - 2) Oxidation
 - 3) Electron transfer
 - 4) Fat synthesis
-

Ques # :19

Increased risk of MI is associated with which amino acid

- 1) Methionine
 - 2) Hymocysteine
 - 3) Ornithine
 - 4) Valine
-

Ques # :20

UV light damage to the DNA leads to

- 1) Formation of pyrimidine dimers
 - 2) No damage to DNA
 - 3) DNA hydrolysis
 - 4) Double stranded breaks
-

Ques # :21

the tertiary structure of Protein is detected by:

- 1) X-ray diffraction/Crystallography
 - 2) Spectrophotometry
 - 3) Electrophoresis
 - 4) Chromatography
-

Ques # :22

Vitamin A is stored mainly as Retinolesters in

- 1) Kidneys
 - 2) Muscle
 - 3) Liver
 - 4) Retina
-

Ques # :23

Enzymes not involved in glycolysis is

- 1) Enolase
 - 2) Phosphoglyceromutase
 - 3) aldolase
 - 4) Glycerophosphate dehydrogenase
-

Ques # :24

Which of the following has no free aldehyde or ketone group

- 1) Fructose
 - 2) Maltose
 - 3) Sucrose
 - 4) Galactose
-

Ques # :25

Part of mRNA removed during protein synthesis

- 1) Intron
 - 2) Codon
 - 3) Exon
 - 4) Cistron
-

Ques # :26

The sugar component of cerebrosides is

- 1) Fructose
 - 2) Sucrose
 - 3) Galactose
 - 4) Maltose
-

Ques # :27

Mousy odour urine is seen in

- 1) Maple syrup urine disease
 - 2) PKU
 - 3) Isovaleric aciduria
 - 4) Cystinuria
-

Ques # :28

Pyruvate dehydrogenase contains all except

- 1) Biotin
 - 2) NAD
 - 3) FAD
 - 4) CoA
-

Ques # :29

Protein are sorted by:

- 1) Golgi bodies
 - 2) Mitochondria
 - 3) Ribosomes
 - 4) Nuclear Membrane
-

Ques # :30

Muscles are not involved in which glycogen storage disease

- 1) I
- 2) II
- 3) III

4) IV

Ques # :31

The activity of carboxylase is dependent upon the positive allosteric effect of:

- 1) Succinate
 - 2) AMP
 - 3) Isocitrate
 - 4) Acetyl CoA
-

Ques # :32

Ribosomes has following enzymatic activity

- 1) peptidyl tranferase
 - 2) Peptidase
 - 3) Aminoacycle + RNA synthelase
 - 4) Gtpase
-

Ques # :33

The substance essential for transfer of fatty acids across mitochondrial membrane

- 1) Creatine
 - 2) Creatinin
 - 3) Carnitine
 - 4) Coenzyme A
-

Ques # :34

Microsatelite sequence is

- 1) Small satelite
 - 2) Extra Chromosomal DNA
 - 3) Short sequence (2-5) repeat DNA
 - 4) Looped DNA
-

Ques # :35

If starvation exceeds 7 day, the major nutritional supply of the brain comes from

- 1) Fatty acids
 - 2) Ketone Bodies
 - 3) Protein breakdown
 - 4) Carbohydrate breakdown
-

Ques # :36

DNA estimation can be done by:

- 1) Spirometer
 - 2) Spectrophotometer
 - 3) Ph meter
 - 4) Sphygnometer
-

Ques # :37

FIGLU is a metabolite of

- 1) Revoflavin
 - 2) Thyrosine
 - 3) Histidine
 - 4) Alamine
-

Ques # :38

The enzymes used in polymerase chain reaction :

- 1) Thermostable enzymes
 - 2) Enzymes stabiliser
 - 3) Inorganic ion
 - 4) Inorganic metal
-

Ques # :39

All of the following enzymes are involved in oxidation reduction reaction except

- 1) Dehydrogenase
 - 2) Hydrolases
 - 3) Oxygenase
 - 4) Peroxidases
-

Ques # :40

Which coenzyme is responsible for carboxylation reaction

- 1) Biotin
 - 2) FAD
 - 3) NADH
 - 4) TPD
-

Ques # :41

Which is true about Phage DNA

- 1) Antibiotic susceptibility
 - 2) Restriction enzyme sites
 - 3) Hexagonal DNA
 - 4) Carrier short segment of DNA
-

Ques # :42

Ketone body formation without glycosuria seen in :

- 1) Diabetes Mellitus
 - 2) Diabetes Insipidus
 - 3) Prolonged starvation
 - 4) Obesity
-

Ques # :43

Western Blot technique is done for

- 1) Mitochondrial RNA
 - 2) DNA
 - 3) rRNA
 - 4) Proteins
-

Ques # :44

Reverse transcriptase is

- 1) DNA dependent RNA polymerase
 - 2) RNA dependent DNA polymerase
 - 3) DNA dependent DNA polymerase
 - 4) RNA dependent RNA polymerase
-

Ques # :45

How many ATP's are formed in case of β oxidation of stearic acid :

- 1) 7
 - 2) 18
 - 3) 56
 - 4) 147
-

Ques # :46

Study of structure and product of gene is

- 1) Genomics
- 2) Inoteomics
- 3) Bioinformatics

4) Cytogenetics

Ques # :47

Bile acids are derived from

- 1) Fatty acids
 - 2) Cholesterol
 - 3) Bilirubin
 - 4) Proteins
-

Ques # :48

Zinc is cofactor for

- 1) Alcohol dehydrogenase
 - 2) Pyruvate carboxylase
 - 3) Hexokinase
 - 4) Alphaketo glutarate dehydrogenase
-

Ques # :49

Which biochemical pathway doesnot occur in the mitochondria

- 1) Kreb's cycle
 - 2) Urea cycle
 - 3) gluconeogenase
 - 4) Fatty acid synthesis
-

Ques # :50

Which of the following is increased in Lipoprotein lipase deficiency

- 1) VLDL
 - 2) LDL
 - 3) HDL
 - 4) Chylomicron
-

Ques # :51

Which vein in anticubital fossa is preferred site for collection of venous blood in adult

- 1) Brachial
 - 2) Radial
 - 3) Median cubital
 - 4) Cubital
-

Ques # :52

Name the anticoagulant among following

- 1) Fumarate
 - 2) Idoacetate
 - 3) Oxalates
 - 4) Arsenic
-

Ques # :53

Heparin is an anticoagulant which accelerates action of :

- 1) Prothrombin
 - 2) Antithrombin III
 - 3) Factor 2
 - 4) Factor 4
-

Ques # :54

Normal level of serum urea is :

- 1) 40-80 mg/dl
 - 2) 20-30 mg/dl
 - 3) 20-45 mg/dl
 - 4) 80-100 mg/dl
-

Ques # :55

Normal level of HbA1C is

- 1) 2-3%
 - 2) 4-9%
 - 3) 5-6%
 - 4) 1-2%
-

Ques # :56

In preheptic jaundice which type of bilirubin is raised

- 1) Direct
 - 2) Conjugated
 - 3) Indirect
 - 4) Bile salt
-

Ques # :57

Clay colored stool is seen in which jaundice

- 1) Prehepatic
 - 2) Hemolytic
 - 3) Posthepatic
 - 4) Hepatic
-

Ques # :58

In hemolyte jaundice, urine shows

- 1) Absence of bile pigments and presence of urobilinogen
 - 2) Absence of bile pigments and urobilinogen
 - 3) Presence of bile pigments and urobilinogen
 - 4) Presence of bile pigments and absence of urobilinogen
-

Ques # :59

In Obstructive jaundice urine shows

- 1) Presence of bile pigments and absence of urobilinogen
 - 2) Presence of bile pigments and urobilinogen
 - 3) Absence of bile pigments and urobilinogen
 - 4) Absence of bile pigments and presence of urobilinogen
-

Ques # :60

Prothrombin is synthesised in

- 1) Liver
 - 2) Kidneys
 - 3) Erythrocytes
 - 4) Spleen
-

Ques # :61

Hematuria can occur in

- 1) Stone in urinary tract
 - 2) Mismatched blood transfusion
 - 3) Ketosis
 - 4) Yellow fever
-

Ques # :62

Standard urea clearance in normal subjects is

- 1) 54 ml/min
- 2) 64 ml/min
- 3) 74 ml/min

4) 104 ml/min

Ques # :63

Sweat chloride are increased in

- 1) Acute pancreatitis
 - 2) Cystic fibrosis
 - 3) Pancreatic cancer
 - 4) Acute glomerulonephritis
-

Ques # :64

Maximum rise in serum amylase occurs in

- 1) Infective hepatitis
 - 2) Acute pancreatitis
 - 3) Pancreatic cancer
 - 4) Acute parotitis
-

Ques # :65

BMR is increased in

- 1) cretinism
 - 2) Hyperthyroidism
 - 3) Endemic goitre
 - 4) Myxoedema
-

Ques # :66

N-acetylglucosamine is present in

- 1) Chondroitin sulphate
 - 2) hyaluronic acid
 - 3) Heparin
 - 4) Inulin
-

Ques # :67

Predominant form of glucose in solution is

- 1) glucofuranose
 - 2) glucopyranose
 - 3) Acyclic form
 - 4) Hydrated acyclic form
-

Ques # :68

Lipid content of chylomicron is about

- 1) 70%
 - 2) 99%
 - 3) 80%
 - 4) 30%
-

Ques # :69

Pyruvate kinase is inhibited by

- 1) Citrate
 - 2) Enolpyruvate
 - 3) Alanine
 - 4) Lactate
-

Ques # :70

Unique by product of glycolysis in erythrocytes is

- 1) Isocitrate
 - 2) 1,3 biphosphoglycerate
 - 3) 2,3 biphosphoglycerate
 - 4) Lactate
-

Ques # :71

Coenzyme of transketolase is

- 1) FAD
 - 2) NAD
 - 3) Thiamine pyrophosphate
 - 4) NADP
-

Ques # :72

Glucose is the only source of energy for

- 1) Kidney
 - 2) Myocardium
 - 3) RBC
 - 4) Spleen
-

Ques # :73

Increased activity of PRAP synthetase can cause

- 1) Diabetes mellitus
 - 2) Immunodeficiency
 - 3) Diabetes insipidus
 - 4) Gout
-

Ques # :74

In myocardia infarction last serum enzyme to return to normal is

- 1) GOT
 - 2) creatine kinase
 - 3) GPT
 - 4) LDH
-

Ques # :75

Niacin contains

- 1) Amide group
 - 2) Carboxyl group
 - 3) Sulfhydryl group
 - 4) Hydroxyl group
-

Ques # :76

NADP is required as a coenzyme in

- 1) Citric acid cycle
 - 2) HMP shunt
 - 3) Gluconeogenesis
 - 4) Glycolysis
-

Ques # :77

Anti-egg white egg injury factor is

- 1) Niacin
 - 2) Biotin
 - 3) Pyridoxin
 - 4) Riboflavin
-

Ques # :78

Human beings cannot synthesise ascorbic acid because they lack

- 1) L-gulonate dehydrogenase
- 2) L-gulonolactone oxidase
- 3) xylylose reductase

4) HMG Co A reductase

Ques # :79

Vitamin which can be synthesised by human being:

- 1) Niacin
 - 2) Riboflavin
 - 3) Thiamin
 - 4) Folic acid
-

Ques # :80

Rhodopsin contains opsin and

- 1) 11-cis-retinal
 - 2) 11-trans-retinol
 - 3) all-cis-retinol
 - 4) all-trans-retinal
-

Ques # :81

Water soluble form of vitamin K is

- 1) Menadione
 - 2) Phylloquinone
 - 3) Menaquinone
 - 4) Tocopherol
-

Ques # :82

Iron is stored in form of

- 1) Ferritin and haemosiderin
 - 2) Ferritin and transferrin
 - 3) Hemoglobin and myoglobin
 - 4) transferrin and Haemosiderin
-

Ques # :83

Copper deficiency can cause :

- 1) Microcytic anaemia
 - 2) Polycythemia
 - 3) Leukocytopenia
 - 4) Thrombocytopenia
-

Ques # :84

Hypogonadism can occur in deficiency of

- 1) Zinc
 - 2) Chromium
 - 3) Copper
 - 4) Magnesium
-

Ques # :85

Trace element having antioxidant function is

- 1) Selenium
 - 2) Chromium
 - 3) Aluminium
 - 4) Cobalt
-

Ques # :86

Acrodermatitis enteropathia can lead to deficiency of :

- 1) Copper
 - 2) Phosphorus
 - 3) Calcium
 - 4) Zinc
-

Ques # :87

Intracellular compartment contains (of the total body water)

- 1) 50%
 - 2) 60%
 - 3) 80%
 - 4) 70%
-

Ques # :88

Highest concentration of proteins is present in

- 1) Interstitial fluid
 - 2) Transcellular fluid
 - 3) Plasma
 - 4) Intracellular Fluid
-

Ques # :89

An amino acid required for porphyrin synthesis is

- 1) Serine
 - 2) Histidine
 - 3) Proline
 - 4) Glycine
-

Ques # :90

In obstructive jaundice , faecal urobilinogon is

- 1) Increased
 - 2) Absent
 - 3) Decreased
 - 4) Normal
-

Ques # :91

Protein content of egg is about

- 1) 10%
 - 2) 15%
 - 3) 13%
 - 4) 25%
-

Ques # :92

Fat content of pulses is about

- 1) 10%
 - 2) 15%
 - 3) 20%
 - 4) 5%
-

Ques # :93

Egg is poor in

- 1) Protein
 - 2) Avidin
 - 3) Carbohydrates
 - 4) Essential amino acid
-

Ques # :94

G-proteins act as

- 1) Signal transducers
- 2) Hormone receptors
- 3) Second messengers

4) Hormone carriers

Ques # :95

Posterior pituitary glands secretes

- 1) Serotonin
 - 2) Oxytocin
 - 3) Catecholamines
 - 4) Follicle stimulating hormone
-

Ques # :96

Nonapeptide among the following is:

- 1) Insulin
 - 2) Antidiuretic hormone
 - 3) ACTH
 - 4) Thyrotropin releasing hormone
-

Ques # :97

ACTH is a polypeptide made up of

- 1) 26 amino acid
 - 2) 64 amino acid
 - 3) 39 amino acid
 - 4) 92 amino acid
-

Ques # :98

In thyroxine , tyrosine residues are iodinated at positions

- 1) 2 & 4
 - 2) 4 & 6
 - 3) 3 & 5
 - 4) 1 & 3
-

Ques # :99

Complement system can be activated by binding of antigen to

- 1) Ig M
 - 2) Ig E
 - 3) Ig G
 - 4) Ig A
-

Ques # :100

The most abundant T cells are

- 1) Helper T cells
- 2) Suppressor T cells
- 3) Cytotoxic T cells
- 4) Memory T cells

[RPSC's Online Exams Objections Portal](#)