

PYQ

ZOOLOGY

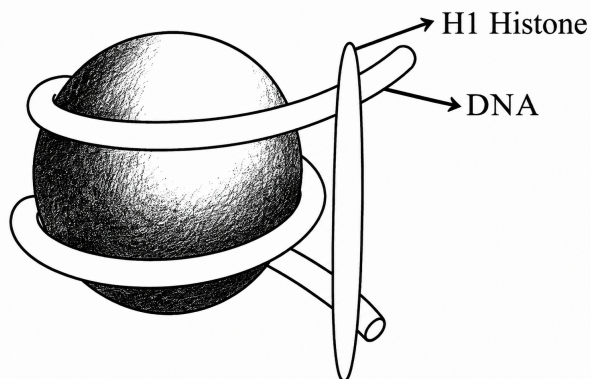
- Q1** Identify the most infectious and fatal type of malarial parasite:
 (A) Plasmodium ovale
 (B) Plasmodium vivax
 (C) Plasmodium malariae
 (D) Plasmodium falciparum
- Q2** The type of antibodies produced during the allergic reaction
 (A) IgM (B) IgA
 (C) Ig E (D) IgG
- Q3** One of the side-effect of the use of anabolic steroids in females
 (A) Masculinisation
 (B) Loss of memory
 (C) Hallucination
 (D) Cirrhosis of liver
- Q4** Which one of the following is a opiate narcotics ?
 (A) LSD (B) Barbiturates
 (C) Morphine (D) Amphetamines
- Q5** What does the sample of given base sequence represent?
 5 - GAAT T C - 3
 3 - CT T AAG - 5
 (A) Palindromic sequence
 (B) Initiator codon at S' end
 (C) Deletion mutation
 (D) Completion of replication
- Q6** Gel electrophoresis is used for
 (A) Cutting of DNA into fragments.
 (B) Construction of recombinant DNA by joining with cloning vectors
 (C) Isolation of DNA molecule
 (D) Separation of DNA fragments according to their size
- Q7** An antibiotic resistance gene in a vector usually helps in the selection of Options:
 (A) Non-competent cells
 (B) Competent cells
 (C) Transformed cells
 (D) Non-recombinant cells
- Q8** Silencing of specific mRNA in RNAi is by
 (A) dsDNA (B) SsRNA
 (C) dsRNA (D) ssDNA
- Q9** Cry-IAC effectively controls,
 (A) Ring worm
 (B) Cotton bollworms
 (C) Corn borer
 (D) Root nematode
- Q10** ADA deficiency can be cured by
 (A) Heart Transplantation
 (B) Bone-marrow Transplantation
 (C) Liver Transplantation
 (D) Kidney Transplantation
- Q11** The term "Molecular Scissors" refers to
 (A) Tag polymerase
 (B) Polymerase-I
 (C) Polymerase-II
 (D) Restriction enzyme
- Q12** The animals which are active during day time :
 (A) Crepuscular (B) Diurnal
 (C) Aural (D) Vesporal
- Q13** Particulates of size pose greatest risk to human health.
 (A) Less than 7.5 micrometers in diameter
 (B) Less than 2.5 micrometers in diameter
 (C) Less than 4.5 micrometers in diameter
 (D) Less than 3.5 micrometers in diameter



- Q14** Maintenance of constant internal environment is called as Options:
 (A) Osmoregulation
 (B) Metastasis
 (C) Homeostasis
 (D) Thermoregulation
- Q15** Different types of respiratory organs like gills, book gills, book lungs and trachea are present in
 (A) Annelids (B) Sponges
 (C) Molluses (D) Arthropods
- Q16** Rows of S-shaped setae in the body of earthworm are present in all the segments, except
 (A) the first segment
 (B) the last segment
 (C) the first and last segment
 (D) the first, last and clitellum
- Q17** The type of Polysaccharide present in a cotton fibre
 (A) Glycogen (B) Starch
 (C) Insulin (D) Cellulose
- Q18** A person suddenly starts coughing while swallowing food. This coughing would have been due to improper movement of
 (A) Tongue (B) Epiglottis
 (C) Diaphragm (D) Neck
- Q19** Filtration of blood during urine formation takes place in
 (A) Glomerulus
 (B) DCT
 (C) PCT
 (D) Collecting duct
- Q20** Corpus Callosum connects the
 (A) Spinal cord with the brain
 (B) Two lobes of cerebellum
 (C) Two cerebral hemispheres
 (D) Cerebrum and cerebellum
- Q21** Menstrual cycle is exhibited by:
 (A) Tiger (B) Cow
 (C) Rat (D) Apes
- Q22** The testis are situated outside the abdominal cavity in scrotum as it helps to
 (A) Regulates hormone secretion
 (B) Store sperm
 (C) Release sperm
 (D) Maintain the low temperature
- Q23** Identify the odd one from the following :
 (A) Isthmus (B) Fimbriae
 (C) Labia minora (D) Infundibulum
- Q24** In which month of gestation, the first movements of foetus and appearance of hair on its head is observed?
 (A) 8th month (B) 1st month
 (C) 4th month (D) 5th month
- Q25** The most abundant type of WBC cells
 (A) Monocytes (B) Basophils
 (C) Neutrophils (D) Eosinophils
- Q26** Which of the following is correctly matched ?
 (A) Spores - Sponge
 (B) Conidia - Hydra
 (C) Gemmules - Amoeba
 (D) Bulbil - Agave
- Q27** The technique advised by a doctor to overcome the problem of infertility:
 (A) RTI (B) MTP
 (C) ART (D) RCH
- Q28** Amniocentesis is a process to:
 (A) Determine the sex of the foetus
 (B) Determine any disease of heart
 (C) Know about the disease of brain
 (D) To grow cell on culture medium
- Q29** The first human like being is
 (A) Homo menthus (B) Homo erectus
 (C) Homo habilis (D) Homo sapiens



Q30 Which of the following hormones is not secreted by human placenta?



- (A) FSH (B) hCG
(C) Relaxin (D) Progesterone

Q31 Which of the following is abbreviated as ZIFT?

- (A) Zygote Intra Fallopian Tube
(B) Zygote Intra Fallopian Transfer
(C) Zygote Inter Fallopian Tube
(D) Zygote Inter Fallopian Transfer

Q32 An example for hormone releasing IUD is

- (A) Lippes loop (B) LNG-20
(C) Implant (D) Multiload 375

Q33 MTPs are considered relatively safe during

- (A) 180 days of pregnancy
(B) Second trimester
(C) First trimester
(D) 24 weeks of pregnancy

Q34 From the following table, select the option that correctly characterizes various phases of menstrual cycle :

(A)	Menstruation phase	Follicular phase	Luteal phase
	A Menses	L.H. Surge	Regeneration of endometrium
(B)	Menstruation phase	Follicular phase	Luteal phase
	B Matured follicle	Regression of corpus luteum	Ovulation
(C)	Menstruation phase	Follicular phase	Luteal phase
	C Regeneration of endometrium	High level of progesterone	Developing corpus luteum
(D)	Menstruation phase	Follicular phase	Luteal phase
	D Menses	Developing corpus luteum	Follicle maturation

Q35 Which of these is NOT an example for Adaptive radiation?

- (A) Placental mammals
(B) Darwin's finches
(C) Long-necked Giraffe
(D) Australian marsupials



- Q36** In a population of 800 rabbits showing Hardy-Weinberg equilibrium, the frequency of recessive individuals was 0.16. what is the frequency of heterozygous individuals?
 (A) 0.84 (B) 0.4
 (C) 0.36 (D) 0.48
- Q37** Identify the symptoms of pneumonia.
 (A) Constipation Abdominal pain, cramps, blood clots
 (B) Difficulty in breathing, fever, chills, cough, headache
 (C) High fever, weakness, stomach pain, loss of appetite
 (D) Nasal congestion and discharge, cough, sore throat, headache
- Q38** With respect to Inbreeding, which among the following is not true?
 (A) It helps in elimination of less desirable genes
 (B) Inbreeding decreases homozygosity
 (C) It helps to evolve a pure line in an animal
 (D) It helps in accumulation of superior genes
- Q39** In MoET technique fertilized eggs are transferred into surrogate mother in which of the following stage?
 (A) 832 celled stage
 (B) 2-4 celled stage
 (C) 1632 celled stage
 (D) 8-16 celled stage
- Q40** The toxic substance 'haemozoin' responsible for high fever and chill, is released in which of the following diseases?
 (A) Malaria (B) Dengue
 (C) Typhoid (D) Pneumonia
- Q41** Which of these is NOT a method to make host cells 'component' to take up DNA?
 (A) Biolistics
 (B) Micro-injection
 (C) Use of disarmed pathogen vectors
 (D) Elution
- Q42** Select the correct statement from the following:
 (A) The first step in PCR is heating which is used to separate both the strands of gene of interest
 (B) Genetic engineering works only on animals and not yet successfully used on plants
 (C) DNA from one organism will not band to DNA from other organism
 (D) There are no risk factors associated with r-DNA technology
- Q43** Choose the incorrect statement with reference to Kangaroo rat.
 (A) Uses minimal water to remove excretory products
 (B) Found in North American desert
 (C) Eliminates dilute urine
 (D) Meets its water requirements through internal fat oxidation
- Q44** Generally, bears avoid winter by undergoing
 (A) Aestivation (B) Diapause
 (C) Migration (D) Hibernation
- Q45** PCR is used for
 (A) DNA digestion
 (B) DNA isolation
 (C) DNA amplification
 (D) DNA ligation



Q46 Find out the correct match.

(A)		Disease	Pathogen	Main organ affected
	(A)	Filaria	Common round worm	Small intestine
(B)		Disease	Pathogen	Main organ affected
	(B)	Ringworm	Fungus	Skin
(C)		Disease	Pathogen	Main organ affected
	(C)	Dysentery	Protozoa	Liver
(D)		Disease	Pathogen	Main organ affected
	(D)	Typhoid	Bacteria	Lungs

Q47 Match the following columns and choose the correct option:

Column-I	Column-II
1. Haemophilus influenzae	p. Malignant malaria
2. Entamoeba histolytica	q. Elephantiasis
3. Plasmodium falciparum	r. Pneumonia
4. Wuchereria bancrofti	s. Amoebiasis

- (A) 1-s, 2-p, 3-q, 4-r
 (B) 1-q, 2-r, 3-s, 4-p
 (C) 1-r, 2-p, 3-q, 4-s
 (D) 1-r, 2-s, 3-p, 4-q

Q48 From the following tools / techniques of genetic engineering, identify those which are required for cloning a bacterial gene in animal cells and choose the correct option:

- I. Endonuclease
 II. Ligase
 III. A. tumefaciens
 IV. Microinjection
 V. Gene gun
 VI. Lysozyme
 VII. Cellulase
 VIII. Electrophoresis
 (A) I, III, IV, V, VII
 (B) II, III, V, VII, VIII
 (C) II, III, IV, VI, VII, VIII
 (D) I, II, IV, VI, VIII

Q49 Flame cells present in the members of platyhelminthes are specialized to perform,

- (A) Respiration and Excretion
 (B) Osmoregulation and Circulation
 (C) Respiration and Osmoregulation
 (D) Osmoregulation and Excretion

Q50 The function of Typhlosole in earthworm is

- (A) Transportation
 (B) Grinding of soil particles
 (C) Increasing the effective area of absorption in the intestine
 (D) Grinding of decaying leaves



Q51 Match List-I and List-II with respect to proteins and their functions and select the correct option.

List - I	List - II
1. Collagen	p. Fights infectious agents
2. Trypsin	q. Hormone
3. Insulin	r. Enzyme
4. Antibody	s. Intercellular ground substance

- (A) 1-s, 2-r, 3-q, 4-p
 (B) 1-q, 2-r, 3-q, 4-s
 (C) 1-s, 2-p, 3-r, 4-p
 (D) 1-s, 2-q, 3-r, 4-p

Q52 Considering the stroke volume of an adult healthy being is 70 mL, identify the cardiac output in one hour from the following:

- (A) 302.4 Lit/hour (B) 5.04 Lit/hour
 (C) 50.40 Lit/hour (D) 30.24 Lit/hour

Q53 Function of contractile vacuole in Amoeba is

- (A) Osmoregulation and movements
 (B) Excretion and osmoregulation
 (C) Digestion and excretion
 (D) Digestion and respiration

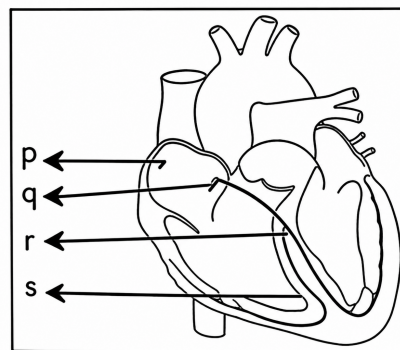
Q54 Atrial Natriuretic Factor (ANF) acts as a

- (A) Vasoconstrictor
 (B) Check on Renin-Angiotension mechanism
 (C) Hypertension inducer
 (D) Promoter on Renin-Angiotension mechanism

Q55 The vibrations from the ear drum are transmitted through ear ossicles to

- (A) Tectorial membrane
 (B) Cochlea
 (C) Auditory nerves
 (D) Oval window

Q56 Identify the option showing the correct labelling for p , q , r and s with reference to the conducting system of the human heart.



- (A) p-Bundle of His, q-SAN, r-Interventricular septum, s-AVN
 (B) p-SAN, q-AVN, r-Bundle of His, s-Interventricular septum
 (C) p-Interventricular septum, q-AVN, r-Bundle of His, s-SAN
 (D) p-AVN, q-SAN, r-Interventricular septum, s-Bundle of His

Q57 In the female reproductive system, a tiny finger like structure which lies at the upper junction of the two labia minora above the urethral opening is called

- (A) Clitoris (B) Hymen
 (C) Vagina (D) Mons pubis



Q58 Consider the following statements with reference to female reproductive system:

Statement 1: The presence or absence of hymen is not a reliable indicator of virginity or sexual experience

Statement 2: The sex of the foetus is determined by the father and not by the mother.

Choose the correct option from the following:

- (A) Statement 1 is wrong and Statement 2 is correct
- (B) Statement 1 is correct and Statement 2 is wrong
- (C) Both Statement 1 and Statement 2 are wrong
- (D) Both Statement 1 and Statement 2 are correct

Q59 The male sex accessory ducts include,

- (A) Rete testis, vasa efferentia, seminal vesicle and vas deferens
- (B) Rete testis, vasa efferentia, epididymis and seminal vesicle
- (C) Rete testis, vasa efferentia, epididymis and vas deferens
- (D) Rete testis, urethra, epididymis and vas deferens

Q60 With reference to human sperm, match the List - I with List - II.

List - I	List - II
1. Head	p. Filled with enzyme
2. Acrosome	q. Contains mitochondria
3. Middle piece	r. Sperm mobility
4. Tail	s. Contains haploid nucleus

Choose the correct option from the following:

- (A) 1-q, 2-s, 3-r, 4-p
- (B) 1-s, 2-p, 3-q, 4-r
- (C) 1-r, 2-q, 3-s, 4-p
- (D) 1-s, 2-r, 3-n, 4-q

Q61 The typical 'lub-dub' sounds heard during heartbeat are produced due to [KCET 2024]

- (A) Closure of semilunar valves
- (B) Closure of bicuspid and tricuspid valves
- (C) Closure of bicuspid and tricuspid valves followed by semilunar valves
- (D) Opening of bicuspid and tricuspid valves followed by semilunar valves

Q62 The functional unit of contraction is a [KCET 2024]

- (A) Portion of myofibril between two successive Z-lines
- (B) Portion of myofibril between two successive M-lines
- (C) Centre of the H-zone
- (D) Centre of the I-band



- Q63** Match the parts of the brain given in List I with their functions given in List II. [KCET 2024]

List I (Parts of the brain)		List II (Functions)	
1.	Medulla oblongata	p.	Body temperature
2.	Hypothalamus	q.	Olfaction
3.	Cerebral cortex	r.	Respiration
4.	Limbic system	s.	Motor function

Choose the correct option from the following :

- (A) 1-p, 2-r, 3-s, 4-q
 (B) 1-q, 2-s, 3-r, 4-p
 (C) 1-s, 2-p, 3-q, 4-r
 (D) 1-r, 2-p, 3-s, 4-q
- Q64** Hydra reproduces asexually by producing [KCET 2024]
 (A) Zoospores (B) Conidia
 (C) Buds (D) Gemmule
- Q65** When male and female gametes are morphologically distinct, the condition is known as [KCET 2024]
 (A) Homogametes
 (B) Heterogametes
 (C) Hermaphrodites
 (D) Sexual dimorphism
- Q66** Which of the following hormones is not secreted by human placenta? [KCET 2024]
 (A) Progesterone (B) hCG
 (C) Estrogen (D) LH
- Q67** In human females, the endometrium of uterus consists of [KCET 2024]
 (A) Smooth muscle
 (B) Glandular layer
 (C) Adipose layer
 (D) Cartilaginous layer

- Q68** If two primary spermatocytes and two primary oocytes undergo meiosis simultaneously, what will be the ratio of spermatozoa and ova produced at the end of the gametogenesis ? [KCET 2024]

(A) 2: 1 (B) 4: 1
 (C) 6: 2 (D) 1: 2

- Q69** The Government of India legalised MTP with some strict regulations in the year [KCET 2024]

(A) 1951 (B) 1961
 (C) 1971 (D) 2001

- Q70** The process in which a small part of the vas deferens is removed or tied up through a small incision, is called

(A) MTP (B) Vasectomy
 (C) Tubectomy (D) GIFT

- Q71** Read the following statements:

Statement I : All vertebrates develop a row of vestigial gill slits during embryonic stage.

Statement II : Embryos always pass through the adult stages of other animals

Which of the following options is correct with reference to these statements? [KCET 2024]

(A) Statement I is correct, Statement II is incorrect
 (B) Statement I is incorrect, Statement II is correct
 (C) Both Statements I and II are correct
 (D) Both Statements I and II are incorrect

- Q72** Stanley Miller simulated the conditions of pre-biotic earth using spark-discharge apparatus. Which organic compounds were observed by him on analysing the end product of his experiment? [KCET 2024]

(A) Pigments (B) Fats
 (C) Nitrogen bases (D) Amino acids



- Q73** Most ape-like ancestral primate was [KCET 2024]
 (A) Dryopithecus
 (B) Ramapithecus
 (C) Australopithecus
 (D) Neanderthal man
- Q74** The principle of vaccination is based on which property of immune system? [KCET 2024]
 (A) Memory (B) Specificity
 (C) Diversity (D) Plasticity
- Q75** Genome of HIV replicates in the macrophages with the help of an enzyme called [KCET 2024]
 (A) DNA Polymerase
 (B) RNA Polymerase
 (C) Reverse Transcriptase
 (D) DNA Ligase
- Q76** Read the following statements:
 Statement I: Morphine is obtained by acetylation of Heroin.
 Statement II : Cannabinoids are known for their effect on cardiovascular system. Which of the following options is correct with reference to these statements? [KCET 2024]
 (A) Both Statement I and II are correct
 (B) Statement I is correct and Statement II is incorrect
 (C) Statement I is incorrect and Statement II is correct
 (D) Both Statements I and II are incorrect
- Q77** Mule is the result of [KCET 2024]
 (A) Out-crossing
 (B) Cross-breeding
 (C) Interspecific hybridization
 (D) Out-breeding
- Q78** Which of these enzymes is required to cleave a plasmid? [KCET 2024]
 (A) Ligase (B) Endonuclease.
 (C) Exonuclease (D) Polymerase

- Q79** DNA polymerase of *Thermus aquaticus* is [KCET 2024]
 (A) Thermolabile (B) Thermophobic
 (C) Exonuclease (D) Thermostable
- Q80** If a recombinant DNA bearing gene for resistance to Ampicillin is transferred into *E. coli* cells, host cells become transformed into Ampicillin resistant cells. What happens when these *E. coli* are grown on medium containing Ampicillin? [KCET 2024]
 (A) Non-transformants will grow and transformants will die
 (B) Non-transformants will die and transformants will grow
 (C) Both non-transformants and transformants will die
 (D) Both non-transformants and transformants will grow
- Q81** Which of the following is based upon the principle of antigen-antibody interaction? [KCET 2024]
 (A) PCR
 (B) ELISA
 (C) rDNA technology
 (D) Gel Electrophoresis
- Q82** Which among the following is used to treat Emphysema? [KCET 2024]
 (A) Human Hormone- α Antitrypsin
 (B) Human - Interferon
 (C) Human protein- α Antitrypsin
 (D) Humana Lactalbumin
- Q83** Homeostasis is a condition where the organisms [KCET 2024]
 (A) Maintain a constant internal environment in an everchanging external environment
 (B) Do not maintain a constant internal environment
 (C) Change their internal environment according to their external environment
 (D) Change their internal environment when the external environment is constant



- Q84** Identify the phylum which shows the following characteristics: [KCET 2024]
 (1) Animals are exclusively marine, radially symmetrical and diploblastic
 (2) Body bears eight external rows of ciliated comb plates which help in locomotion.
 (3) Digestion is both extracellular and intracellular.
 (4) Reproduction only by sexual modes.
 (A) Coelenterata (B) Mollusca
 (C) Arthropoda (D) Ctenophora
- Q85** Ciliated epithelial cells are present in [KCET 2024]
 (A) Kidneys (B) Intestines
 (C) Blood Vessels (D) Bronchioles
- Q86** Exoskeleton of Arthropods is made up of unique complex polysaccharide known as [KCET 2024]
 (A) Hyaluronic Acid
 (B) Chitin
 (C) Waxes
 (D) Cellulose
- Q87** The term Uremia refers to [KCET 2024]
 (A) Accumulation of Urea in blood.
 (B) Presence of Glucose in the urine.
 (C) Accumulation of Uric acid in blood.
 (D) Accumulation of Uric acid in kidneys.
- Q88** Find the incorrect statement among the following: [KCET 2024]
 (A) In sex linked recessive traits the gene is transmitted from unaffected carrier female to some of male progeny
 (B) Accumulation of phenylpyruvic acid in brain results in mental retardation
 (C) Individuals affected by Down's Syndrome will have congenital heart defect and are more intelligent
 (D) Turner's Syndrome is caused due to the absence of one X-chromosome

- Q89** In Structural gene, the template DNA strand has nucleotide sequences - ATGCATGCATGCATGC-5'. Find the correct and complimentary nucleotide sequence on coding strand. [KCET 2024]
 (A) 5'-ATGCATGCATGCATGC-3'
 (B) 3'-GCATGCATGCATGCAT-5'
 (C) 5'-TACGTACGTACGTACG-3'
 (D) 3'-TACGTACGTACGTACG-5'
- Q90** The chemical substances which are produced by some microbes which can kill or retard the growth of other microbes are known as [KCET 2024]
 (A) Statins (B) Streptokinases
 (C) Cyclosporins (D) Antibiotics
- Q91** Match the hormone with its site of production: [KCET 2025]

Hormone	Site of production	
a. hCG and hPL	i.	Ovary
b. Progesterone	ii.	Placenta
c. Androgens	iii.	Corpus luteum
d. Relaxin	iv.	Leydig cells

- (A) a-iii, b-i, c-iv, d-ii
 (B) a-iv, b-i, c-ii, d-iii
 (C) a-i, b-ii, c-iv, d-iii
 (D) a-ii, b-iii, c-iv, d-i



- Q92** Choose the correct sequence of sperm transport during ejaculation [KCET 2025]
 (A) Seminiferous tubules rete testis epididymis vasa efferentia vas deferens ejaculatory duct
 (B) Seminiferous tubules vasa efferentia rete testis epididymis vas deferens ejaculatory duct
 (C) Seminiferous tubules rete testis epididymis vas deferens vasa efferentia ejaculatory duct
 (D) Seminiferous tubules rete testis vasa efferentia epididymis vas deferens ejaculatory duct
- Q93** Select the mismatched pair :
 (1) First month of pregnancy - Formation of heart
 (2) Second month of pregnancy - Movement of foetus
 (3) Third month of pregnancy - Formation of most of the major organ systems
 (4) Six month of pregnancy - Eye lids separate and eye lashes are found [KCET 2025]
 (A) b (B) c
 (C) d (D) a
- Q94** Out of the following options, identify which one is NOT a natural method of contraception ?
 (A) Implants
 (B) Lactational amenorrhea
 (C) Periodic abstinence
 (D) Coitus interruptus
- Q95** In zygote intrafallopian tube transfer, the embryo upto stage is transferred into the fallopian tube [KCET 2025]
 (A) 16 blastomeres (B) 8 blastomeres
 (C) 32 blastomeres (D) 2 blastomeres

- Q96** Read the following statements : [KCET 2025]
 Statement 1: MTP is to get rid off wanted pregnancies due to a causal unprotected intercourse or failure of contraceptives used during coitus or rapes
 Statement II: MTPs are performed legally by qualified doctors by giving proper medical justification Choose the correct answer from the options given below :
 (A) Statements I and II are incorrect
 (B) Statement I is correct but Statement II is incorrect
 (C) Statement I is incorrect but Statement II is correct
 (D) Statements I and II are correct
- Q97** How many types of gametes will be formed by a parent with genotype 'AaBbCc'? [KCET 2025]
 (A) 4 (B) 8
 (C) 12 (D) 6
- Q98** When a change in the gene frequency of a population occurs by chance, it is called [KCET 2025]
 (A) Gene migration
 (B) Genetic recombination
 (C) Genetic drift
 (D) Founder effect
- Q99** Darwin's finches represent one of the best examples of [KCET 2025]
 (A) Adaptive radiation
 (B) Chemical evolution
 (C) Genetic equilibrium
 (D) Seasonal migration



Q100 Choose the correct statements from the following:

- (a) Charles Darwin travelled around the world in a ship called HMS Beagle
- (b) There has been gradual evolution of life forms
- (c) According to Darwin, fitness refers to physical fitness only -
- (d) Fossils are remains of hard parts of life forms found in rocks
- (e) Hugo De Vries, a naturalist worked in Malay Archipelago. [KCET 2025]
- (A) a, c and e are correct
- (B) a, b and d are correct
- (C) a, c and d are correct
- (D) a, b and e are correct

Q101 In which of the following, HIV replicates and produces its progeny viruses? [KCET 2025]

- (A) Memory T-lymphocytes
- (B) Killer T-lymphocytes
- (C) Suppressor T-lymphocytes
- (D) Helper T-lymphocytes

Q102 Which of the following are the techniques for detection of cancer of internal organs? [KCET 2025]

- (a) Radiography, MRI
- (b) MRI, computed tomography
- (c) Widal test, radiography
- (d) MRI, widal test
- (A) a and c (B) b and c
- (C) b and d (D) a and b

Q103 Malignant malaria is caused by [KCET 2025]

- (A) Plasmodium vivax
- (B) Plasmodium falciparum
- (C) Plasmodium rubrum
- (D) Plasmodium malariae

Q104 Read the following statements and select the correct option [KCET 2025]

Statement I: Biocontrol refers to the use of biological methods for controlling plant diseases and pests.

Statement II: Trichoderma species are effective biocontrol agents for several plant pathogens

- (A) Both statement I and statement II are incorrect
- (B) Statement I is incorrect but statement II is correct
- (C) Both statement I and statement II are correct
- (D) Statement I is correct and statement II is incorrect

Q105 Match the contents of List-I with List-II [KCET 2025]

List-I		List-II	
(a)	Bioreactors	i.	Insulin produced by rDNA technology
(b)	Down stream processing	ii.	Vessels which convert raw material into specific Product
(c)	Recombinant protein	iii.	Detect mutated genes in suspected cancer patients
(d)	PCR	iv.	Involves separation and purification.

Choose the correct option from the following

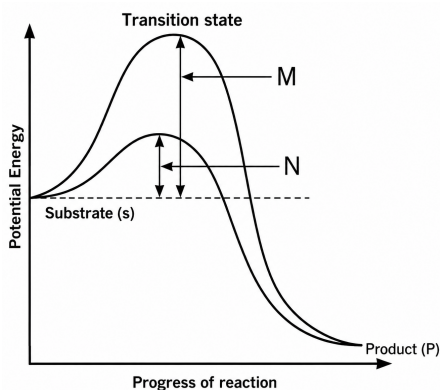
- (A) a-iv, b-ii, c-iii, d-i
- (B) a-i, b-ii, c-iv, d-iii
- (C) a-ii, b-i, c-iii, d - iv
- (D) a-ii, b-iv, c-i, d - iii



- Q106** The part of plasmid that codes for proteins involved in the replication of the plasmid is [KCET 2025]
 (A) Selectable marker
 (B) "rop"
 (C) Cloning site
 (D) Ori site
- Q107** To isolate DNA from fungal cells, bacterial cells and plant cells, the enzymes required are respectively [KCET 2025]
 (A) Lysozyme, Proteases and Ribonuclease
 (B) Chitinase, Lysozyme and Cellulase
 (C) Cellulase, Protease and Lysozyme
 (D) Lysozyme, Cellulase and Chitinase
- Q108** In mature insulin, which of the peptide is not present? [KCET 2025]
 (A) B-peptide
 (B) C-peptide
 (C) A and B peptides
 (D) A-peptide
- Q109** A scientist wants to produce virus-free plant in tissue culture. Which part of the plant will he use as an explant?
 (a) Mature stem
 (b) Axillary meristem
 (c) Apical meristem
 (d) Mesophyll cells
 Choose the correct option from the following.
 [KCET 2025]
 (A) b and c (B) b only
 (C) c and d (D) a only
- Q110** Some strains of *Bacillus thuringiensis* produce proteins that kill insects. Which one of the following is not killed by proteins of *Bacillus thuringiensis*? [KCET 2025]
 (A) Armyworm
 (B) Cotton bollworm
 (C) Tapeworm
 (D) Tobacco budworm
- Q111** During a field trip, a student observed a marine organism with worm-like body. The cylindrical body was divisible into proboscis, collar and a long trunk. The organism may be [KCET 2025]
 (A) Ophiura (B) Pterophyllum
 (C) Trygon (D) Balanoglossus
- Q112** Which of the following statements are correct with respect to Frogs ?
 (a) Bidder's canals are present in male Frogs
 (b) Copulatory pads are present in male Frogs
 (c) Sound producing vocal sacs are present in male Frogs
 (d) Cloaca is present male Frog only.
 Choose the most appropriate answer from the options given below : [KCET 2025]
 (A) a and b (B) a and c
 (C) b and d (D) a and d
- Q113** The reserve material in prokaryotic cells are stored in the cytoplasm in the form of [KCET 2025]
 (A) Inclusion bodies
 (B) Exclusion and inclusion bodies
 (C) Fat bodies
 (D) Exclusion bodies



- Q114** The graph showing the concept of activation energy of enzyme is given below: [KCET 2025]



Observe the graph and choose the correct option for M and N .

- (A) M-Activation energy with enzyme, N-Activation energy without enzyme
 (B) M-High temperature, High activation energy, N-Low temperature, Low activation energy
 (C) M-High substrate, High activation energy, N-Low substrate, Low activation energy
 (D) M-Activation energy without enzyme, N-Activation energy with enzyme
- Q115** The respiratory mechanism controlled by medulla oblongata can be altered by
 (A) Chemosensitive area in the medulla
 (B) Both Pneumotaxic and Chemosensitive areas of pons and medulla oblongata
 (C) Corpus callosum of brain
 (D) Pneumotaxic center in the pons
- Q116** Which among the three layers of blood vessel wall - Tunica intima, Tunica media and Tunica Externa is comparatively thin in the veins?
 (A) Tunica intima
 (B) Tunica externa
 (C) Both tunica media and tunica externa
 (D) Tunica media

- Q117** In nephron, transport of substances: like sodium chloride and urea is facilitated by the special arrangement called counter current mechanism that comprises of
 (A) Henle's loop and glomerulus
 (B) Vasa Recta and collecting duct
 (C) Ascending limb and collecting duct
 (D) Henle's loop and Vasa Recta

- Q118** In the mechanism-of muscle-contraction or shortening of muscle, the get reduced whereas the retain the length. [KCET 2025]

- (A) I bands, A bands
 (B) Z line, I bands
 (C) A bands, line
 (D) A bands, I bands

- Q119** Identify the correct sequence of action potential as it arrives at the axon terminal from the choices given below: [KCET 2025]

- (A) Axon terminal Synaptic cleft Synaptic vesicles Post-synaptic neuron Post-synaptic membrane
 (B) Axon terminal Post-synaptic membrane Synaptic cleft Synaptic vesicles Post-synaptic neuron
 (C) Axon terminal Synaptic vesicles Post-synaptic membrane Synaptic cleft Post-synaptic neuron
 (D) Axon terminal Synaptic vesicles Synaptic cleft Post-synaptic membrane Post-synaptic neuron



Q120 Identify the statement/s given below that does not correspond to the functions of cortisol

- (i) Maintains cardiovascular system and kidney functions
- (ii) Produces anti-inflammatory reactions
- (iii) Maintains electrolyte balance, osmosis and blood pressure
- (iv) Suppresses immune response
- (v) Stimulates RBC production [KCET 2025]

- (A) (iii) and (v) only
- (B) (ii) only
- (C) (iv) only
- (D) (i) and (ii) only



Answer Key

Q1 D
Q2 C
Q3 A
Q4 C
Q5 A
Q6 D
Q7 C
Q8 C
Q9 B
Q10 B
Q11 D
Q12 B
Q13 B
Q14 C
Q15 D
Q16 D
Q17 D
Q18 B
Q19 A
Q20 C
Q21 D
Q22 D
Q23 C
Q24 D
Q25 C
Q26 D
Q27 C
Q28 A
Q29 C
Q30 C
Q31 B
Q32 B

Q33 C
Q34 A
Q35 C
Q36 D
Q37 B
Q38 B
Q39 A
Q40 A
Q41 D
Q42 A
Q43 C
Q44 D
Q45 C
Q46 B
Q47 D
Q48 D
Q49 D
Q50 C
Q51 A
Q52 A
Q53 B
Q54 B
Q55 D
Q56 B
Q57 A
Q58 D
Q59 C
Q60 B
Q61 C
Q62 A
Q63 D
Q64 C



Q65 B
Q66 D
Q67 B
Q68 B
Q69 C
Q70 B
Q71 A
Q72 D
Q73 A
Q74 A
Q75 C
Q76 C
Q77 C
Q78 B
Q79 D
Q80 B
Q81 B
Q82 C
Q83 A
Q84 D
Q85 C
Q86 B
Q87 A
Q88 C
Q89 C
Q90 D
Q91 D
Q92 D
Q93 A
Q94 A
Q95 B
Q96 C
Q97 B
Q98 C

Q99 A
Q100 B
Q101 D
Q102 D
Q103 B
Q104 C
Q105 D
Q106 B
Q107 B
Q108 B
Q109 A
Q110 C
Q111 D
Q112 B
Q113 A
Q114 D
Q115 D
Q116 D
Q117 D
Q118 A



Q119 D

Q120 B



Hints & Solutions

Note: scan the QR code to watch video solution

Q1 Text Solution:

"Isthmus," "Fimbriae," and "Infundibulum" are anatomical terms related to the female reproductive system. The isthmus refers to a narrow portion or constriction, often found in the fallopian tubes.

Fimbriae are finger-like projections at the end of the fallopian tubes, responsible for capturing the released egg during ovulation and guiding it into the fallopian tube.

The infundibulum is the funnel-shaped opening of the fallopian tube near the ovary, which receives the egg from the ovary.

On the other hand, "Labia minora" is a term related to the external genitalia of the female reproductive system. It refers to the inner folds of skin located on either side of the vaginal opening. It is different from the other options, which are specific anatomical structures within the reproductive system.

Q2 Text Solution:

The first movements of the fetus, known as "quickening," and the appearance of hair on its head, occur at different times during gestation.

The first movements of the fetus are usually felt by the mother between 18 to 25 weeks of gestation. This can vary from woman to woman and pregnancy to pregnancy. Initially, the movements may feel like flutters or gentle taps, and as the fetus grows, the movements become more pronounced and noticeable.

As for the appearance of hair on the fetus's head, it typically occurs around the 14th to 16th week of gestation. This is a developmental milestone when the hair follicles start forming, and fine hair, known as lanugo, begins to grow on the fetus's body, including the scalp. The lanugo hair helps regulate the fetus's body temperature and usually sheds before birth.

Therefore, the appearance of hair on the fetus's head is observed earlier in gestation compared to the first movements, which are felt later in the second trimester.

Q3 Text Solution:

Closure of bicuspid and tricuspid valves followed by semilunar valves

Q4 Text Solution:

Portion of myofibril between two successive Z-lines

Q5 Text Solution:

1-r, 2-p, 3-s, 4-q

Q6 Text Solution:

Buds

Q7 Text Solution:

Heterogametes



Q8 Text Solution:

LH

Q9 Text Solution:

Glandular layer

Q10 Text Solution:

4: 1

Q11 Text Solution:

1971

Q12 Text Solution:

Vasectomy

Q13 Text Solution:

Statement I is correct, Statement II is incorrect

Q14 Text Solution:

Amino acids

Q15 Text Solution:

Dryopithecus

Q16 Text Solution:

Memory

Q17 Text Solution:

Reverse Transcriptase

Q18 Text Solution:

Statement I is incorrect and Statement II is correct

Q19 Text Solution:

Interspecific hybridization

Q20 Text Solution:

Endonuclease.

Q21 Text Solution:

Thermostable

Q22 Text Solution:

Non-transformants will die and transformants will grow

Q23 Text Solution:

ELISA

Q24 Text Solution:

Human protein-a Antitrypsin

Q25 Text Solution:

Maintain a constant internal environment in an everchanging external environment

Q26 Text Solution:

Ctenophora

Q27 Text Solution:

Blood Vessels

Q28 Text Solution:

Chitin

Q29 Text Solution:

Accumulation of Urea in blood.

Q30 Text Solution:

Individuals affected by Down's Syndrome will have congenital heart defect and are more intelligent

Q31 Text Solution:

5'-TACGTACGTACGTACG-3'

Q32 Text Solution:

Antibiotics

Q33 Text Solution:

a-ii, b-iii, c-iv, d-i

Q34 Text Solution:

Seminiferous tubules rete testis vasa efferentia epididymis vas deferens ejaculatory duct

Q35 Text Solution:

b

Q36 Text Solution:

Implants

Q37 Text Solution:

8 blastomeres

Q38 Text Solution:

Statement I is incorrect but Statement II is correct



Q39 Text Solution:

Number of gamete types is calculated by formula 2^n . Here n represents heterozygous gene pairs. Genotype AaBbCc contains three heterozygous pairs. Thus number of gametes = $2^3 = 8$. Each gamete carries one allele from each gene pair

Q40 Text Solution:

Genetic drift is random change in gene frequency. It occurs due to chance events. Small populations are affected more strongly. Alleles may become fixed or disappear accidentally. It is an important evolutionary force.

Q41 Text Solution:

Adaptive radiation

Q42 Text Solution:

a, b and d are correct

Q43 Text Solution:

Helper T-lymphocytes

Q44 Text Solution:

a and b

Q45 Text Solution:

Plasmodium falciparum

Q46 Text Solution:

Biocontrol uses biological organisms to control pests. It reduces dependence on chemical pesticides. Trichoderma species act against plant pathogens. These fungi are effective biocontrol agents. Thus both statements are correct.

Q47 Text Solution:

a-ii, b-iv, c-i, d - iii

Q48 Text Solution:

"rop"

Q49 Text Solution:

Chitinase, Lysozyme and Cellulase

Q50 Text Solution:

C-peptide

Q51 Text Solution:

Virus-free plants are produced using meristem culture. Apical and axillary meristems are usually virus free. These regions divide actively. Virus spread is minimal in meristematic tissue. Hence both b and c are correct.

Q52 Text Solution:

Bacillus thuringiensis produces insecticidal Cry proteins. These proteins kill insect larvae like bollworms. Midgut epithelial cells of insects are damaged. Tapeworm is not affected by Bt toxin. Thus tapeworm is not killed.

Q53 Text Solution:

Balanoglossus

Q54 Text Solution:

a and c

Q55 Text Solution:

Reserve materials in prokaryotes occur as inclusion bodies. These lie freely in cytoplasm. They store phosphate, glycogen or lipids. They are not membrane bound structures. Thus reserve materials occur as inclusion bodies

Q56 Text Solution:

M-Activation energy without enzyme, N-Activation energy with enzyme

Q57 Text Solution:

Pneumotaxic center in the pons

Q58 Text Solution:

Tunica media

Q59 Text Solution:

Henle's loop and Vasa Recta

Q60 Text Solution:

I bands, A bands

Q61 Text Solution:

Axon terminal Synaptic vesicles Synaptic cleft Post-synaptic membrane Post-synaptic neuron

Q62 Text Solution:

(ii) only





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