

## PROVISIONAL ANSWER KEY

Question Paper Code: 62/2022/OL  
Category Code: 004/2021  
Exam: Assistant Professor in Biochemistry  
Date of Test: 11-08-2022  
Department: Medical Education  
Alphacode: A

Question1:-Which of the following statements is/are correct about RAST?

- (i) It measures IgE antibodies in the serum
- (ii) It is scored from 0 to 6
- (iii) It is the same as the skin prick test

- A:-Only (i)
- B:-Only (i) and (ii)
- C:-Only (ii)
- D:-All of the above (i), (ii) and (iii)

Correct Answer:- Option-B

Question2:-A solution with pH 4 is \_\_\_\_\_ times more acidic than a solution with pH 6

- A:-2
- B:-200
- C:-10
- D:-100

Correct Answer:- Option-D

Question3:-Which of the following drugs is not an enzyme inhibitor?

- A:-Erythromycin
- B:-Pencillin
- C:-siRNA
- D:-Sulfanilamide

Correct Answer:- Option-C

Question4:-Identify the protein that matches with the following descriptions:

- (i) Fibrous protein
- (ii) Composed of three chains
- (iii) Associated with Ehlers-Danlos Syndrome

- A:-Collagen
- B:-Hyaluronic acid
- C:-Elastin
- D:-Keratin

Correct Answer:- Option-A

Question5:-Enzyme activity is measured based on the intensity of emitted light in \_\_\_\_\_ method

- A:-Colorimetry
- B:-Spectrophotometry
- C:-Luminiscence
- D:-Polarimetry

Correct Answer:- Option-C

Question6:-Pick the group of non-polar aminoacids

- A:-Alanine, Leucine, Serine, Threonine
- B:-Alanine, Leucine, Lysine, Histidine
- C:-Alanine, Leucine, Lysine, Arginine
- D:-Alanine, Leucine, Isoleucine, Methionine

Correct Answer:- Option-D

Question7:-Which of the following serves the purpose of locating the radioactive emissions in the process of autoradiography?

- A:-Scintillation counter
- B:-Photographic Emulsion

C:-Geiger Muller Counter

D:-Illumination screen

Correct Answer:- Option-B

Question8:-Which organelle does not contain nucleic acid?

A:-Ribosome

B:-Mitochondria

C:-Golgi Body

D:-Chloroplast

Correct Answer:- Option-C

Question9:-The plasma protein that is involved in copper homeostasis is \_\_\_\_\_

A:-Ceruloplasmin

B:-Albumin

C:-Immunoglobulin

D:-Haptoglobin

Correct Answer:- Option-A

Question10:-Which technique/s can be used for the analysis of nucleic acids?

(i) PAGE

(ii) Northern Blotting

(iii) SDS PAGE

(iv) Southern Blotting

A:-All of the above (i), (ii), (iii) and (iv)

B:-Only (i) and (iii)

C:-Only (i) and (iv)

D:-Only (i), (ii) and (iv)

Correct Answer:- Option-D

Question11:-Identify the class of antibody with the highest avidity for antigens:

A:-IgA

B:-IgM

C:-IgG

D:-IgE

Correct Answer:- Option-B

Question12:-A buffer solution contain 0.36 M sodium acetate ( $\text{CH}_3\text{COONa}$ ) and 0.036 M acetic acid ( $\text{CH}_3\text{COOH}$ ),  $\text{pK}_a=4.8$ . What is the pH of this buffer solution?

A:-0

B:-4.8

C:-5.8

D:-7

Correct Answer:- Option-C

Question13:-Which kind of shift is associated with uv absorption of DNA that is denatured?

A:-Blue shift

B:-Bathochromic shift

C:-Hyperchromic shift

D:-Hypochromic shift

Correct Answer:- Option-C

Question14:-Match the following correctly:

(i) Oxidoreductase

(a) Fumarase

(ii) Hydrolase

(b) Aminoacyl tRNA Synthase

(iii) Lyase

(c) Urease

(iv) Ligase

(d) Catalase

A:-(i)-(b), (ii)-(c), (iii)-(a), (iv)-(d)

B:-(i)-(d), (ii)-(c), (iii)-(a), (iv)-(b)

C:-(i)-(a), (ii)-(c), (iii)-(b), (iv)-(d)

D:-(i)-(a), (ii)-(c), (iii)-(d), (iv)-(b)

Correct Answer:- Option-B

Question15:-The aminoacid that cannot be found in alpha-helix structure of proteins is \_\_\_\_\_

- A:-Proline
- B:-Glycine
- C:-Histidine
- D:-Lysine

Correct Answer:- Option-A

Question16:-Which term represents the number of substrate molecules that can be converted to product by a single enzyme molecule per unit time?

- A:-Specificity
- B:-Catalysis
- C:-Specific activity
- D:-Turnover number

Correct Answer:- Option-D

Question17:-Which of the following is used to bombard the sample in Mass spectrometry?

- A:-Proton
- B:-Neutrons
- C:-Electrons
- D:-Gamma rays

Correct Answer:- Option-C

Question18:-The proteins bound to ion exchange resins can be displaced by altering the \_\_\_\_\_

- A:-Volume of eluent buffer
- B:-Ionic strength of eluent buffer
- C:-Volume of column
- D:-Temperature of eluent buffer

Correct Answer:- Option-B

Question19:-Pick the incorrect statement

- A:-Rhodopsin is an intrinsic protein
- B:-Transmembrane proteins are integral membrane proteins
- C:-Extrinsic proteins are also called peripheral proteins
- D:-NADH dehydrogenase is an extrinsic protein

Correct Answer:- Option-A

Question20:-Which of the following diseases is associated with an elevated value of serum Creatine kinase-3 (CK3)?

- A:-Brain Ischemia
- B:-Kidney Damage
- C:-Alcoholic Cirrhosis
- D:-Muscular Dystrophy

Correct Answer:- Option-D

Question21:-Serum free fatty acids are found in combination with \_\_\_\_\_

- A:-Globin
- B:-Globulin
- C:-Albumin
- D:-Fibrinogen

Correct Answer:- Option-C

Question22:-All N-linked oligosaccharides have \_\_\_\_\_

- A:-Pentasaccharide core
- B:-Monosaccharide core
- C:-Disaccharide core
- D:-Trisaccharide core

Correct Answer:- Option-A

Question23:-Hemoglobin containing two mutant  $\beta$ -globin chain (Hbs $\beta$ ) moves slowly towards anode during electrophoresis is due to the presence of \_\_\_\_\_

- A:-Leucine
- B:-Isoleucine

C:-Valine

D:-Alanine

Correct Answer:- Option-C

Question24:-All the monosaccharides contain one or more chiral carbon atoms except

A:-Dihydroxyacetone

B:-Glyceraldehyde

C:-Glucose

D:-Fructose

Correct Answer:- Option-A

Question25:-Lipids have \_\_\_ specific gravities than water

A:-More

B:-Less

C:-Zero

D:-Equal

Correct Answer:- Option-B

Question26:-Chemical name of Guanine is

A:-2-amino, 6-oxypurine

B:-2-amino, 5-oxypurine

C:-2-amino, 7-oxypurine

D:-3-amino, 6-oxypurine

Correct Answer:- Option-A

Question27:-Number of base pairs per one complete turn of DNA double helix are:

A:-12

B:-10

C:-11

D:-09

Correct Answer:- Option-B

Question28:-A drug \_\_\_ inhibits protein synthesis in both prokaryotes and eukaryotes

A:-Chloramphenicol

B:-Cycloheximide

C:-Puromycin

D:-Tetracycline

Correct Answer:- Option-C

Question29:-Prokaryotic transcription start regions are called as

A:-Enhancers

B:-Operators

C:-Promoters

D:-Inducers

Correct Answer:- Option-C

Question30:-Pribnow-Schaller box has a sequence of \_\_\_\_\_

A:-TATAAT

B:-ATTATA

C:-TAAATT

D:-ATTTAA

Correct Answer:- Option-A

Question31:-The Hypothesis is used to make \_\_\_\_

A:-A point

B:-Predictions

C:-Test

D:-Conclusion

Correct Answer:- Option-B

Question32:-Non-probability is also known as \_\_\_\_\_

- A:-Simple random sampling
- B:-Systematic sampling
- C:-Stratified sampling
- D:-Deliberate sampling

Correct Answer:- Option-D

Question33:-Precision is the closeness of a \_\_\_\_\_

- A:-repeated measurements
- B:-reported measurements
- C:-accurate measurements
- D:-Largest measurements

Correct Answer:- Option-A

Question34:-The expression of probability density function whose values range from zero to positive infinity is \_\_\_\_\_

- A:-Chi-square distribution
- B:-Poisson distribution
- C:-Binomial distribution
- D:-Frequency distribution

Correct Answer:- Option-A

Question35:- $\chi^2$  with n-1 degrees of freedom equivalent to \_\_\_\_\_

A:- $(n-1)\frac{s^2}{\sigma^2}$

B:- $(n-1)\frac{s^2}{\sigma^3}$

C:- $(n-1)\frac{s^2}{\sigma^1}$

D:- $(n-1)\frac{s^4}{\sigma^2}$

Correct Answer:- Option-A

Question36:-Coefficient of variation is the measure of ratio of \_\_\_\_\_ stated as a percentage

- A:-mean to the standard deviation
- B:-standard deviation to the median
- C:-median to the standard deviation
- D:-standard deviation to the mean

Correct Answer:- Option-D

Question37:-The term "biological reference interval" that deemed normal for a healthy person approved by \_\_\_\_\_

- A:-ISO 15188
- B:-ISO 15189
- C:-ISO 15187
- D:-ISO 15289

Correct Answer:- Option-B

Question38:-Reference value of serum creatinine in adult male would be \_\_\_\_\_

- A:-0.9-1.2 mg/dL
- B:-0.6-0.9 mg/dL
- C:-1.2-1.5 mg/dL
- D:-0.7-1.0 mg/dL

Correct Answer:- Option-A

Question39:-F test result is obtained by calculating the \_\_\_\_\_

- A:-Between treatment square dividend by residual mean square
- B:-Residual mean square divided by Between treatment mean square
- C:-Between treatment square divided by residual square

D:-Between treatment mean square divided by residual mean square

Correct Answer:- Option-D

Question40:-The nonparametric method used to compare a single sample with some hypothesized value is \_\_\_\_\_

A:-Mean

B:-Standard deviation

C:-Variance

D:-A sign test

Correct Answer:- Option-D

Question41:-Which of the following statements regarding Basal Metabolic Rate is incorrect?

A:-It is the minimum amount of energy required to sustain vital functions during physical rest

B:-It is the minimum amount of energy required to sustain vital functions during mental rest

C:-It is the minimum amount of energy required to sustain vital functions during sleep

D:-Basal Metabolic rate is lower than Resting Metabolic Rate

Correct Answer:- Option-C

Question42:-Which of the following is an appetite suppressant?

A:-Neuropeptide Y

B:-Serotonin

C:-Ghrelin

D:-Melanin

Correct Answer:- Option-B

Question43:-Select the false statement regarding Carcino Embryonic Antigen

A:-Its plasma level increases with smoking

B:-Useful for diagnosing localized breast cancer

C:-Is elevated in 70% of colorectal cancer

D:-Helpful in diagnosing non-small cell lung carcinoma

Correct Answer:- Option-B

Question44:-Which of the following is an oncosuppressor gene?

A:-c-fos

B:-bcl 2

C:-Ras

D:-p21

Correct Answer:- Option-A

Question45:-Which of the following vitamin do not have specific role in bone formation?

A:-Pyridoxal phosphate

B:-Vitamin K

C:-Vitamin D

D:-Vitamin C

Correct Answer:- Option-A

Question46:-All the following are anti-vitamins except

A:-Linetin

B:-Tyramine

C:-Citral

D:-Avidin

Correct Answer:- Option-B

Question47:-The toxin responsible for Epidemic dropsy is

A:-Vicin

B:-Thio-oxazolidone

C:-Beta oxaly amino alanine

D:-Sanguinarine

Correct Answer:- Option-D

Question48:-Which mineral deficiency is characterized by both hematological and neurological manifestations?

- A:-Zinc
- B:-Copper
- C:-Selenium
- D:-Molybdenum

Correct Answer:- Option-B

Question49:-Tetany is seen in

- A:-Vitamin D deficiency
- B:-Hypoalbuminemia
- C:-Metabolic alkalosis
- D:-None of the above

Correct Answer:- Option-C

Question50:-Which of the following enzyme do NOT require biotin for its action?

- A:-Aminoimidazole ribonucleotide carboxylase
- B:-Pyruvate carboxylase
- C:-Acetyl CoA carboxylase
- D:-Propionyl CoA carboxylase

Correct Answer:- Option-A

Question51:-Select the technique that is used for studying gene expression in a tissue

- A:-Multiplex PCR
- B:-DNA finger printing
- C:-Microarray technique
- D:-Southern blot technique

Correct Answer:- Option-C

Question52:-Which of the following statement is false regarding innate immunity?

- A:-First line of defense against infection
- B:-Lymphocytes play a major role
- C:-Is less specific
- D:-Innate immune responses are uniform in all members of a species

Correct Answer:- Option-B

Question53:-The autoimmune disease where tissue destruction is mediated directly by T cells is

- A:-Rheumatoid arthritis
- B:-Hashimoto's thyroiditis
- C:-Autoimmune hemolytic anemia
- D:-Goodpasture's syndrome

Correct Answer:- Option-A

Question54:-Maternal serum Alpha fetoprotein level is decreased in

- A:-Anencephaly
- B:-Down syndrome
- C:-Cystic hygroma
- D:-Meckel syndrome

Correct Answer:- Option-B

Question55:-Which of the following is an RNA directed site specific nuclease?

- A:-CRISPER-Cas9
- B:-CRE recombinase
- C:-S1 nuclease
- D:-Flp recombinase

Correct Answer:- Option-A

Question56:-Which of the following is a sulfur containing vitamin?

- A:-Thiamine

B:-Riboflavin

C:-Pantothenic acid

D:-Folic acid

Correct Answer:- Option-A

Question57:-All the following features are true regarding kwashiorkor EXCEPT

A:-Age of onset is 1-5 years

B:-Serum albumin is less than 2gm/dL

C:-Dry and atrophic skin

D:-Serum cortisol is increased

Correct Answer:- Option-D

Question58:-Which of the following vector carries the risk of insertional mutagenesis when used in gene therapy?

A:-Retroviruses

B:-Adenoviruses

C:-Plasmids

D:-Herpes simplex viruses

Correct Answer:- Option-A

Question59:-Simultaneous analysis of multiple metabolites in the same blood spot is referred to as

A:-Second-Tier testing

B:-Multiplex analysis

C:-Tandem Mass spectrometry

D:-Newborn screening

Correct Answer:- Option-B

Question60:-The test that is done to assess vitamin B12 absorption is

A:-Serum methylmalonic acid assay

B:-Plasma homocysteine assay

C:-Schilling test

D:-Deoxyuridine suppression test

Correct Answer:- Option-C

Question61:-Aspirin is used in the treatment of myocardial infarction since it inhibits platelet aggregation by inhibiting the synthesis of

A:-Prostacyclin

B:-Thromboxane

C:-Leukotriene

D:-Prostaglandin E

Correct Answer:- Option-B

Question62:-Refsum disease characterized by vision loss, anosmia ataxia and polyneuropathy is due to defect in

A:-Fatty acid oxidation

B:-Fatty acid synthesis

C:-Glycogenolysis

D:-Glycogenesis

Correct Answer:- Option-A

Question63:-The assay of 5 Hydroxy indole acetic acid in urine is useful in the diagnosis of

A:-Pheochromocytoma

B:-Von Gierke's disease

C:-Carcinoid syndrome

D:-Acute intermittent porphyria

Correct Answer:- Option-C

Question64:-Pellagra like symptoms is commonly seen in disorders associated with the defect in the metabolism of

A:-Arginine

B:-Glycine

C:-Cysteine



D:-Tryptophan

Correct Answer:- Option-D

Question65:-The rate limiting enzymes of gluconeogenesis are

- (i) Pyruvate carboxylase
- (ii) Pyruvate dehydrogenase
- (iii) Glucose-6-phosphatase
- (iv) Phosphofructokinase

A:-(i) and (ii)

B:-(ii) and (iv)

C:-(i) and (iii)

D:-(ii) and (iii)

Correct Answer:- Option-C

Question66:-The type of porphyria associated with the defect in the enzyme uroporphyrinogen decarboxylase is

A:-Porphyria cutanea tarda

B:-Congenital erythropoietic porphyria

C:-Erythropoietic protoporphyria

D:-Acute intermittent porphyria

Correct Answer:- Option-A

Question67:-Ochronosis, a condition where black pigments are deposited in cartilage is due to deficiency of the enzyme

A:-Tyrosinase

B:-Homogentisic acid oxidase

C:-Fumarylacetoacetate hydrolase

D:-Methyl malonyl CoA mutase

Correct Answer:- Option-B

Question68:-All of the following are types of type II detoxification reactions except

A:-Oxidation

B:-Conjugation

C:-Acetylation

D:-Sulfation

Correct Answer:- Option-A

Question69:-Which of the following is not a diagnostic-criteria for a metabolic syndrome?

A:-Fasting glucose- more than 100 mg/dl

B:-Triglyceride - more than 150 mg/dl

C:-HDL-cholesterol - more than 50 mg/dl

D:-Blood pressure - more than 130/85 mm Hg

Correct Answer:- Option-C

Question70:-The liver function test parameters for a patient admitted with jaundice is as follows serum total bilirubin - 10 mg/dl, Direct bilirubin - 9.5 mg/dl. Urine: Bile salts and bile pigments - positive which of the following enzymes is increased in this patient?

A:-Amylase

B:-Alkaline phosphatase

C:-Lactate dehydrogenase

D:-Creatine kinase

Correct Answer:- Option-B

Question71:-Urea reduction ration is used to

A:-Assess the adequacy of hemodialysis

B:-Diagnosis of nephrotic syndrome

C:-Analyze the toxicity of nephrotoxic drugs

D:-Classify different stages of renal failure

Correct Answer:- Option-A

Question72:-The lab data of a patient's serum sample were as follows: Total Cholesterol: 300 mg/dL, HDL cholesterol: 40 mg/dl and Triglycerides : 200 mg/dL The calculated LDL cholesterol level for the patient is

A:-100 mg/dL

B:-60 mg/dL

C:-220 mg/dL

D:-40 mg/dL

Correct Answer:- Option-C

Question73:-All of the following enzymes are involved in substrate level phosphorylation except

A:-Pyruvate kinase

B:-Phosphoglycerate kinase

C:-Succinate thiokinase

D:-Phosphoenolpyruvate carboxykinase

Correct Answer:- Option-D

Question74:-Regan isoenzymes is increased in

A:-Carcinoma of lung

B:-Chronic myeloid leukemia

C:-Metastatic carcinoma of prostate

D:-Choriocarcinoma

Correct Answer:- Option-A

Question75:-Ezetimibe reduces blood cholesterol levels by

A:-Inhibiting HMG-CoA reductase

B:-Inhibiting absorption

C:-Activating lipoprotein lipase

D:-Inhibiting lipolysis

Correct Answer:- Option-B

Question76:-Fatty liver can be prevented by

A:-Methionine

B:-Aspartate

C:-Arginine

D:-Lysine

Correct Answer:- Option-A

Question77:-Which of the following statement is NOT TRUE about Levey-Jennings chart?

A:-QC sample should be analyzed for 20 days

B:-Mean and standard deviation are needed to plot the chart

C:-Patient results can be reported when a single control value exceeds the QC limit

D:-12s rule has been widely used by the laboratories

Correct Answer:- Option-C

Question78:-All of the following are types of preanalytical variables except

A:-Patient identification

B:-Transcription errors

C:-Specimen collection

D:-Water quality

Correct Answer:- Option-D

Question79:-Triple test, commonly used in maternal screening in second trimester include all of the following markers except

A:-Human chorionic gonadotrophin

B:-Unconjugated Estriol

C:-Progesterone

D:-Alpha fetoprotein

Correct Answer:- Option-C

Question80:-Flipped pattern of Lactate dehydrogenase isoenzyme is seen in

A:-Myocardial infarction

B:-Renal failure

C:-Hepatitis

D:-Addison disease

Correct Answer:- Option-A

Question81:-For Covid 19 RT-PCR test mineral used in RTPCR process

- A:-Mn
- B:-Mg
- C:-Zn
- D:-Cr

Correct Answer:- Option-B

Question82:-The VLDL, LD: levels increase in blood due to high intake of

- A:-Glucose diet
- B:-Fructose diet
- C:-lactose diet
- D:-Starch diet

Correct Answer:- Option-B

Question83:-The elementary composition of the human body (dry weight basis) in %

- A:-C 50%, O 20%, H 10%, N 8.5%
- B:-C 40%, O 30%, H 8%, N 7%
- C:-C 50%, O 10%, H 20%, N 6%
- D:-C 50%, O 10%, H 20%, N 12%

Correct Answer:- Option-A

Question84:-Normal chemical composition for a man weighting 65 kg

- A:-Protein 17% Fat 13% Carbon 1.5% Water 61.6% Minerals 6.1%
- B:-Protein 15% Fat 10% Carbon 2.5% Water 70% Minerals 7%
- C:-Protein 12% Fat 15% Carbon 1.5% Water 6.6% Minerals 6.1%
- D:-None

Correct Answer:- Option-A

Question85:-A 54-year male presents with acute abdominal pain, no skin photosensitization, large amount of aminolevulinic acid (ALA) and porphobilinogen (PBG) in urine, and symptoms exacerbated by steroids and several other drugs. Which of the following best describes the conditions?

- A:-Porphyria cutanea tarda
- B:-Acute intermittent porphyria
- C:-Porphyria variegata
- D:-Hepatic porphyria

Correct Answer:- Option-B

Question86:-A 10-year old boy develops sever diarrhoea while travelling to India. the laboratory blood investigation shows arterial blood pH 7.25; partial pressure of carbon dioxide 24 mm Hg; bicarbonate 10 mEq/L and normal anion gap. Which of the following is correct diagnosis?

- A:-Metabolic acidosis
- B:-Metabolic alkalosis
- C:-Respiratory acidosis
- D:-Respiratory alkalosis

Correct Answer:- Option-A

Question87:-A 40-year old woman presented with history of fatigue, easy bruising, bleeding from gums while brushing her teeth and a diffuse rash involving her extremities and trunk that had been present for several days. The deficiency of which of the following is because of her symptoms?

- A:-Niacin
- B:-Pyridoxine
- C:-Pantothenic Acid
- D:-Ascorbic acid

Correct Answer:- Option-D

Question88:-A 29-year old man comes to his doctor with symptoms of HIV infection. The doctor orders several confirmatory tests, for one of them a protein sample is taken and is run on electrophoretic gel, causing it to separate by size and charge. The protein was then transferred to a membrane, and labelled antibody is added to allow visualization of this protein. Which of the following tests is described here?

- A:-Southern blot
- B:-Western blot
- C:-Northern blot

D:-South western blot

Correct Answer:- Option-B

Question89:-In cancer patients who have been continuously receiving methotrexate, the target cells of tumor with time become sensitive to his drug. In this case, most commonly gene amplification of the following enzyme is observed:

A:-Dihydrofolate reductase

B:-Thiaminase

C:-Deaminase

D:-Thioredoxin reductase

Correct Answer:- Option-A

Question90:-A doctor administered allopurinol to a 26-year old young man with symptoms of gout. Which of the following pharmacological action of allopurinol ensures therapeutic effect?

A:-Inhibiting uric acid synthesis

B:-Increasing uric acid excretion

C:-Inhibiting leucocyte migration in the joints

D:-General anti-inflammatory effect

Correct Answer:- Option-A

Question91:-A 56-year old man was operated on prostate cancer, three months later he underwent a course of radiotherapy and chemotherapy. The complex of medicinal preparations prescribed to the patient included 5-fluoro-deoxyuridine, which is a thymidylate synthase inhibitor, Which of the following biomolecule's synthesis is blocked by the drug?

A:-DNA

B:-mRNA

C:-rRNA

D:-tRNA

Correct Answer:- Option-A

Question92:-A patient with radiation therapy because of brain tumor was prescribed vitamin E and a micro element with antioxidant function. Which of the following can be used for this purpose?

A:-Fluorine

B:-Selenium

C:-Iron

D:-Iodine

Correct Answer:- Option-B

Question93:-A 3-year old child comes to the hospital with history of biting his lips and fingers, involuntary movements of upper limb and mental retardation. he has a younger healthy sister. Lab investigations showed high serum uric acid. Which of the following is the most likely diagnosis?

A:-Adenine deaminase

B:-LeschNyhah Syndrome

C:-Orotic aciduria

D:-Fragile X syndrome

Correct Answer:- Option-B

Question94:-A 7-year boy comes to the hospital with yellow discoloration of eyes, decreased appetite and general malaise for last 1 week. She has been passing dark colored urine and high colored faeces for the same duration. Lab investigations showed serum total bilirubin 4.5 mg%, direct bilirubin 1.2 mg%, indirect faeces 3.3 mg%. liver enzymes are normal. Which of the following is the most likely cause of jaundiced in this patient?

A:-Obtrusive jaundice

B:-Physiological jaundice

C:-Hepatic jaundice

D:-Hemolytic jaundice

Correct Answer:- Option-D

Question95:-A 20-year old male visits dermatology OPD with complaints of increased sensitivity to sunlight causing blistering and crusting of skin only few minutes of sun exposure. Delayed growth and intellectual disability were noticed. Skin biopsy was taken. Which of the following is the most likely diagnosis?

A:-Xeroderma pigmentosum

B:-Pellagra

C:-Vitamin A deficiency

D:-Zinc deficiency

Correct Answer:- Option-A

Question96:-a 20-year old male patient presented with severe abdominal pain with difficulty in fine motor tasks. Lab investigation showed elevated liver enzymes and increased urinary calcium and phosphate Ophthalmological examination revealed Kayser Fleischer ring in the cornea. Which of the following is most likely cause of the presenting symptoms in this case?

- A:-Iron deficiency
- B:-Copper excess
- C:-Selenium deficiency
- D:-Zinc excess

Correct Answer:- Option-B

Question97:-A patient is undergoing radiation therapy because of breast cancer. This resulted in increased lipid peroxidation processes. In the course of which active forms of oxygen including superoxide anion radical are formed in the human body. Which of the following enzymes inactivates this anion?

- A:-Superoxide dismutase
- B:-Glutathione reductase
- C:-Peroxidase
- D:-Catalase

Correct Answer:- Option-A

Question98:-The Anfinsen's dogma states that

- A:-Secondary structure directs in vivo folding
- B:-Primary structure directs in vivo folding
- C:-Tertiary structure directs in vivo folding
- D:-Quaternary structure directs in vivo folding

Correct Answer:- Option-B

Question99:-The maximum buffering capacity occurs at

- A:- $\pm 1$  pH unit on either side of pKa
- B:- $\pm 2$  pH unit of the other side of pKa
- C:-Neutral pH
- D:-None of the above

Correct Answer:- Option-A

Question100:-The defective DNA base excision repair (BER) is found in

- A:-Xeroderma pigmentosm
- B:-Bloom syndrome
- C:-Mutyh-associated polyposis (MAP)
- D:-Hereditary nonpolyposis colorectal cancer (HNPCC)

Correct Answer:- Option-C