

FINAL ANSWER KEY

Question Paper Code: 95/2022/OL
Category Code: 644/2021
Exam: Assistant Professor in Physiology
Date of Test: 02-12-2022
Department: Medical Education
Alphacode: A

Question1:-Pulse rate in atrial fibrillation is

- A:-120-180/min
- B:-180-240/min
- C:-240-320/min
- D:-320-400/min

Correct Answer:- Option-A

Question2:-The percentage of blood that is present in capillaries is

- A:-5%
- B:-10%
- C:-15%
- D:-20%

Correct Answer:- Option-A

Question3:-Angiotensinogen is produced by

- A:-Liver
- B:-Kidney
- C:-Hypothalamus
- D:-Atrium

Correct Answer:- Option-A

Question4:-The most sensitive index of myocardial infarction is a rise in the plasma level of this enzyme

- A:-Tissue creatine kinase
- B:-Creatine kinase MM
- C:-Creatine kinase MB
- D:-Creatine kinase BB

Correct Answer:- Option-C

Question5:-y descend in JVP is due to

- A:-Atrial diastole
- B:-Closure of the tricuspid valve
- C:-Opening of tricuspid valve
- D:-Isovolumetric relaxation of right ventricle

Correct Answer:- Option-C

Question6:-All of the following occur when the blood flows through the capillaries except

- A:-Increase in haematocrit
- B:- HbO_2 dissociation curve shifts to the left
- C:-decreased protein content
- D:-Decrease in PH

Correct Answer:- Option-B

Question7:-The vasodilation produced by CO_2 is maximum in

- A:-Kidney
- B:-Brain
- C:-Liver
- D:-Heart

Correct Answer:- Option-B

Question8:-Compensatory cardiovascular adjustment during prolonged standing is due to

- A:-Operation of baroreceptor mechanism
- B:-Decrease in the activity of renin angiotensin mechanism
- C:-Arteriolar dilation
- D:-Initiation of cerebral ischaemic response

Correct Answer:- Option-A

Question9:-Myocardial oxygen demand is

- A:-Inversely proportional to heart rate
- B:-Directly proportional to heart rate
- C:-Increased by digitalis
- D:-Not related to heartrate

Correct Answer:- Option-B

Question10:-The reflex that helps in maintain cerebral blood flow constant despite the increase in ICP.

- A:-Cushings reflex
- B:-Bainbridge reflex
- C:-Bezold jarish reflex
- D:-Axon reflex

Correct Answer:- Option-A

Question11:-Serum differs from plasma

- A:-by being formed as a result of antigen antibody reactions
- B:-in lacking fibrinogen
- C:-by lacking serotonin, growth factor etc
- D:-in maintaining colloid osmotic pressure of blood

Correct Answer:- Option-B

Question12:-The last and final stage of formation of erythrocytes

- A:-Reticulocyte
- B:-Late normoblast
- C:-Erythroblast
- D:-Pronormoblast

Correct Answer:- Option-A

Question13:-Philadelphia chromosome is seen in the following disease

- A:-Acute myeloid leukemia
- B:-Polycythemia rubravera
- C:-Chronic myeloid leukemia
- D:-Reticulocytosis

Correct Answer:- Option-C

Question14:-The type of antibodies formed first after exposure to antigen

- A:-IgD
- B:-IgM
- C:-IgG
- D:-IgA

Correct Answer:- Option-B

Question15:-Treatment of toxic levels of methemoglobin

- A:-methylene blue
- B:-breathing pure oxygen
- C:-blood transfusion
- D:-NADH-dependant methemoglobin reductase

Correct Answer:- Option-A

Question16:-The presence of antibodies already bound to red blood cells as in haemolytic disease of newborn or autoimmune acquired haemolytic anemia is detected by

- A:-Direct coombs test

B:-Indirect Coomb's test

C:-Major cross matching

D:-Eliza

Correct Answer:- Option-A

Question17:-The cause of increased affinity of HB for oxygen as preservation injury in blood collected in ACD or CPD is

A:-Decrease in 2, 3 biphospho D-Glyceric acid

B:-Increase in ATP level of donar cells

C:-A rapid decrease in donor RBC sodium concentration

D:-A slow increase in donor RBC potassium ion concentration

Correct Answer:- Option-A

Question18:-The plasma level of following substances falls more rapidly during storage

A:-Albumin

B:-Fibrinogen

C:-Potassium

D:-Gamma globulin

Correct Answer:- Option-B

Question19:-Exchange transfusion is useful in the treatment of

A:-Hemolytic disease of Newborn

B:-Infant respiratory distress syndrome

C:-Hypovolumic shock

D:-Haemophilia

Correct Answer:- Option-A

Question20:-Which statement is true about von. Willbrand's disease?

A:-It is an autosomal recessive disorder affecting formation of hemostatic plugs

B:-The patient has a mild bleeding disorder with prolonged bleeding time, and concordant reduction in plasma levels of von Willebrand's factor antigen

C:-In von-Willebrand's disease factor VIII is also deficient

D:-The platelet aggregation is affected in von-Willebrand's disease which is responsible for the increased bleeding time

Correct Answer:-**Question Cancelled**

Question21:-All the heterotrimeric G protein-coupled receptors that have been characterized to date are proteins that span the cell membrane 7 times and are called

A:-Nuclear receptors

B:-Serpentine receptors

C:-Orphan receptors

D:-Thermoreceptors

Correct Answer:- Option-B

Question22:-Nernst potential of sodium is

A:-89mv

B:-96 mv

C:-+61 mv

D:-45mv

Correct Answer:- Option-C

Question23:-Gap junctions are present in

A:-Choroid plexus

B:-Skin

C:-Renal tubular epithelium

D:-Smooth muscle

Correct Answer:- Option-D

Question24:-Smallest filamentous structure that form cytoskeleton of cell

A:-Desmosomes

B:-Kinines

C:-Microfilaments

D:-Keratines

Correct Answer:- Option-C

Question25:-The mechanism of action of Colchicine is by

A:-Genomic action by which P53 protein is produced

B:-Producing Fas which is present in NK cells and T Lymphocytes

C:-By destroying mitotic spindle and arresting mitosis

D:-By producing caspases which are activated by cytochrome C

Correct Answer:- Option-C

Question26:-Accessory muscle of inspiration

A:-Diaphragm

B:-Sternocleidomastoid

C:-External intercostal muscle

D:-Internal intercostal muscle

Correct Answer:- Option-B

Question27:-Functional residual capacity is the sum of

A:-Residual volume and Expiratory reserve volume

B:-Tidal volume and Expiratory reserve volume

C:-Tidal volume inspiratory reserve volume

D:-Expiratory reserve volume and Inspiratory reserve volume

Correct Answer:- Option-A

Question28:-Contraction of External intercostal muscles causes ribs to move

A:-Forwards and downwards

B:-Backwards and downwards

C:-Forwards and upwards

D:-Backwards and upwards

Correct Answer:- Option-C

Question29:-Shift to right of O_2 dissociation curve is caused by

A:-Decrease in temperature

B:-Increase in pH

C:-Increase in pCO_2

D:-Decrease in 2,3 BPG

Correct Answer:- Option-C

Question30:-Which of the following statement is/are correct about Surfactant?

- I. Secreted by type 1 alveolar cells
- II. Maintains alveolar stability
- III. Deficiency in infants causes infant respiratory distress syndrome

A:-Only I and II

B:-Only II and III

C:-Only I and III

D:-All of the above

Correct Answer:- Option-B

Question31:-Respiratory acidosis is compensated by the kidneys by

A:-Increased H^+ ion secretion

B:-Decreased reabsorption of HCO_3^-

C:-Increased reabsorption of H^+

D:-All of the above

Correct Answer:- Option-A

Question32:-Anion gap refers to the difference between

A:-Cations and anions

B:-Cations other than Na^+ and anions

C:-Cations and anions other than Cl^- and HCO_3^-

D:-Cations other than Na^+ and anions other than Cl^- and HCO_3^-

Correct Answer:- Option-D

Question33:-Which of the following statement is true about 'Histotoxic Hypoxia'?

A:- O_2 carrying capacity of blood is reduced

B:- PO_2 of arterial blood is decreased

C:-A - V pO_2 difference is low

D:-Percentage saturation of Hb is decreased

Correct Answer:- Option-C

Question34:-Inspiratory "Ramp" Signal is produced by

A:-Dorsal respiratory group of neurons

B:-Ventral respiratory group of neurons

C:-Apneustic centre

D:-Pneumotaxic centre

Correct Answer:- Option-A

Question35:-Symptoms of Caisson Disease are due to

A:-Blockage of blood vessels by CO_2

B:-Blockage of blood vessels by O_2

C:-Blockage of blood vessels by CO

D:-Blockage of blood vessels by N_2

Correct Answer:- Option-D

Question36:-Oxyntic cells in the stomach secrete

A:-Pepsinogen

B:-Mucous

C:-Histamine

D:-Hydrochloric acid

Correct Answer:- Option-D

Question37:-Secretin acts on the pancreatic ducts to cause the secretion of pancreatic juice

A:-Rich in HCO_3^- concentration

B:-Rich in Cl^- concentration

C:-Poor in HCO_3^- concentration

D:-Rich in enzymes

Correct Answer:- Option-A

Question38:-The two primary bile acids formed in the liver are

A:-Deoxycholic acid and lithocholic acid

B:-Cholic acid and chenodeoxycholic acid

C:-Cholic acid and lithocholic acid

D:-Deoxycholic acid and chenodeoxycholic acid

Correct Answer:- Option-B

Question39:- Cl^- enters enterocytes from the interstitial fluid via

A:- $Na^+ - K^+ - 2Cl^-$ cotransporters

B:- $Na^+ - Cl^-$ cotransporters

C:- $Na^+ - Cl^-$ exchanger

D:- Cl^- transporters

Correct Answer:- Option-A

Question40:-All are actions of Cholecystokinin except

A:-Contraction of the gall bladder

- B:-Relaxation of sphincter of Oddi
 - C:-Relaxation of pyloric sphincter
 - D:-Stimulation of pancreatic secretion rich in enzymes
- Correct Answer:- Option-C

Question41:-Steatorrhea is caused by all except

- A:-Deficiency of pancreatic lipase
 - B:-Lack of alkaline secretion from the pancreas
 - C:-Defective reabsorption of bile salts in the distal ileum
 - D:-Hyposecretion of gastric acid
- Correct Answer:- Option-D

Question42:-All are true about short chain fatty acids except

- A:-Make a significant contribution to the total caloric intake
 - B:-They exert a trophic effect on the colonic epithelial cells
 - C:-They are formed by the action of colonic bacteria on lipids
 - D:-They combat inflammation
- Correct Answer:- Option-C

Question43:-All are true about migrating motor complex except

- A:-Starts with a quiescent period
 - B:-Ends with a burst of regular electrical and motor activity
 - C:-Initiated by motilin
 - D:-Gastric secretion, bile flow, and pancreatic secretion decrease during MMC
- Correct Answer:- Option-D

Question44:-Hartnup disease is caused due to congenital defect in the mechanism of transport of

- A:-Neutral amino acids in the intestine and renal tubules
 - B:- Na^+ in the intestine and renal tubules
 - C:-Glucose in the intestine and renal tubules
 - D:-Fatty acids in the intestine
- Correct Answer:- Option-A

Question45:-All are true regarding iron absorption except

- A:-Transport of Fe^{2+} into the enterocytes occurs via divalent metal transporter 1
 - B:-Absorption occurs in the jejunum
 - C:-Transported out of the enterocytes by a basolateral transporter named ferroportin 1
 - D:-Hephaestin (Hp) facilitates basolateral transport of Fe^{2+}
- Correct Answer:- Option-B

Question46:-GFR is increased when

- A:-Hydrostatic pressure in the glomerular capillaries increases
 - B:-Hydrostatic pressure in glomerular capillaries decreases
 - C:-Oncotic pressure of the plasma in the glomerular capillaries increases
 - D:-Oncotic pressure of the plasma in the Bowman's space decreases
- Correct Answer:- Option-A

Question47:-Loss of function mutation of paracellin 1 gene leads to

- A:- Na^+ loss in the urine
 - B:- K^+ loss in the urine
 - C:- Cl^- loss in the urine
 - D:- Mg^{2+} and Ca^{2+} loss in the urine
- Correct Answer:- Option-D

Question48:- Na^+ is reabsorbed in proximal tubule via

- A:-Na-K-2Cl cotransporter

- B:-Na-H exchanger
 - C:-Na-Cl cotransporter
 - D:-Via the ENaC channels
- Correct Answer:- Option-B

Question49:-Bartter's syndrome is characterized by

- A:-Hypervolemia
- B:-Hypokalemia
- C:-Alkalosis
- D:-Hypertension

Correct Answer:-Question Cancelled

Question50:-Which of the following statement(s) is/are correct about the operation of loop of Henle as a countercurrent multiplier?

- I. High permeability of the thin descending limb to solutes
- II. Active transport of Na^+ and Cl^- out of the thick ascending limb
- III. Inflow of tubular fluid from the proximal tubule with outflow into the distal tubule

- A:-I and II
- B:-I and III
- C:-II and III
- D:-All of the above

Correct Answer:- Option-C

Question51:-Which of the following statement(s) is/are correct about the factors affecting Na^+ reabsorption?

- I. Circulating levels of aldosterone
- II. Circulating level of ADH
- III. Rate of tubular secretion of H^+ and K^+

- A:-I and II
- B:-I and III
- C:-II and III
- D:-All of the above

Correct Answer:- Option-B

Question52:-Diuretic Furosemide acts by

- A:-Inhibiting the Na-K-2Cl cotransporter in the thick ascending limb of the loop of Henle
- B:-Inhibiting $Na^+ - K^+$ exchange in the collecting duct
- C:-Inhibiting the ENaCs in the collecting duct
- D:-Inhibiting Na-Cl cotransporter in the early portion of the distal tubule

Correct Answer:- Option-A

Question53:-Volume of urine in the bladder that normally initiates reflex contraction is

- A:-50-100 ml
- B:-100-200 ml
- C:-200-300 ml
- D:-300-400 ml

Correct Answer:- Option-B

Question54:-Main source of heat loss from the body is by

- A:-Vaporization of sweat
- B:-Radiation and conduction
- C:-Urination and defecation
- D:-Respiration

Correct Answer:- Option-B

Question55:-Substance used to measure GFR should be

- A:-Easily filtered by the tubules
- B:-Easily reabsorbed by the tubules
- C:-Easily secreted by the tubules
- D:-Metabolized by the body

Correct Answer:- Option-A

Question56:-Which of the following statement is/are correct regarding regenerative changes in an axon?

- (i) Schwann cell on either side of injured site multiply by mitosis to form a growth cone
- (ii) Neurofibrils starts growing from tip of the proximal stem called sprouting
- (iii) Out of many Neurofibrils only one will find the way through the regeneration tube and reaches the target structure.

A:-Only (i and iii)

B:-Only (i and ii)

C:-Only (ii and iii)

D:-All the above (i, ii and iii)

Correct Answer:- Option-C

Question57:-Following are true about Gap Junctions except

- (i) Provide low resistant bridge for rapid spread of excitation
- (ii) Present in cardiac muscle
- (iii) Responsible for plasticity of smooth muscle
- (iv) They are electrical synapses

A:-Only (ii)

B:-Only (iii)

C:-Only (i and iii)

D:-Only (iv)

Correct Answer:- Option-B

Question58:-A business man after a cocktail party falls into a deep sleep with his right arm under his head. Very next morning when he was awoken, he is unable to move his right arm. But it tingles and pain sensation is intact on the right arm. What is the reason for the loss of motor function of his right arm?

A:-Sensory nerve fibers are located deep inside and are least affected by pressure

B:-B-fibers are more sensitive to pressure than A-fibers

C:-A-fibers are more sensitive to pressure than C-fibers

D:-A- fibers are more susceptible to hypoxia than B-fibers

Correct Answer:- Option-C

Question59:-A statement which is false regarding action potential is

- (i) In mammalian heart depolarization last about 2ms
- (ii) The slow return of K^+ channel to the closed state contribute to the after hyperpolarization
- (iii) Voltage gated K^+ channels bring the action potential to an end cause closure of their gate through a positive feed back

A:-Only (iii)

B:-Only (ii)

C:-Only(i)

D:-None of the above

Correct Answer:- Option-A

Question60:-Which of the following statement is/are correct about Channel Myopathies?

- (i) Hyperkalemic periodic paralysis is associated with mutation in Na^+ channel
- (ii) Malignant hyperthermia can respond to general anaesthetic like Halothane
- (iii) Paramyotonia congenita is associated with mutation in Na^+ channel

A:-Only (ii and iii)

B:-Only (iii)

C:-Only (ii)

D:-All the above (i, ii and iii)

Correct Answer:- Option-D

Question61:-Decerebrate animal shows all the features except

- (i) Absence of Righting reflex
- (ii) Opisthotonus
- (iii) Increased muscle tone in Flexor group of muscle
- (iv) Can stand unsupported

A:-Only (i)

B:-Only (ii)

C:-Only (ii and iv)

D:-Only (iii)

Correct Answer:- Option-D

Question62:-Which of the following is/are correct statement about Pacinian corpuscle?

- (i) Slowly adapting receptors
- (ii) Respond maximum to sustained touch
- (iii) Found in less number in Mesentery
- (iv) Found in large number in the Skin and Subcutaneous tissue

A:-Only (i and iv)

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

Correct Answer:-Question Cancelled

Question63:-Lesions of Posteroventral nucleus of Thalamus result in

- (i) Thalamic phantom limb
- (ii) Intention tremor
- (iii) Choreoathetosis
- (iv) Thalamic hand

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

Correct Answer:-Question Cancelled

Question64:-Statement which is/are true about EEG are

- (i) EEG of Grandmal epilepsy is a high frequency low voltage pattern
- (ii) Psychomotor epilepsy is characterized by lower than normal frequency waves
- (iii) Petitmal epilepsy is characterized by a spike and dome pattern
- (iv) Sleep spindle appear during stage III of NREM sleep

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

Correct Answer:- Option-B

Question65:-Following are seen in Huntington's disease except

- (i) Hypokinetic movements
- (ii) Slurred speech
- (iii) Dementia
- (iv) Death usually within 10 to 15 yrs after the onset of symptom

- A:-Only (i)
- B:-Only (ii)
- C:-Only (ii and iv)
- D:-Only (iii)

Correct Answer:- Option-A

Question66:-Which of the following statement is/are true regarding Aphasias?

- (i) They are abnormalities of language functions that are not due to defects of vision or hearing or to motor paralysis
- (ii) They are caused by lesions in the Categorical hemisphere
- (iii) In nonfluent aphasia, the lesion is in Wernicke's area

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

Correct Answer:- Option-C

Question67:-Circumventricular organ include the following structures except

- A:-Area Postrema
- B:-Posterior pituitary
- C:-Hypothalamus
- D:-Pineal gland

Correct Answer:- Option-D

Question68:-Statement which is/are false regarding Neuropathic pain

- (i) Causalgia is an example for neuropathic pain
- (ii) Reflex sympathetic dystrophy is often present
- (iii) Often accompanied by hyperalgesia and allodynia
- (iv) Skin in the affected area is thick and there is decreased hair growth

- A:-Only (i and ii)
- B:-Only (iv)
- C:-Only (iii)
- D:-None of the above

Correct Answer:- Option-B

Question69:-Following statement is/are true about Demyelinating diseases

- (i) Multiple sclerosis is the most common demyelinating disease of the Central Nervous System
- (ii) The viral antigen theory regarding multiple sclerosis indicate that it's incidence is greater in tropical region than in temperate region
- (iii) In Landry-Guillain-Barre's syndrome complete recovery is possible in most of the cases

A:-Only (i and iii)

B:-Only (ii and iii)

C:-Only (i and ii)

D:-All the above (i, ii and iii)

Correct Answer:- Option-A

Question70:-Two of the most unusual nonclassic neurotransmitters in the Autonomic Nervous System are

A:-Monoamines and GABA

B:-Dopamine and 5-Hydroxytryptamine

C:-Oxytocin and Neurotensin

D:-ATP and Nitric Oxide

Correct Answer:- Option-D

Question71:-Which of the following statement is/are false about Purkinje cells of Cerebellum?

- (i) They are the principal cells of Cerebellum
- (ii) Each purkinje cell receives powerful synaptic contact from just a single climbing fiber, which comes from a cell in the Superior Olivary Nucleus
- (iii) Each purkinje cell receives a synapse from 150000 parallel fibers, which originate from the tiny granule cells of the Cerebellum

A:-Only (i)

B:-Only (ii)

C:-Only (iii)

D:-None of the above

Correct Answer:- Option-B

Question72:-Which of the following is not a risk factor of Alzheimer disease?

A:-Age

B:-Presenilin 1 mutation

C:-Loss of GABA ergic pathway to the Globus pallidus

D:-Trisomy 21

Correct Answer:- Option-C

Question73:-Following statement is/are true about Horner syndrome

- (i) Bilateral Ptosis, miosis and anhidrosis are the key features
- (ii) Cocaine treatment have less effect
- (iii) Less norepinephrine in the synaptic cleft
- (iv) In case of post ganglionic Horner syndrome, solution containing hydroxyamphetamine can be given

A:-Only (i and iii)

B:-Only (ii, iii and iv)

C:-Only (i, iii and iv)

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

Correct Answer:- Option-B

Question74:-Which of the following statement is/are false about cerebellum?

- (i) The two main inputs to the cerebellar cortex are Climbing fibers and Mossy fibers
- (ii) Spinocerebellum is the phylogenetically the newest part of Cerebellum
- (iii) Cerebrocerebellum is the largest part of the human cerebellum
- (iv) Palaeocerebellum helps in the regulation of muscle tone

A:-Only (ii)

B:-Only (ii and iii)

C:-Only (iv)

D:-None of the above

Correct Answer:- Option-A

Question75:-Examples in which visaeceral afferents overwhelm cortical functions are

- (i) Nausea, hunger and Visceral pain
- (ii) Bladder and bowel distention
- (iii) Hyperthermia and hypothermia
- (iv) Dyspnea

A:-Only (ii and iii)

B:-Only (i and iii)

C:-Only (ii, iii and iv)

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

Correct Answer:-Question Cancelled

Question76:-Which of the following is/are not involved in color vision?

- (i) Activation of a pathway that signals the difference between S cone responses and the sum of Land M cone responses
- (ii) Geniculate layers 3-6
- (iii) P-Pathway
- (iv) Area V3A of visula cortex

A:-Only (i)

B:-Only (ii and iii)

C:-Only(iii)

D:-Only (iv)

Correct Answer:- Option-D

Question77:-Which of the following is/are correct statement about Olfactory receptors?

- (i) Human olfactory epithelium contains 1-2 million of bipolar olfactory sensory neurons
- (ii) Dendrites of each neuron terminates in a knob containing 10 to 20 cilia
- (iii) The cilia are unmyelinated process of about 20 μ m in length
- (iv) The cilia contains specific receptors for odorants

A:-Only (i and iii)

B:-Only (ii and iii)

C:-Only (ii and iv)

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

Correct Answer:-Question Cancelled

Question78:-An 8 year old boy School met with at road traffic accident and his MRI revealed damage to the brain including the periamygdaloid, piriform and entorhinal cortices. Which of the following sensory deficit is he most likely to experience?

A:-Visual disturbance

B:-Auditory Problems

C:-Hyperosmia

D:-Taste and odour abnormalities

Correct Answer:- Option-D

Question79:-Which of the following statement is/are wrong about Taste Sensation?

- (i) Many G-protein linked receptors in the human genome are taste receptors for bitter taste
- (ii) Sweet taste is triggered by H^+ ions
- (iii) A 10° degree change in concentration of the substance being tasted is necessary before an intensity difference a be detected
- (iv) Substances that taste sweet are acting via G-protein gustducin

A:-Only (i)

B:-Only (ii and iii)

C:-Only (iv)

D:-None of the above

Correct Answer:- Option-B

Question80:-Which of the following condition result in sensoneuronal deafness?

A:-Acute otitis media

B:-Impaction of wax in the external auditory canal

C:-Miniere's disease

D:-Otosclerosis

Correct Answer:- Option-C

Question81:-Presence of non diffusible ion on one side of membrane leads to the distribution of diffusible ions in a predictable way. This is explained by

A:-Nemst equation

B:-Gibbs Donnan equation

C:-Hasselbalch equation

D:-Goldman-hodgkin-katz equation

Correct Answer:- Option-B

Question82:-Which of the following is true about spliceosomes

A:-Composed of RNAs, DNAs and proteins

B:-Eliminates introns of some genes

C:-Segments of DNA which determines the formation of proteins

D:-Segments of RNA that are not translated

Correct Answer:- Option-B

Question83:-Hormone sensitive lipase

- A:-Catalyses the breakdown of triglycerides in adipose tissue
 - B:-Hydrolyses TG, VLDL and Cholesterol in Capillaries
 - C:-Increases during feeding
 - D:-Requires cofactor heparin for its action
- Correct Answer:- Option-A

Question84:-Effects of microgravity includes

- A:-Red out
 - B:-Balck out
 - C:-Decrease in cardiac output
 - D:-None of the above
- Correct Answer:- Option-D

Question85:-Translation is

- A:-Conversion of information encoded in mRNA to a protein
 - B:-Attachment of tRNA to polypeptide chain
 - C:-Hydroxylation, carboxylation and glycosylation of amino acid and residues
 - D:-Formation of RNA from DNA
- Correct Answer:- Option-A

Question86:-In true hermaphroditism

- A:-Genetic females are exposed to androgens
 - B:-Has gonads of one sex and genitalia of the other
 - C:-Individual have both ovaries and testes
 - D:-Can turn out as Turner syndrome or Klinefelter syndrome
- Correct Answer:- Option-C

Question87:-Constitutional precocious puberty is due to

- A:-Disorders involving posterior hypothalamus
 - B:-Congenital virilising adrenal hyperplasia
 - C:-Leydig cell tumour
 - D:-None of the above
- Correct Answer:- Option-D

Question88:-Spermatids mature to spermatozoa in

- A:-Epididymis
 - B:-Sertoli cells
 - C:-Leydig cell
 - D:-Rete testis
- Correct Answer:-Question Cancelled

Question89:-Hormone responsible for the final progression to ovulation stage and follicular growth is

- A:-FSH
 - B:-LH
 - C:-Progesterone
 - D:-Oestrogen
- Correct Answer:- Option-B

Question90:-Milk ejection is the function of

- A:-Oxytocin
 - B:-Vasopressin
 - C:-Prolactin
 - D:-Oestrogen
- Correct Answer:- Option-A

Question91:-All are examples of negative feed back control except

- A:-Maintenance of osmolarity

B:-Regulation of blood glucose

C:-Stress response

D:-LH surge

Correct Answer:- Option-D

Question92:-Hypothalamo-hypophyseal tract connect hypothalamus with

A:-Anterior lobe of pituitary

B:-Posterior lobe of pituitary

C:-Intermediate lobe of pituitary

D:-All of the above

Correct Answer:- Option-B

Question93:-ANP causes

1. Afferent arteriolar constriction
2. Relaxation of mesangial cells
3. Increases capillary permeability
4. Inhibits renin secretion

A:-1 is correct

B:-2, 3 and 4 are correct

C:-1, 2 and 3 are correct

D:-only 4 is correct

Correct Answer:- Option-B

Question94:-False statement about GH is

A:-Causes an increase in plasma cholesterol

B:- Na^+ and K^+ excretion is reduced

C:-It is ketogenic

D:-It stimulates the production of somatomedins by the liver

Correct Answer:- Option-A

Question95:-Hyperthyroidism is characterised by all except

A:-increased food intake

B:-increased BMI

C:-increased sweating

D:-increased weight gain

Correct Answer:- Option-D

Question96:-Example for amino acid derived hormone is

A:-Serotonin

B:-Aldosterone

C:-Insulin

D:-Calcitonin

Correct Answer:- Option-A

Question97:-Insulin stimulated glucose uptake in adipose tissue take place through

A:-GLUT 2

B:-GLUT 4

C:-GLUT 6

D:-GLUT 7

Correct Answer:- Option-B

Question98:-The most common cause of adreno-genital syndrome is due to deficiency of

A:-Cholesterol desmolase

B:-11 β hydroxylase

C:-21 β hydroxylase

D:-3 hydroxysteroid dehydrogenase

Correct Answer:- Option-C

Question99:-Action of parathormone includes

- A:-Calcium and phosphate reabsorption
- B:-Calciuria and phosphate reabsorption
- C:-Calcium reabsorption and phosphaturia
- D:-Calciuria and phosphaturia

Correct Answer:- Option-C

Question100:-Regarding melatonin all are true except

- A:-It is synthesised from tyrosine
- B:-Synthesis and secretion increases during dark
- C:-Diurnal secretion depends upon norepinephrine secretion
- D:-It is released from pineal gland which is situated on the roof of 3rd ventricle

Correct Answer:- Option-A