NEET(UG)-2018 TEST PAPER WITH ANSWER (HELD ON SUNDAY 06th MAY, 2018)

BIOLOGY

- **91.** The experimental proof for semiconservative replication of DNA was first shown in a
 - (1) Fungus
- (2) Bacterium
- (3) Plant
- (4) Virus

- Ans. (2)
- 92. Select the correct statement :
 - (1) Franklin Stahl coined the term "linkage".
 - (2) Punnett square was developed by a British scientist.
 - (3) Spliceosomes take part in translation.
 - (4) Transduction was discovered by S. Altman.
- Ans. (2)
- **93.** Offsets are produced by
 - (1) Meiotic divisions
- (2) Mitotic divisions
- (3) Parthenocarpy
- (4) Parthenogenesis

- Ans. (2)
- **94.** Which of the following pairs in *wrongly* matched?
 - (1) Starch synthesis in pea : Multiple alleles
 - (2) ABO blood grouping : Co-dominance
 - (3) XO type sex determination: Grasshopper
 - (4) T.H. Morgan
- : Linkage

- Ans. (1)
- **95.** Which of the following flowers only once in its life-time?
 - (1) Bamboo species
- (2) Jackfruit
- (3) Mango
- (4) Papaya

- Ans. (1)
- **96.** Select the **correct** match :
 - (1) Alec Jeffreys
- Streptococcus
 - pneumoniae
- (2) Alfred Hershey and TMV Martha Chase
- (3) Matthew Meselson *Pisum sativum* and F. Stahl
- (4) Francois Jacob and Lac operon Jacques Monod
- Ans. (4)

- **97.** Which of the following has proved helpful in preserving pollen as fossils?
 - (1) Pollenkitt
- (2) Cellulosic intine
- (3) Oil content
- (4) Sporopollenin

- Ans. (4)
- 98. Stomatal movement is not affected by
 - (1) Temperature
- (2) Light
- (3) O₂ concentration
- (4) CO₂ concentration

- Ans. (3)
- **99.** The stage during which separation of the paired homologous chromosomes begins is
 - (1) Pachytene
- (2) Diplotene
- (3) Diakinesis
- (4) Zygotene

- Ans. (2)
- 100. The two functional groups characteristic of sugars are
 - (1) hydroxyl and methyl
 - (2) carbonyl and methyl
 - (3) carbonyl and phosphate
 - (4) carbonyl and hydroxyl
- Ans. (4)
- **101.** Which of the following is **not** a product of light reaction of photosynthesis?
 - (1) ATP
- (2) NADH
- (3) NADPH
- (4) Oxygen

- Ans. (2)
- 102. Stomata in grass leaf are
 - (1) Dumb-bell shaped
- (2) Kidney shaped
- (3) Rectangular
- (4) Barrel shaped

- Ans. (1)
- **103.** Which among the following is **not** a prokaryote?
 - (1) Saccharomyces
- (2) Mycobacterium
- (3) Nostoc
- (4) Oscillatoria

- Ans. (1)
- **104.** Which of the following is true for nucleolus?
 - (1) Larger nucleoli are present in dividing cells.
 - (2) It is a membrane-bound structure.
 - (3) It takes part in spindle formation.
 - (4) It is a site for active ribosomal RNA synthesis.
- Ans. (4)

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- **105.** The Golgi complex participates in
 - (1) Fatty acid breakdown
 - (2) Formation of secretory vesicles
 - (3) Respiration in bacteria
 - (4) Activation of amino acid

Ans. (2)

- **106.** In stratosphere, which of the following element acts as a catalyst in degradation of ozone a release of molecular oxygen?
 - (1) Carbon

(2) Cl

(3) Fe

(4) Oxygen

Ans. (2)

- **107.** Which of the following is a secondary pollutant
 - (1) CO

(2) CO₂

(3) SO₂

(4) O_3

Ans. (4)

108. Niche is

- (1) all the biological factors in the organism environment
- (2) the physical space where an organism live
- (3) the range of temperature that the organism needs to live
- (4) the functional role played by the organism where it lives

Ans. (4)

- **109.** Natality refers to
 - (1) Death rate
 - (2) Birth rate
 - (3) Number of individuals leaving the habitat
 - (4) Number of individuals entering a habitat

Ans. (2)

110. What type of ecological pyramid would obtained with the following data?

Secondary consumer: 120 g

Primary consumer: 60 g

Primary producer: 10 g

- (1) Inverted pyramid of biomass
- (2) Pyramid of energy
- (3) Upright pyramid of numbers
- (4) Upright pyramid of biomass

Ans. (1)

- 111. World Ozone Day is celebrated on
 - (1) 5th June

(2) 21st April

(3) 16th September (4) 22nd April

Ans. (3)

- **112.** Which of the following is commonly used as a vector for introducing a DNA fragment in human lymphocytes?
 - (1) Retrovirus

(2) Ti plasmid

(3) λ phage

(4) pBR 322

Ans. (1)

- **113.** In India, the organisation responsible for assessing the safety of introducing genetically modified organisms for public use is
 - (1) Indian Council of Medical Research (ICMR)
 - (2) Council for Scientific and Industrial Research (CSIR)
 - (3) Research Committee on Genetic Manipulation (RCGM)
 - (4) Genetic Engineering Appraisal Committee (GEAC)

Ans. (4)

- **114.** A 'new variety of rice was patented by a foreign company though such varieties have been present in India for a long time. This is related to
 - (1) Co-667

(2) Sharbati Sonora

(3) Lerma Rojo

(4) Basmati

Ans. (4)

- 115. Select the correct Match:
 - (1) Ribozyme

- Nucleic acid

- (2) F₂ × Recessive parent Dihybrid cross
- (3) T.H. Morgan

- Transduction

(4) G. Mendel

- Transformation

Ans. (1)

- 116. Use of bioresources by multinational companies and organisations without authorisation from the concerned country and its peoople is called
 - (1) Bio-infringement

(2) Biopiracy

(3) Biodegradation

(4) Bioexploitation

Ans. (2)

- **117.** The correct order of steps in Polymerase Chain Reaction (PCR) is
 - (1) Extension, Denaturation, Annealing
 - (2) Annealing, Extension, Denaturation
 - (3) Denaturation, Extension, Annealing
 - (4) Denaturation, Annealing, Extension

Ans. (4)

- 118. Secondary xylem and phloem in dicot stem are produced by
 - (1) Apical meristems
- (2) Vascular cambium
- (3) Phellogen
- (4) Axillary meristems

Ans. (2)

- **119.** Pneumatophores occur in
 - (1) Halophytes
 - (2) Free-floating hydrophytes
 - (3) Carnivorous plants
 - (4) Submerged hydrophytes
- Ans. (1)
- 120. Sweet potato is a modified
 - (1) Stem
- (2) Adventitious root
- (3) Tap root
- (4) Rhizome

- Ans. (2)
- **121.** Which of the following statement is **correct**?
 - Ovules are not enclosed by ovary wall in gymnosperms
 - (2) Selaginella is heterosporous, while Salvinia is homosporous
 - (3) Horsetails are gymnosperms
 - (4) Stems are usually unbranched in both *Cycas* and *Cedrus*
- Ans. (1)
- **122.** Select the **wrong** statement :
 - (1) Cell wall is present in members of Fungi and Plantae
 - (2) Mushrooms belong to Basidiomycetes
 - (3) Pseudopodia are locomotory and feeding structures in Sporozoans
 - (4) Mitochondria are the powerhouse of the cell in all kingdoms except Monera
- Ans. (3)
- **123.** Casparian strips occur in
 - (1) Epidermis
- (2) Pericycle
- (3) Cortex
- (4) Endodermis

- Ans. (4)
- 124. Plants having little or no secondary growth are
 - (1) Grasses
 - (2) Deciduous angiosperms
 - (3) Conifers
 - (4) Cycads
- Ans. (1)
- 125. Which one is wrongly matched?
 - (1) Uniflagellate gametes Polysiphonia
 - (2) Biflagellate zoospores Brown algae
 - (3) Gemma cups
- Marchantia
- (4) Unicellular organism Chlorella
- Ans. (1)

126. Match the items given in Column I with those in Column II and select the correct option given below:-

Column-I

Column-II

- (a) Herbarium
- It is a place having a collection of preserved plants and animals.
- (b) Key
- ii. A list that enumerates methodically all the species found in an area with brief description aiding identification.
- (c) Museum
- iii. Is a place where dried and pressed plant specimens mounted on sheets are kept.
- (d) Catalogue
- iv. A booklet containing a list of characters and their alternates which are helpful in identification of various taxa.

	a	b	c	d
(1)	i	iv	iii	ii
(2)	iii	ii	i	iv
(3)	ii	iv	iii	i
(4)	iii	iv	i	ii

- Ans. (4)
- 127. Winged pollen grains are present in
 - (1) Mustard
- (2) Cycas
- (3) Mango
- (4) Pinus

- Ans. (4)
- **128.** After karyogamy followed by meiosis, spores are produced exogenously in
 - (1) Neurospora
- (2) Alternaria
- (3) Agaricus
- (4) Saccharomyces

- Ans. (3)
- **129.** What is the role of NAD⁺ in cellular respiration?
 - (1) It functions as an enzymes
 - (2) It functions as an electron carrier
 - (3) It is a nucleotide source for ATP synthesis
 - (4) It is the final electron acceptor for anaerobic respiration
- Ans. (2)

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- **130.** Oxygen is **not** produced during photosynthesis by
 - (1) Green sulphur bacteria
 - (2) Nostoc
 - (3) Cycas
 - (4) Chara

Ans. (1)

- 131. Pollen grains can be stored for several years in liquid nitrogen having a temperature of
 - (1) −120°C
- (2) -80°C
- (3) −196°C
- (4) -160°C

Ans. (3)

- **132.** In which of the following forms is iron absorbed by plants?
 - (1) Ferric
 - (2) Ferrous
 - (3) Free element
 - (4) Both ferric and ferrous

Ans. (1)

- 133. Double fertilization is
 - (1) Fusion of two male gametes of a pollen tube with two different eggs
 - (2) Fusion of one male gamete with two polar nuclei
 - (3) Fusion of two male gametes with one egg
 - (4) Syngamy and triple fusion

Ans. (4)

- **134.** Which of the following elements is responsible for maintaining turgor in cells?
 - (1) Magnesium
- (2) Sodium
- (3) Potassium
- (4) Calcium

Ans. (3)

- 135. Which one of the following plants shows a very close relationship with a species of moth, where none of the two can complete its life cycle without the other?
 - (1) Hydrilla
- (2) Yucca
- (3) Banana
- (4) Viola

Ans. (2)

- **136.** Hormones secreted by the placenta to maintain pregnancy are
 - (1) hCG, hPL, progestogens, prolactin
 - (2) hCG, hPL, estrogens, relaxin, oxytocin
 - (3) hCG, hPL, progestogens, estrogens
 - (4) hCG, progestogens, estrogens, glucocorticoids

Ans. (3)

- **137.** The contraceptive 'SAHELI'
 - (1) blocks estrogen receptors in the uterus, preventing eggs from getting implanted.
 - (2) increases the concentration of estrogen and prevents ovulation in females.
 - (3) is an IUD.
 - (4) is a post-coital contraceptive.

Ans. (1)

- 138. The difference between spermiogenesis and spermiation is
 - (1) In spermiogenesis spermatids are formed, while in spermiation spermatozoa are formed.
 - (2) In spermiogenesis spermatozoa are formed, while in spermiation spermatids are formed.
 - (3) In spermiogenesis spermatozoa from Sertoli cells are released into the cavity of seminiferous tubules, while in spermiation spermatozoa are formed.
 - (4) In spermiogenesis spermatozoa are formed, while in spermiation spermatozoa are released from Sertoli cells into the cavity of seminiferous tubules.

Ans. (4)

- **139.** The amnion of mammalian embryo is derived from
 - (1) ectoderm and mesoderm
 - (2) endoderm and mesoderm
 - (3) mesoderm and trophoblast
 - (4) ectoderm and endoderm

Ans. (1)

- **140.** In a growing population of a country
 - (1) pre-reproductive individuals are more than the reproductive individuals.
 - (1) reproductive individuals are less than the postreproductive individuals.
 - (3) reproductive and pre-reproductive individuals are equal in number.
 - (4) pre-reproductive individuals are less than the reproductive individuals.

Ans. (1)

- **141.** All of the following are included in 'Ex-situ conservation' except
 - (1) Wildlife safari parks (2) Sacred groves
 - (3) Botanical gardens
- (4) Seed banks

Ans. (2)

- **142.** Which part of poppy plant is used to obtain the drug. "Smack" ?
 - (1) Flowers
- (2) Latex
- (3) Roots
- (4) Leaves

Ans. (2)

143. Match the items given in Column I with those in Column II and select the correct option given below:

Column I

Column II

- a. Eutrophication
- i. UV-B radiation
- b. Sanitary landfill
- ii. Deforestation
- c. Snow blindness
- iii. Nutrient enrichment iv. Waste disposal
- d. Jhum cultivation

a

d

C

- b (1)ii i iii iv
- (2) i iii ii įν
- (3)iii ii iv i
- (4)i ii iii iv
- Ans. (3)

- **144.** Which one of the following population interactions is widely used in medical science for the production of antibiotics?
 - (1) Commensalism
- (2) Mutualism
- (3) Parasitism
- (4) Amensalism

Ans. (4)

- **145.** Which of the following events does *not* occur in rough endoplasmic reticulum?
 - (1) Protein folding
 - (2) Protein glycosylation
 - (3) Cleavage of signal peptide
 - (4) Phospholipid synthesis

Ans. (4)

- 146. Which of these statements is incorrect?
 - (1) Enzymes of TCA cycle are present in mitochondrial matrix.
 - (2) Glycolysis occurs in cytosol.
 - (3) Glycolysis operates as long as it is supplied with NAD that can pick up hydrogen atoms.
 - (4) Oxidative phosphorylation takes place in outer mitochondrial membrane.

Ans. (4)

- **147.** Many ribosomes may associate with a single mRNA to form multiple copies of a polypeptide simultaneously. Such strings of ribosomes are termed as
 - (1) Polysome
 - (2) Polyhedral bodies
 - (3) Plastidome
 - (4) Nucleosome

Ans. (1)

- 148. Select the incorrect match:
 - (1) Lampbrush Diplotene bivalents chromosomes
 - (2) Allosomes Sex chromosomes
 - (3) Submetacentric L-shaped chromososmes chromosomes
 - (4) Polytene Oocytes of amphibians chromosomes

Ans. (4)

- 149. Nissl bodies are mainly composed of
 - (1) Proteins and lipids
 - (2) DNA and RNA
 - (3) Nucleic acids and SER
 - (4) Free ribosomes and RER

Ans. (4)

- **150.** Which of the following terms describe human dentition?
 - (1) Thecodont, Diphyodont, Homodont
 - (2) Thecodont, Diphyodont, Heterodont
 - (3) Pleurodont, Monophyodont, Homodont
 - (4) Pleurodont, Diphyodont, Heterodont

Ans. (2)

151. Match the items given in Column I with those in Column II and select the *correct* option given below:

Column I Glycosuria Column II

- i. Accumulation of uric acid in joints
- b. Gout
- Mass of crystallised salts within the kidney
- c. Renal calculi
- iii. Inflammation in glomeruli
- d. Glomerular nephritis
- iv. Presence of glucose in urine

a	b	C	d
iii	ii	iv	i

- (1) iii ii iv i (2) i ii iii iv
- (2) i ii iii iv (3) ii iii i iv
- (4) iv i ii iii

Ans. (4)

152. Match the items given in Column I with those Column II and select the *correct* option given below:

Column I (Function)

Column II
(Part of Excretory System)

- a. Ultrafiltrationb. Concentration
- i. Henle's loopii. Ureter
- of urine c. Transport of
- iii. Urinary bladder
- urine

d. Storage of urine

- iv. Malpighian corpuscle
- v. Proximal convoluted tubule

	a	b	c	d
(1)	iv	V	ii	iii
(2)	iv	i	ii	iii
(3)	V	iv	i	ii
(4)	v	iv	i	iii

Ans. (2)

- **153.** The similarity of bone structure in the forelimbs of many vertebrates is an example of
 - (1) Homology
- (2) Analogy
- (3) Convergent evolution (4) Adaptive radiation

Ans. (1)

- **154.** Which of the following is **not** at autoimmune disease?
 - (1) Psoriasis
- (2) Rheumatoid arthritis
- (3) Alzheimer's disease
- Ins (3)
- (4) Vitiligo

- Ans. (3)
- **155.** Among the following sets of examples for divergent evolution, select the *incorrect* option:
 - (1) Forelimbs of man, bat and cheetah
 - (2) Heart of bat, man and cheetah
 - (3) Brain of bat, man and cheetah
 - (4) Eye of octopus, bat and man
- Ans. (4)

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- **156.** Which of the following characteristics represent 'Inheritance of blood groups' in humans?
 - a. Dominance
 - b. Co-dominance
 - c. Multiple dominance
 - d. Incomplete dominance
 - e. Polygenic inheritance
 - (1) b, c and e
- (2) a, b and c
- (3) b, d and e
- (4) a, c and e

Ans. (2)

- **157.** In which disease does mosquito transmitted pathogen cause chronic inflammation of lymphatic vessels?
 - (1) Elephantiasis
- (2) Ascariasis
- (3) Ringworm disease
- (4) Amoebiasis

Ans. (1)

- **158.** Conversion of milk to curd improves its nutritional value by increasing the amount of
 - (1) Vitamin D
- (2) Vitamin A
- (3) Vitamin B_{12}
- (4) Vitamin E

Ans. (3)

- **159.** Which of the following is an amino acid derived hormone?
 - (1) Epinephrine
- (2) Ecdysone
- (3) Estradiol
- (4) Estriol

Ans. (1)

- **160.** Which of the following structures or regions is *incorrectly* paired with its function?
 - (1) Medulla oblongata: controls respiration and

cardiovascular reflexes.

- (2) Limbic system : consists of fibre tracts that
 - interconnect different regions of brain; controls movement.
- (3) Hypothalamus : production of releasing
 - hormones and regulation of temperature, hunger

and thirst.

(4) Corpus callosum : band of fibers connecting

left and right cerebral

hemispheres.

Ans. (2)

- **161.** Which of the following hormones can play a significant role in osteoporesis?
 - (1) Aldosterone and Prolactin
 - (2) Progesterone and Aldosterone
 - (3) Estrogen and Parathyroid hormone
 - (4) Parathyroid hormone and Prolactin

Ans. (3)

- **162.** The transparent lens in the human eye is held in its place by
 - (1) ligaments attached to the ciliary body
 - (2) ligaments attached to the iris
 - (3) smooth muscles attached to the iris
 - (4) smooth muscles attached to the ciliary body

Ans. (1)

16

- **163.** Which of the following animals does *not* undergo metamorphosis?
 - (1) Earthworm
- (2) Tunicate
- (3) Moth
- (4) Starfish

Ans. (1)

- **164.** Identify the vertebrate group of animals characterized by crop and gizzard in its digestive sytstem.
 - (1) Amphibia
- (2) Reptilia
- (3) Aves
- (4) Osteichthyes

Ans. (3)

- **165.** Which of the following organisms are known as chief producers in the oceans?
 - (1) Dinoflagellates
- (2) Diatoms
- (3) Cyanobacteria
- (4) Euglenoids

Ans. (2)

- **166.** Which one of these animals is **not** a homeotherm?
 - (1) Macropus
- (2) Chelone
- (3) Camelus
- (4) Psittacula

Ans. (2)

- 167. Ciliates differ from all other protozoans in
 - (1) using flagella for locomotion
 - (2) having a contractile vacuole for removing excess water
 - (3) using pseudopodia for capturing prey
 - (4) having two types of nuclei

Ans. (4)

- **168.** Which of the following features is used to identify a male cockroach from a female cockroach?
 - (1) Presence of a boat shaped sternum on the $9^{\rm th}$ abdominal segment
 - (2) Presence of caudal styles
 - (3) Forewings with darker tegmina
 - (4) Presence of anal cerci

Ans. (2)

- **169.** Which of the following options correctly represents the lung conditions in asthma and emphysema, respectively?
 - (1) Inflammation of bronchioles; Decreased respiratory surface
 - (2) Increased number of bronchioles; Increased respiratory surface
 - (3) Increased respiratory surface; Inflammation of bronchioles
 - (4) Decreased respiratory surface; Inflammation of bronchioles

Ans. (1)

170. Match the items given in Column I with those in Column II and select the **correct** option given below:

Column I

Column II

- a. Tricuspid valve
- i. Between left atrium and left ventricle
- b. Bicuspid valve
- ii. Between right ventricle and pulmonary artery
- c. Semilunar valve
- iii. Between right atrium and right ventricle

a	b	c
(1) iii	i	ii
(2) i	iii	ii
(3) i	ii	iii
(4) ii	i	iii

Ans. (1)

171. Match the items given Column I with those in Column II and select the **correct** option given below:

Column I

Column II

- a. Tidal volume
- i. 2500-3000 mL
- b. Inspiratory Reserve volume
- ii. 1100-1200 mL
- c. Expiratory Reserve volume
- iii. 500-550 mL

d. Residual volume		iv. 1000-1100 mL		
	a	b	c	d
(1)	iii	ii	i	iv
(2)	iii	i	iv	ii
(3)	i	iv	ii	iii
(4)	iv	iii	ii	i

Ans. (2)

- **172.** AGGTATCGCAT is a sequence from the coding strand of a gene. What will be the corresponding sequence of the transcribed mRNA?
 - (1) AGGUAUCGCAU
- (2) UGGTUTCGCAT
- (3) ACCUAUGCGAU
- (4) UCCAUAGCGUA

Ans. (1)

- 173. According to Hugo de Vries, the mechanism of evolution is :-
 - (1) Multiple step mutations
 - (2) Saltation
 - (3) Phenotypic variations
 - (4) Minor mutations

Ans. (2)

174. Match the items given in Column I with those in Column II and select the correct option given below :-

> Column I Column II a. Proliferative Phase i. Breakdown of

- b. Secretory Phase
- endometrial lining ii. Follicular Phase
- c. Menstruation
- iii. Luteal Phase
- h C (1) iii ii i (2) i ii iii (3) ii iii i (4) iii i ii

Ans. (3)

- 175. A woman has an X-linked condition on one of her X chromosomes. This chromosome can be inherited by :-
 - (1) Only daughters
 - (2) Only sons
 - (3) Only grandchildren
 - (4) Both sons and daughters

Ans. (4)

- **176.** All of the following are part of an operon except :-
 - (1) an operator
- (2) structural genes
- (3) an enhancer
- (4) a promoter

Ans. (3)

- **177.** Which of the following gastric cells indirectly help in erythropoiesis?
 - (1) Chief cells
- (2) Mucous cells
- (3) Goblet cells
- (4) Parietal cells

- Ans. (4)
- 178. Match the items given in Column I with those in Column II and select the **correct** option given below:-

	· · · ·				
	Colu	mn I	Column II		
a.	Fibrinogen		i.	Osmotic balance	
b.	Globulin		ii.	Blood clotting	
C.	Albumin		iii.	Defence mechanism	
	a	b		С	
(1)	iii	ii		i	
(2)	i	ii		iii	
(3)	i	iii		ii	
(4)	ii	iii		i	

Ans. (4)

- 179. Calcium is important in skeletal muscle contraction because it :-
 - (1) binds to troponin to remove the masking of active sites on actin for myosin.
 - (2) activates the myosin ATPase by binding to it.
 - (3) detaches the myosin head from the actin
 - (4) prevents the formation of bonds between the myosin cross bridges and the actin filament.

Ans. (1)

- **180.** Which of the following is an occupational respiratory disorder?:
 - (1) Anthracis
- (2) Silicosis
- (3) Botulism
- (4) Emphysema