BU -

PROVISIONAL ANSWER KEY

Name of the post	**!ÓÓÉÓÔÁÎô 0ÒÏ£ÅÓÓÏÒℓ : ÏÏÌÏÇÙÉÎ 'ÏÖÅÒÎ Í ÅÎô !ÒÔÓℓ 3ÃÉÅÎÃÅ Q #Ï Í Í ÅÒÃÅ #ÏÌÌÅÇÅℓ '%3ℓ #ÌÁÓÓ?ς j3ÐÅÃÉÁÌ 2ÅÃÒÕÉô Í ÅÎô?0 × $?3ÅÃÏ ÎÄ !ÔôÅ Í ÐÔQ**
Advertisement No.	**ψσ/2025-26**
Preliminary Test Held On	**23-06-2026**
Que. No	**001-200**
Publish Date	**29-06-2026**
Last Date to Send Suggestion (s)	**03-07-2026 (Till 04:00 PM)**

THE LINK FOR ONLINE OBJECTION SYSTEM WILL START FROM 30-06-2026; 11:00 AM ONWARDS

Instructions / સૂચના

Candidate must ensure compliance to the instructions mentioned below, else objections shall not be considered: -

(1) Candidates have to pay fees of Rs.100/- for each objection. The fees can be paid from the link given herewith.

(2) The Candidate will be able to submit objection only after payment of the fees. The generation of the receipt will only be considered as final submission.

(3) The Candidate must retain the receipt of the payment of the fees. The fees, once paid, will not be refunded under any circumstances.

(4) All the objections should be submitted through **ONLINE OBJECTION SUBMISSION SYSTEM** only. Physical or submission through any other means will not be considered.

(5) All objections are to be submitted with reference to the Master Question Paper published with provisional answer key, published herewith on the website / online objection submission system. Objections should be sent referring to the Question No. & options of the Master Question Paper. Objections regarding question nos. and options other than provisional answer key (Master Question Paper) shall not be considered.

(6) Objections and answers suggested by the candidate should be in compliance with the responses given by him in his answer sheet. Objections shall not be considered, in case, if responses given in the answer sheet /response sheet and submitted objections are differed.

(7) Supportive document to the objection must be uploaded, without which objection will not be considered.

(8) Objections must be supported by authentic references or documentary evidence. Objections based solely on Al, GPT, or similar tools without supporting evidence shall not be considered. For calculation-based, mathematical, statistical, or reasoning questions, candidates shall provide the relevant calculation, methodology, or logical basis in support of the objection.

ઉમેદવારે નીચેની સૂચનાઓનું પાલન કરવાની તકેદારી રાખવી, અન્યથા વાંધા-સૂચન અંગે કરેલ રજૂઆતો ધ્યાને લેવાશે નહીં

(1) ઉમેદવારે દરેક વાંધા દીઠ રૂપિયા ૧૦૦/-ફી ભરવાની રહેશે. જે ફી આ સાથે આપેલ લીંક ઉપરથી ભરી શકાશે.

(2) ફી ભર્યા બાદ જ વાંધો સબમીટ થઈ શકશે. ફી ભર્યાની આખરી પહોંચ જ આખરી સબમીશન ગણાશે.

(3) ફી ભર્યાની પહોંચ ઉમેદવારે સાચવી રાખવાની રહેશે. એક વાર ભરેલ ફી કોઈ પણ પરિસ્થિતિમાં પરત આપવામાં આવશે નહિ.

(4) વાંધા ફક્ત **ઓનલાઈન ઓબ્જેકશન સબમીશન સીસ્ટમ** દ્વારા જ સબમીટ કરવાના રહેશે. રૂબરૂ, ટપાલ અથવા ઈ-મેઈલ કે અન્ય કોઈ રીતે આયોગને મોકલવામાં આવેલ વાંધા ધ્યાને લેવામાં આવશે નહીં, જેની ખાસ નોંધ લેવી.

(5) ઉમેદવારે પોતાને પરીક્ષામાં મળેલ પ્રશ્નપુસ્તિકામાં છપાયેલ પ્રશ્નક્રમાંક મુજબ વાંધા-સૂચનો રજૂ ન કરતાં, તમામ વાંધા-સૂચનો વેબસાઈટ પર પ્રસિધ્ધ થયેલ પ્રોવિઝનલ આન્સર કી(માસ્ટર પ્રશ્નપત્ર) ના પ્રશ્નક્રમાંક મુજબ અને તે સંદર્ભમાં રજૂ કરવા. માસ્ટર પ્રશ્નપત્રમાં નિર્દિષ્ટ પ્રશ્ન અને વિકલ્પ સિવાયના વાંધા ધ્યાને લેવામાં આવશે નહીં.

(6) ઉમેદવારે પ્રશ્નના વિકલ્પ પર વાંધો રજૂ કરેલ છે અને વિકલ્પ રૂપે જે જવાબ સૂચવેલ છે એ જવાબ ઉમેદવારે પોતાની ઉત્તરવહીમાં આપેલ હોવો જોઈએ. ઉમેદવારે સૂચવેલ જવાવ અને ઉત્તરવહીનો જવાબ ભિન્ન હશે તો ઉમેદવારે રજૂ કરેલ વાંધા ધ્યાને લેવાશે નહીં.

(7) વાંધા માટે સંદર્ભ જોડવો આવશ્યક છે, જેના વિના વાંધો ધ્યાને લેવામાં આવશે નહીં.

(8) વાંધો પ્રમાણભૂત અને અધિકૃત સંદર્ભો અથવા દસ્તાવેજી પુરાવાથી સમર્થિત હોવો આવશ્યક છે. માત્ર AI, GPT અથવા સમાન સાધનો દ્વારા જનરેટ કરાયેલ અને આધારભૂત પુરાવા વિનાના વાંધાઓની વિચારણા કરવામાં આવશે નહીં. ગણતરી આધારિત, ગાણિતિક, આંકડાશાસ્ત્રીય અથવા તાર્કિક પ્રશ્નોના કિસ્સામાં ઉમેદવારે સબંધિત ગણતરી, પદ્ધતિ અથવા તાર્કિક આધાર રજૂ કરવાનો રહેશે.

Website link for online objection submission system: https://www.formonline.co.in/GPSC_TRACK/SearchPage.aspx

Q 1. Energy flow through food chain is always:

A. Cyclic

B. Non-cyclic

C. semi-cyclic

D. Uni-directional and non-cyclic.

Q.2. In population ecology**,** what is the defining feature of exponential growth?

A. The growth rate is constant.

B. The growth rate increases rapidly over time.

C. The growth rate is very high.

D. It lasts indefinitely.

Q.3. The area, where two ecosystems overlap each other, is called:

A. Ecotype

B. Ecological niche

C. Ecotone

D. Edge line

Q.4. The relationship between the members of different species, in which one or both are harmed, is termed as:

A. mutualism

B. antagonism

C. commensalism

D. parasitism

Q.5. Net primary productivity is :

A. The mass of living plants per unit area in a community.

B. The difference between primary productivity and community respiratio0n.

C. The total rate of fixation of energy by photosynthesis.

D. The rate of production of biomass by heterotrophs.

Q.6. The ozone layer restricts:

A. Infrared radiation

B. X-rays and gamma rays

C. Visible light

D. Ultraviolet radiation

Q.7. Which of the following is important for the conservation of biodiversity?

A. National parks

B. Wild life sanctuary

C. Biosphere reserve

D. Botanical parks

Q.8. Two components of an ecosystem are :

A. Plants and animals

B. Trees and grasses

C. Animals and soil

D. Biotic and abiotic

Q. 9. Consider the following statements:

(1) Biodiversity means a large variety of flora and fauna on the earth.

(2) Biodiversity provides us valuable natural resources.
Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q.10. The main function of forests is:

A. To minimize pollution

B. To maintain natural balance

C. To preserve wild animals

D. To help in increasing rainfall

Q.11. Consider the following statements:

(1) Acid rain at pH4 is harmful.

(2) Acid rain at pH4 contains hydrochloric acid.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q.12. Manas Wildlife Sanctuary is situated in:

A. Uttar Pradesh

B. Assam

C. West Bengal

D. Madhya Pradesh

Q.13. The greatest amount of free energy is available at which of the following levels:

A. Producers

B. Decomposers

C. Secondary consumers

D. Tertiary consumers

Q.14. Which of the following is **NOT** an oceanic zone?

A. Euphotic zone

B. Bathyal zone

C. Continental shelf

D. Hadal zone

Q. 15. Which of the following does not increase the amount of carbon dioxide in carbon cycle on earth?

A. Photosynthesis

B. Respiration

C. Volcanic action

D. Decomposition of plants

Q.16. Sariska Tiger Reserve is located in:

A. West Bengal

B. Rajasthan

C. Orissa

D. Uttar Pradesh

Q.17 . In which of the following ecosystems, the pyramid of biomass is inverted?

A. Pond

B. Grassland

C. Forest

D. Desert

Q.18. Consider the following statements:

(1) Keoladeo National Park is situated in Hyderabad.

(2) Sukhna Wildlife Sanctuary is located in Chandigarh.
Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q.19. Consider the following statements :

(1) Allogenic succession occurs, where the environment is predominantly organic.

(2) Secondary ecological succession are more rapid as compared to primary succession.

(3) Autogenic succession begins in a predominantly inorganic environment.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q. 20. Which of the following air pollutants get dissolved in the haemoglobin of blood more rapidly than oxygen?

A. Carbon dioxide

B. Sulphur dioxide

C. Oxides of nitrogen

D. Carbon monoxide

Q.21. Which era is known as the "Age of mammals"?

A. Palaeozoic era

B. Mesozoic era

C. Coenozoic era

D. Archaeozoic era

Q.22. Consider the following statements:

(1) Biological clocks impose a kind of organizational structure on behaviour.

(2) Biological clocks are exogenous components of rhythmic behaviour.

(3) Biological clocks are endogenous components of rhythmic behaviour

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.23. Consider the following statements:

(1) Primate societies have distinct division of labour.

(2) The social grouping is based on the basis of rank relations.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q.24. Which of the following is the basis of Lamarckism?

A. Effect of metabolism

B. Effect of environment

C. Reduction of organ

D. Development of organ

Q.25. In genetics, 'Atavism' means:

A. Loss of some characters

B. Appearance of new characters

C. Change in existing characters

D. Re- appearance of ancestral characters

Q.26. Which of the following is **NOT** included In Darwin's theory of Natural Selection?

A. Variations

B. Adaptations

C. Mutations

D. Over production of members

Q.27. Altruistic behaviours between closely related animals are selected, because:

A. They increase the frequency of altruistic individual's genes in the next generation.

B. They ensure the survival of altruistic individual.

C. They reduce fighting between species.

D**.** One individual provides help to another and second one pays back the first one.

Q.28. Dominance hierarchies are most common when:

A. There is no parental care.

B. Males are larger than females.

C. Resources are uniformly distributed throughout the environment.

D. Resources are concentrated in one part of the environment.

Q.29. In which of the following fishes, males are involved in parental care of young ones ?

A. Platystacus

B. Hippocampus

C. Aspredo

D. Tilapia

Q.30. Catadromous fishes migrate from :

A. Sea to fresh water

B. Sea to estuary

C. Fresh water to sea

D. Estuary to sea.

Q.31. Power of young birds to return to their original place of their parent, show:

A. Instinct

B. Conditioned reflex

C. Intelligence

D. Intuition

Q.32. Which of the following is **NOT** a navigation mechanism in birds?

A. Magnetic cues

B. Gravity cues

C. Vision

D. Sun compass cues

Q.33. A male song bird sings and displays from the same tree branch each day, chasing away other males. This behaviour is an example of:

A. Migration

B. Territoriality

C. Habituation

D. Imprinting

Q.34. Honeybees perform “waggle dance” to inform hive mates about food sources. This is a form of:

A. Tactile communication

B. Chemical communication

C. Auditory communication

D. Symbolic dance communication

Q. 35. A chimpanzee remembers which fruiting trees were productive last season and returns to them. This is called:

A. Classical conditioning

B. Spatial memory

C. Instinctive behaviour

D. Fixed action pattern

Q.36. Male Red Deer roar and fight during breeding season to defend access to females. It represent :

A. Foraging territory

B. Home range

C. Mating territory

D. Aggression

Q.37. What triggers gull chicks to peck at the red spot, present on the beak of the parent?

A. Phylogeny

B. Ontogeny

C. Adaptive value

D. Sign stimulus

Q.38. Vampire bats share blood meals with roost-mates, who failed to feed. This is best explained by:

A. Kin selection

B. Reciprocal altruism

C. Group selection

D. Mutualism

Q.39. Homing pigeons on cloudy days can still find home but if their internal clock is shifted 6 hours, they orient 90^0 off. It indicates that they primarily use:

A. Magnetic field only

B. Landmarks only

C. Sun compass

D. Stellar navigation

Q.40. Salmon fish returns to spawn, from the ocean to the exact stream where they hatched. This behaviour relies on:

A. Visual landmarks

B. Magnetic field

C. Olfactory imprinting

D. Learning from adults

Q. 41. In mammals, bipolar nerve cells are found in :

A. Retina

B. Spinal cord

C. Cerebellum

D. Cochlea

Q.42. Cushing's disease is caused due to:

A**.** Hyper secretion of pituitary gland

B. Hyper secretion of adrenal gland

C. Hypo secretion of adrenal gland

D. Hypo secretion of pituitary gland

Q.43. Consider the following statements:

(1) The hormone is secreted from endocrine gland.

(2) The secretions are carried to specific parts of the body through the ducts.

(3) Deficiency and excess of hormone causes diseases.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.44. Major part of carbon dioxide is transported through the blood in which of the following ways:

A. It is bound to the haemoglobin.

B. It is dissolved in plasma.

C. As bicarbonate of sodium and potassium.

D. As carbonic acid.

Q.45. In which of the following systems of human body, Henle's loop is present?

A. Digestive system

B. Excretory system

C. Nervous system

D. Circulatory system

Q.46. The blood of which of the following groups can be given to a person with 'A' blood group:

A. O and A

B. O and AB

C. O and B

D. A and AB

Q.47. Which of the following hormone is secreted by ovary?

A. Testosterone

B. Insulin

C. Epinephrine

D. Estrogen

Q.48. Consider the following statements:

(1) Podocytes are the cells of bone marrow.

(2) Podocytes are the epithelial cells of Bowman's capsule.

(3) The cells of Islets of Langerhans are called podocytes.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.49. During the process of digestion, the raw starch present in the diet is digested by:

A. Salivary amylase only

B. Pancreatic amylase only .

C. Both salivary and pancreatic amylase

D. Lipase only

Q.50. Which of the following glands in human body is **NOT** an endocrine gland?

A. Adrenal

B. Lacrymal

C. Thyroid

D. Pituitary

Q.51. In man, the shape of which of the following is biconcave?

A. Red blood cells

B. White blood cells

C. Lens of eye

D. Tympanum

Q.52. Consider the following statements:

(1) Lymph does not contain protein and amino acids.

(2) Lymph nodes produce lymphocytes.

(3) Pathogens are collected and destroyed in lymph nodes.

Which of the statements given above is/are correct?

A. 1 and 3 only
B. 2 only.
C. 2 and 3 only
D. 1, 2 and 3.

Q.53. Consider the following statements:

(1). Myogenic heart is found in molluscs and vertebrates.

(2) Acetylcholine inhibits the heart beat of myogenic heart.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q. 54. Purkinje fibers are:

A. Muscle fibers

B. Connective tissue

C. Nerve fibers

D. Dendrites

Q. 55. The taste buds, stimulated by bitter taste are located:

A. On the tip of the tongue.

B. On the base of the tongue.

C. Along the edges of the tongue.

D. On the upper surface of the tongue.

Q.56. In excretory system, brush border lining is found in:

A. Collecting tubule

B. Distal convoluted tubule.

C. Proximal convoluted tubule.

D. Duct of Bellini

Q.57. Which of the following glands is responsible for calcium metabolism?

A. Thyroid

B. Parathyroid

C. Thymus

D. Adrenal

Q.58. Consider the following statements:

(1) Progesterone is a hormone, concerned with retention and growth of pregnancy.

(2) Progesterone is responsible for all the puberty changes.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q.59. Consider the following statements:

(1) Platelets are also called thrombocytes.

(2) Red blood cells are also called leucocytes.

(3) Leucocytes act as phagocytes.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3

Q. 60. In vertebrate animals, colour differentiation is done by:

A. Bipolar nerves of retina

B. Pigmented epithelium of retina

C. Rods of eye

D. Cones of eye

Q.61. Genes , which are situated on Y chromosome are called :

A. Polygenic genes

B. Holandric genes

C. Pleiotropic genes

D. Basic genes

Q.62. "Albinism" occurs due to one of the following reasons:

A. Disorders of Pituitary gland only.

B. Genetic disorders only.

C. Lack of melanin only.

D. Both genetic disorders and lack of melanin.

Q. 63. Barr bodies, found in human beings are associated with :

A. Female sex chromosome

B. Male sex chromosomes

C. Female autosomes

D. Male autosomes

Q. 64. Which of the following is **NOT** a part of reproductive system in human beings?

A. Vas deferens

B. Ovary

C. Fallopian tube

D. Uterus

Q.65. Change in the base sequence within the gene is called:

A. Mutation

B. Cloning

C. Breeding

D. Fusion

Q.66. The phenomenon in which, a single gene influences more than one trait, is called:

A. Polyploidy

B. Pleiotropy

C. Poly-dactyly

D. Penetrance

Q.67. Kleinfelter syndrome is caused due to the presence of :

A. XYY chromosomes

B. XXY chromosomes

C. XO chromosomes

D. YY chromosomes

Q.68. During genetic induction, repressor is synthesized from:

A. Promotor gene

B. Operator gene

C. Regulator gene

D. Structural gene

Q.69. Which of the following does **NOT** occur during the mechanism of crossing over of chromosomes?

A. Synapsis

B. Duplication of chromosomes

C. Terminalization

D. Transmission

Q.70. Consider the following statements:

(1) Complete linkage is found in females of *Drosophila.*

(2) In the coupling phase of linkage, both the linked genes have their dominant alleles in one chromosome and recessive alleles in the other chromosome.

(3) Incomplete linkage is found in males of *Drosophila.*

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3

Q. 71. What does the "brush like" appearance of lampbrush chromosomes represent?

A. Condensed heterochromatin regions

B. Loops of DNA with intense RNA transcription activity.

C. Sites of DNA replication origins

D. Paired homologous chromosomes undergoing crossing over.

Q.72. Spliceosome, a complex of snRNA , protein and pre-RNA is found in :

A. Prokaryotic cell

B. Plant cell

C. Eukaryotic cell

D. Both eukaryotic and prokaryotic cell

Q.73. Turner's syndrome in human is caused by:

A. Polyploidy

B. Autosomal aneuploidy

C. Point mutation

D. Sex – chromosome aneuploidy

Q.74. Consider the following statements:

(1). Classical Mendelian traits are qualitative in nature.

(2).Qualitative traits are polygenic traits.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q.75. Multiple allelism controls the inheritance of :

A. Colour blindness

B. Sickle- cell anaemia

C. Blood group

D. Phenylketonuria

Q. 76. Chromosomal abnormality of an unborn baby can be found out by:

A. CAT scanning

B. Ultrasound

C. Tissue culture

D. Amniocentesis

Q.77. Mendilian recombination is due to :

A. Independent assortment of genes

B. Linkage of genes

C. Mutation

D. Dominance

Q.78. When linked characters or genes are inherited together through two or more generations, it is called:

A. Consistent linkage

B. Complete linkage

C. Continuous linkage

d. Incomplete linkage

Q.79. In human beings, which of the following is **NOT** a sex linked disease, inherited through X chromosome?

A. Haemophilia

B. Distichiasis

C. Mitral stenosis

D. Pattern baldness

Q.80. Consider the following statements:

(1). Transversional mutations are more harmful than transitional mutations.

(2) Missense mutations are more deleterious than nonsense mutations.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q.81. In genetic code, a code represents:

A. A set of two bases in DNA segment

B. A set of three bases in DNA segment

C. A set of four bases in DNA segment

D. A set of six bases in DNA segment

Q.82. With reference to the 'complimentary base pairing', in a DNA molecule, consider the following statements:

(1) Purine pairs with purine.

(2) Adenine pairs with Thymine.

(3) Guanine pairs with Cytosine.

Which of the statements given above is/are correct?

A. 2 and 3 only

B. 2 only.

C. 1 and 3 only

D. 1, 2 and 3.

Q.83. Replication of DNA does not require:

A. DNA polymerase

B. Ligase

C. DNAse

D. RNA polymerase

Q.84. The enzyme that cleaves double stranded DNA at specific sites is called:

A. Exonuclease

B. Endonuclease

C. Ligase

D. Restriction endonuclease

Q.85. In which stage and cell type are lampbrush chromosomes typically observed? :

A. Interphase of somatic cells

B. Metaphase of mitosis in plant cells

C. Diplotene stage of meiosis I in oocytes.

D. Anaphase of meiosis II in spermatocytes.

Q.86. The cytological event, that corresponds to Mendel's law of independent assortment is visible in:

A. Anaphase I

B. Anaphase II

C. Metaphase I

D. Metaphase II

Q.87.Which of the following Isotopes are used for proving semi conservative replication of DNA?

A. C^{14} and P^{31}

B. N^{14} and P^{31}

C. N^{14} and N^{15}

D. N^{14} and C^{14}

Q.88. Consider the following statements:

(1) DNA polymerase I requires a template and a primer to polymerize deoxyribonucleoside monophosphates.

(2) DNA polymerase I produces Okazaki fragments linked to RNA primer chains.
Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q. 89. Splicing of pre-mRNA:

A. Is self catalyzed process

B. Involves snRNP.

C. Is similar to pre- tRNA intron splicing

D. Is associated with prokaryotic cell.

Q.90. What is the function of initiation factor IF-3?

A. If bound to the 30S subunit, it prevents the association of the 30S and 50S subunits.

B. If bound to the 40S subunit, it facilitates the association of the 40S and 60S subunits.

C. It directs the initiator tRNA to enter the partial P-site on the30S subunit bound to mRNA.

D. If bound to the 30S subunit, it allows the 16S rRNA of the 30S subunit to interact with the Shine – Delgarmo sequence of mRNA.

Q.91. Which of the following is the optimum size of antigen peptide for recognition by MHC Class I molecule?

A. 50-100 amino acids

B. 20-25 amino acids

C. 8-10 amino acids

D. Dipeptides

Q. 92. Consider the following statements:

(1) In mammalian cells, RNA editing can change the coding capacity of a gene after transcription.

(2) In mammalian cells, RNA editing usually makes many changes in each mRNA.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q.93. In the protein synthesis, t RNA carrying the initiating amino acid enters in which site of ribosome?

A. Anticodon site

B. 'A' site

C. 'P' site

D. Recognition site

Q.94. Any DNA molecule, that has the ability to replicate autonomously is called:

A. Replicon

B. Genome

C. Chromosome

D. Plasmid

Q.95. With reference to the 'heterochromatin' consider the following statements:

(1) Heterochromatin is associated with tight folding and coiling of the chromosome fiber.

(2) The DNA of heterochromatin is genetically active.

(3) Heterochromatin controls the metabolism of the chromosome.

Which of the statements given above is/are correct?

A. 2 and 3 only

B. 2 only.

C. 1 and 3 only

D. 1, 2 and 3.

Q. 96. In mammalian testes, androgens are produced by:

A. Spermatocytes

B. Spermatogonia

C. Interstitial cells

D. Sertoli cells

Q. 97. Which of the following hormone is involved in the metamorphosis of tadpole larva of frog?

A. Somatotropin

B. Thyroxine

C. Ecdysone

D. Juvenile hormone

Q.98.The acrosome of the sperm is formed by which of the following cell organelle?

A. Centriole

B. Golgi body

C. Mitochondria

D. Ribosomes

Q.99. In animals, the function of fertilization membrane is :

A. To prevent the entry of late arriving spermatozoa.

B. To protect the egg.

C. To protect the sperm.

D. To help in the fusion of egg and sperm.

Q.100. Which of the following animals never regenerate?

A. Hydra

B. Leech

C. Planaria

D. Newt

Q.101. Alecithal or Oligolecithal eggs are found in which of the following animals?

A. Frog

B. Chick

C. Reptiles

D. Eutherian mammals

Q.102. Discoidal meroblastic cleavage is found in :

A. Amphibians

B. Mammals

C. Amphioxus

D. Birds

Q. 103. The initial dorsal ventral axis in amphibian embryo is determined by :

A. Gravity

B. Genetic difference in the cell

C. The point of sperm entry.

D. The point of contact with the uterus.

Q.104. Which kind of cleavage is found in mammals?

A. Holoblastic radial

B. Holoblastic rotational

C. Meroblastic radial

D. Meroblastic rotational

Q. 105. Vitelline membrane is:

A. Quaternary egg membrane

B. Tertiary egg membrane

C. Secondary egg membrane

D. Primary egg membrane

Q. 106. The metabolic reactions of the fertilized egg become activated by the formation of:

A. ATP

B. Cyclic AMP

C. Cyclic GMP

D. Creatine phosphate

Q. 107. In some animals cleavages follow a precise pattern and each blastomere has its characteristic position and fate. Such cleavages are called as:

A. Determinate

B. Indeterminate

C. Totipotent

D. Superficial

Q. 108. The central mass of blastomeres lying above the subgerminal cavity is small and free from yolk,

constitutes:

A. Area opaca

B. Area pellucida

C. Epiblast

D. Periblast

Q. 109. During gastrulation, the embolic morphogenetic movements are concerned with inward migration of prospective:

A. Chorda- mesodermal cells

B. Ectodermal cells

C. Endodermal cells

D. Chorda- mesodermal and endodermal cells

Q.110. Destructive metabolic stage in regeneration is:

A. Anabolic

B. Catabolic

C. Respiratory

D. Excretory

Q. 111. The lens and retina of vertebrate eye develop from:

A. Ectoderm

B. Endoderm

C. Mesoderm

D. Partly from ectoderm and partly from endoderm

Q. 112. With reference to the 'primitive streak of chick', consider the following statements:

(1) The formation of primitive streak involves the migration of periblast cells.

(2) Primitive streak initiates the conclusive embolic movements of gastrulation.

(3) It develops in the epiblast about eight hours of incubation in the chick.

Which of the statements given above is/are correct?

A. 2 and 3 only

B. 2 only.

C. 1 and 3 only

D.1,2 and 3 .

Q.113. During metamorphosis, the visual pigments of tadpoles, shift to the use of :

A. Carotene

B. Rhodopsin

C. Porphyropsin

D. Iodopsins

Q. 114. With reference to embryonic mesenchyme cells, consider the following statements:

(1) In the early stages of development, mesenchyme cells undergo amoeboid movement.

(2) They are predominantly ectodermal in origin.

(3) They are packing tissue of the early embryo.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3

Q.115. A group of undifferentiated cells, which acts as a source material for specialized tissues, is called:

A. Blastemma

B. Epidermal cells

C. Stem cells

D. Pluripotent mesenchymal cells

Q.116. Reduction of the gills and tail in amphibian tadpole during metamorphosis is affected by:

A. Autolysis

B. Histolysis

C. Necrosis

D. Degeneration

Q. 117. Order Dipnoi of Superclass Pisces includes:

A. Lung fishes

B. Cat fishes

C. Pipe fishes

D. Cave fishes

Q.118. Who proposed binomial system of nomenclature?

A. Mendel

B. Darwin

C. Pasteur

D. Linnaeus

Q.119. When different scientists give different names to the same species, in such cases:

A. First name is considered right.

B .Last name is considered right.

C. All these names are cancelled and a new name is given.

D. Any name of choice can be considered.

Q.120. In classification, a taxon can be explained as :

A. A group of similar species.

B. A group of similar genera.

C. A group of rank of organisms.

D. A group of organisms based on chromosome number.

Q. 121. Radial symmetry is most common in:

A. Animals with creeping mode of life.

B. Sessile and sedentary animals.

C. Animals with controlled mobility.

D. Animals, whose bodies lack an axis and have a form of a sphere.

Q.122. Which of the following does not belong to the triploblastic eumetazoa group:

A. Haemocoelomate

B. Acoelomate

C. Blastocoelomate

D. Eucoelomate

Q.123. The largest unit, within which gene flow can readily occur is :

A. Population

B. Phylum

C. Species

D. Genus

Q.124. In ciliates, the process that produces genetic variation through the exchange of nuclei is :

A. Meiosis

B. Mixotrophy

C. conjugation

D. Endosymbiosis

Q. 125. Vertebrates and tunicates share following characteristics :

A. A high degree of cephalization.

B. Jaws adapted for feeding.

C. The formation of structures from the neural crest.

D. A notochord and a dorsal tubular nerve cord.

Q.126. A taxonomic system based on all phenotypic similarities, equally weighted and without regard to evolutionary relationships is called:

A. Cladistics

B. Phenetics

C. Phylogeny

D. Classical evolutionary taxonomy

Q.127. With reference to the "members of phylum Cnidaria", consider the following statements:

(1) They are not capable of locomotion because they lack true muscle tissue.

(2)They have a gastro- vascular cavit , which serves as a gut and circulatory system.

(3) All cnidarians have unique stinging organs, called nematocysts.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.128. Which of the following is **NOT** a characteristic of arthropods?

A. Bilateral symmetry

B. Lacking of true nephridia and cilia.

C. Occurrence of moulting or ecdysis .

D. A closed circulatory system.

Q.129. The physical similarity of body shape in dolphin, shark and penguin results from:

A. Geographic evolution

B. Convergent evolution

C. Parallel evolution

D. A property of a common ancestor

Q.130. Homology in anatomical parts helps in determining evolutionary kinship because :

A. They have common embryological origin

B. They display evolutionary adaptations

C. They undergo similar genetic changes.

D. Homologous body parts invariably perform similar functions**.**

Q.131. Consider the following statements about speciation:

(1)The goal of natural selection is speciation.

(2) Speciation is a basis for understanding macroevolution.

(3) Natural selection chooses the reproductive barriers for populations.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.132. Which of the following is the characteristic of Allopatric Speciation

A. Geographic isolation

B. Isolation through adaptation of alleles

C. Large populations

D. Asexually reproducing populations

Q.133. Which of the following biochemical reactions is most commonly utilized by living cells for intracellular signals:

A. Phosphorylation

B. Methylation

C. Acylation

D. Decarboxylation

Q.134. Which of the following is involved in cell signaling process?

A. Zinc fingers

B. Cytochrome P450

C. Protein kinase C

D. Tyrosine kinase

Q.135. In newborn infants, hemolytic disease can be prevented by which of the following:

A. Administration of anti-RH antibodies

B. Administration of allergy shots

C. Administration of specific allergens

D. Administration of antihistamines

Q. 136. All of the following cell types contain active telomerase enzyme, except:

A. Cancer cells

B. Immune cells

C. Somatic cells

D. Germinal cells

Q.137. Globin genes are:

A. The genes that code for globin proteins.

B. Organized into a single cluster

C. All expressed simultaneously

D. Organized differently in all higher eukaryotes

Q.138. Which of the following inhibit replication of virus into host?

A. Proteases

B. C3 convertase

C. Type I interferons

D. Phospholipase C.

Q. 139. Which of the following cells produce secretory antibodies ?

A. Plasmocytes

B. B- lymphocytes

C. T- lymphocytes

D. Pro-B lymphocytes

Q.140. J chain or joining chain is found i :

A. IgA

B. IgA and IgM

C. IgD

D. IgE

Q.141. Tuberculin skin test is an example of :

A. Allergic reaction

B. Precipitation reaction

C. Type IV hypersensitivity reaction

D. Acute serum sickness

Q.142. Which of the following disease is **NOT** an autoimmune disease?

A. Grave's disease

B. Bovine spongiform encephalitis

C. Rheumatoid arthritis

D. Systemic Lupus Erythematosus (SLE)

Q.143. With reference to 'monoclonal antibody', consider the following statements :

(1) It can bind to multiple epitopes on the antigen.

(2) It recognizes a single epitope on the antigen.

(3) Its affinity towards the antigen is very high as compared to polyclonal antibody.

Which of the statements given above is/are correct?

A. 1 and 3 only
B. 2 only.
C. 2 and 3 only
D. 1, 2 and 3.

Q.144. Deficiency of which of the following heavy metals, leads to immunodeficiency?

A. Iron

B. Calcium

C. Zinc

D. Magnesium

Q. 145. Which of the following are active in innate immuniuty without any gene rearrangement ?

A. CD8 cell

B. CD 4 cell

C. B- cells

D. NK cells

Q.146. In addition to T and B cells, another distinct lymphocyte cell present, is called as :

A. Astrocytes

B. Dendritic cell

C. Langerhan's cell

D. MHC molecules

Q.147. B -cells are activated by which of the following:

A. By signal transduction

B. By hydrolysis of compliment protein

C. Cross linking of surface antibody

D. By changes in intracellular calcium

Q.148.The cyclosporine A is:

A. Immunosuppressive

B. Immunomodulatory

C. immunuregulatory

D. Immunotherapeutic

Q. 149. Most abundant lipid in plasma membrane is :

A. Glycolipids

B. Phospholipids

C. Cholesterol

D. Sterol

Q.150. When an ion or solute is moved against a concentration gradient using energy, the process is called :

A. Transport

B. Diffusion

C. Active transport

D. Regulated diffusion

Q.151. Which of the following is the function of endoplasmic reticulum?

A. Excretion

B. Digestion

C. Protein synthesis

D. Respiration

Q.152. Cytoplasm and nucleus are separated by a membrane called, nuclear membrane, which is:

A. Single layered

B. Double layered

C. Triple layered

D. Multi layered

Q.153. Which of the following event occurs in the ribosome of the cell?

A. Photosynthesis

b. Protein synthesis

c. Fat synthesis

D. Glucose synthesis

Q. 154. Consider the following statements:

(1) In animals, Golgi apparatus is involved in the formation of cell organelles.

(2) In animals, it is involved in the synthesis of lipids.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q. 155. Consider the following statements:

(1) Membranes consist of cholesterol and proteins only.

(2) Phospholipids and proteins are the main components of biological membranes.

(3) All membrane proteins are glycoproteins.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q. 156. Receptor mediated endocytosis from plasma membrane requires which of the following coat proteins?

A. SNARE

B. Arrestin

C. Glycophorin

D. Clathrin

Q.157. Which of the following does not occur in the prophase I of Meiosis?

A. Chromosome condensation

B. Segregation

C. Pairing of homologs

D. Chiasma formation

Q. 158. Mitochondria are found in:

A. All bacteria
B. The nucleus of prokaryotic cells
C. All eukaryotic cells
D. All prokaryotic cells

Q. 159. Who described the nucleus of the cell for the first time?

A. Robert Brown

B. Robert Hooke

C. Robert Remak

D. F. Fontana

Q. 160. Consider the following statements:

(1) Peroxisomes are present in all photosynthetic cells of higher plants.

(2) They are not found in Protozoa, brown algae and fungi.

(3) Peroxisomes are found to perform hydrogen peroxide metabolism and photorespiration.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.161. Consider the following statements:

(1). The chloroplasts does not contain carbohydrates and proteins.

(2) The chloroplasts contain some metallic atoms : Fe, Cu, Mn and Zn.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2.

Q.162. With reference to microtubules, consider the following statements :

(1) Microtubules do not occur in cilia and flagella of animal and plant cells.

(2) High densities of microtubules are found in axons and dendrites of nerve cells.

(3) Microtubules are made up of a protein, called tubulin.

Which of the statements given above is/are correct?

A. 2 and 3 only

B. 2 only.

C. 1 and 3 only

D. 1, 2 and 3

Q.163. According to the position of the centromere , telocentric chromosomes are :

A. J- or L- shaped chromosomes.

B. V- shaped chromosomes.

C. Rod like chromosomes, having centromere at the proximal end.

D. Rod like chromosomes, having centromere at one end, giving one very short and one very long arm.

Q.164. Which one of the following is **NOT** a synonym of the jumping gene?

A. Transposon

B. Insertion sequence element

C. Transposable genetic element

D. Intervening sequence

Q.165. In Acquired immunodeficiency syndrome the clinical deterioration is because of loss of:

A. Microphages

B. Macrophages

C. CD4 cells

D. B-cells

Q.166. Night blindness is caused by the deficiency of:

A. Vitamin B

B. Vitamin A

C. Vitamin K

D. Vitamin C

Q. 167. Which of the following is the most powerful buffer system of blood?

A. Bicarbonate

B. Phosphate

C. Proteins

D. Haemoglobin

Q. 168. Thyroxine and triiodothyronine, produced by the thyroid glan , are synthesized from iodine and:

A. Cholesterol

B. Phenylalanine

C. Glycoprotein

D. Tyrosine

Q. 169. Which of these cells are formed in the thymus gland of new born baby :

A. B- lymphocytes

B. T- lymphocytes

C. Monocytes

D. Thrombocytes

Q. 170. Which of the following vitamins is mainly responsible for blood coagulation in human beings ?

A. Vitamin K

B. Vitamin E

C. Vitamin A

D. Vitamin C

Q.171. Consider the following statements:

(1) Night blindness occurs in old persons not in young ones.

(2) Colour blindness occurs more in males than in females.

(3) Colour blindness occurs due to the deficiency of vitamin E.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.172. Macromolecules enter the plasma membrane of the cell by the process of :

A. Facilitated diffusion

B. Osmosis

C. Exocytosis

D. Endocytosis

Q. 173 . Microtubules are made up of:

A. Actin

B. Fibrin

C. Tubulin

D. Myosin

Q.174. Which of the following vitamins functions both as visual pigment and hormone ?

A. Folic acid

B. Riboflavin

C. Thiamine

D. Retinal

Q. 175. Which of the following hormone controls the concentration of urine in human beings ?

A. Secretin
B. Serotonin

C. Vasopressin

D. Thyroxine

Q. 176. In embryonic stage of human, RBCs develop in :

A. Liver and spleen

B. Liver and kidney

C. Liver and pancreas

D. Kidney and spleen

Q.177. What is Bioremediation?

A. Use of living organisms to degrade environmental pollutants

B. Increase in the number of organisms

C. Collection of data of endangered species of animals and plants.

D. Study of organisms in its habitat.

Q.178. Bt cotton contains a gene from *Bacillus thuringiensis,* that codes for :

A. Delayed ripening

B. Nitrogen fixation ability

C. Proteinaceous toxin for lepidopteran insects

D. Herbicide resistance

Q. 179. "Knockout mice" are transgenic animals, where a specific gene has been:

A. Over expressed

B. Inserted from other species

C. Duplicated

D. Targeted disruption of an endogenous gene.

Q.180. Which of the following statement is correct?

A. T- lymphocytes are conditioned by bone marrow

B. T- cells do not produce cytokines.

C. B- lymphocytes are conditioned by thymus

D. B- cells produce plasma and memory cells.

Q.181. A major ethical concern with transgenic farm animals is :

A. Decreased milk/meat production

B. Inability to patent the animal.

C. Animal welfare issues due to unintended health problems.

D. Increased genetic diversity in wild populations.

Q.182. Consider the following statements:

(1) The basis of bioremediation is the natural capacity of microorganisms to degrade organic compounds.

(2) Bioremediation can clean up any pollutant including heavy metals.

(3) Bioremediation has global, regional and local application.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.183. Which of the following pollutants can be removed by phytoremediation?

A. Radioactive waste

B. Heavy metals

C. Plastic waste

D. Both radioactive waste and heavy metals

Q.184. Flouride is an inhibitor of Glycolysis. It inhibits the glycolytic enzyme:

A. Phosphofructokinase

B. Enolase

C. Glucokinase

D. Lactate dehydrogenase

Q.185. Phytoremediation technique uses specific plants , called hyperaccumulators. Which of the following is **NOT** a hyperaccumulator plant?

A. Sunflowers

B. Corn

C. Alpine pennycress

D. Chamomile

Q.186. Consider the following statements:

(1) Potentiometric Biosensors use piezoelectric materials.

(2) Main components of a biosensor are : Sensor, Transducer, Amplifier, Processor, Display unit.

(3) In biosensors, transducers convert the biochemical activity into electrical energy.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q .187. Consider the following statements :

(1) Biosensor can detect molecules with high selectivity.

(2) Biosensor works on the principle of molecular recognition.

(3) Biosensors are used in the fields of biotechnology, medicine, food industry and environmental monitoring.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.188. Consider the following statements :

(1) Ewing Sarcoma refers to rare cancerous tumors in the bones and soft tissues.

(2) It typically affects people between the ages 20-40 years.

Which of the statements given above is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2.

Q.189. With reference to the ‘ hantavirus’ consider the following statements :

(1) This virus can pose the same broad outbreak risk as SARS or COVID -19.

(2) Hantavirus mainly spreads via inhalation of contaminated particles from the urine, faeces or saliva of infected rodents.

(3)This virus is primarily found in South America.

Which of the statements given above is/are correct?

A. 2 and 3 only

B. 2 only.

C. 1 and 3 only

D. 1, 2 and 3.

Q. 190. Consider the following statements:

(1) The theme for “World Migratory Day-2026’ was ‘Protect insects, Protect Birds’.

(2) ‘World Migratory Bird Day’ has been observed on 9th May, 2026.

(3) This is an awareness – raising campaign highlighting the need for the conservation of migratory birds and their habitats.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q. 191. A multiple cloning site:

A. Allows flexibility in the choice of restriction enzymes for cloning.

B. Allows flexibility in the choice of organisms for cloning .

C. Contains many copies of a cloned gene.

D. Contains many copies of the same restriction enzyme site.

Q.192. Consider the following statements:

(1) Cosmids can be used to clone DNA of 30-40 kb.

(2) Cosmids produce plaques.

(3) Cosmids are hybrids between phage DNA and bacterial plasmid.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q. 193. Which of the following is not component of yeast artificial chromosome?

A. Centromere

B. Origin of replication

C. Cos site

D. Telomere

Q. 194. BAC , which is used to clone large DNA fragments, is derived from :

A. Mu phage

B. 2 μ plasmid

C. F plasmid

D. CoIE plasmid

Q.195. . Consider the following statements:

(1) Northern blotting technique is used to study RNA.

(2) Southern blotting technique is used to study DNA, RNA and proteins.

(3) Western blotting technique is used for proteins.

Which of the statements given above is/are correct?

A. 1 and 3 only

B. 2 only.

C. 2 and 3 only

D. 1, 2 and 3.

Q.196. Consider the following statements:

(1) The ELISA technique depends on an immunosorbent.

(2) ELISA is a specific test for identifying HIV causing AIDS disease.

Which of the statements given above is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2.

Q. 197. Consider the following statements:

(1) Protein crystallography is the youngest branch of X-ray crystallography.

(2) Protein crystallography started in the year 1930.

(3) Bernal took the first X-ray diffraction picture of a protein crystal.

Which of the statements given above is/are correct?

A. 2 and 3 only

B. 2 only.

C. 1 and 3 only

D. 1, 2 and 3

Q.198. Which of the following technique is used to detect very small fraction of drugs, vitamins, hormones?

A. Western blot

B. Precipitation

C. Double diffusion

D. Radioimmunoassay

Q.199. Which of the following is **NOT** a type of ELISA assay?

A. Indirect ELISA

B. Direct ELISA

C. Sandwitch ELISA

D. Competitive ELISA

Q. 200. The presence of a plasmid in a bacterial culture is usually determined by:

A. Growth in the presence of an antibiotic.

B. Blue – white screening.

c. Agarose gel electrophoresis.

D. A restriction enzyme digests.