## DR. ABHANG PRABHU'S TUTORIALS NEET :2020 (SOLUTION)

Max. Marks: 360

# Time: 90 Minutes.

Version F6

#### Note:

- \* Every correct answer (+4 Mark)
- \* Every wrong answer (-1 Mark)

#### Ch.1. The Living World xxxxxxxx

## Ch.2.Biological Classification

## 118. Which of the following is **correct** about viroids?

- 1) They have DNA with protein coat
- 2) They have free-DNA without protein coat.
- 3) They have RNA with protein coat
- 4) They have free RNA without protein coat

## Ch.3. Plant Kingdom

- 72. which of the following pairs is of unicellular algae
  - 1) anabaena and volvox
  - 2) chlorella and spirulina
  - 3) laminaria and sargassum
  - 4) gelidium and gracilaria

## 85. Floridean starch has structure similar to:

- 1) Mannitol and algin
- 2) Laminarin and cellulose
- 3) Starch and cellulose
- 4) Amylopectin and glycogen

## 116. The plant parts which consist of two generations one within the other:

- (a) Pollen grains inside the anther
- (b) Germinated pollen grain with two male gametes
- (c) Seed inside the fruit
- (d) Embryo sac inside the ovule
- 1) (c) and (d)
- 2) (a) and (d)
- 3) (a) only
- 4) (a), (b) and (c)

105. Strobili or cones are found in:

- 1) Marchantia
- 2) Equisetum
- 3) Salvinia
- 4) Pteris

#### Ch.4. Animal Kingdom

73. Match the following :

Mate	en the following :		
(a)	6-15 pairs of gill slits	(i)	Trygon
(b)	heterocercal caudal fin	(ii)	Cyclostomes
(c)	air bladder	(iii)	Chondrichthyes
(d)	poison sting	(iv)	Osteichthyes

- (a) (b) (c) (d)
- 1) (iv) (ii) (iii) (i)
- 2) (i) (iv) (iii) (ii)
- 3) (ii) (iii) (iv) (i)
- 4) (iii) (iv) (i) (ii)
- 74. bilaterally symmetrical and acceolomate animals are exemplified by
  - 1) Aschelminthes
  - 2) Annelida
  - 3) ctenophore
  - 4) Platyhelminthes
- 91. Which of the following statements are true for the phylum-Chordata?

(a) In Urochordata notochord extends from head to tail and it is present throughout their life

- (b) In Vertebrata notochord is present during the embryonic period only.
- (c) Central nervous system is dorsal and hollow.

(d) Chordata is divided into 3 subphyla: Hemichordata, Tunicata and Cephalochordata.

- 1) (a) and (b)
- 2) (b) and (c)
- 3) (d) and (c)
- 4) (c) and (a)

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123. Match the following columns and select the correct option.

	Column I		Column II
(a)	Gregarious, polyphagous pest	(i)	Asterias
(b)	Adult with radial symmetry and larva with bilateral symmetry	(ii)	Scorpion
(c)	Book lungs	(iii)	Ctenoplana
(d)	Bioluminescence	(iv)	Locusta
	(1) $(1)$ $(1)$		

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

Ch.5. Morphology of Flowering Plants

51. The roots that originate from the base of the stem are:

- 1) Prop roots
- 2) Lateral roots
- 3) **Fibrous roots**
- 4) Primary roots

#### 63. Ray florets have :

- 1) Hypogynous ovary
- 2) Half inferior ovary
- 3) inferior ovary
- 4) Superior ovary

#### 75. the ovary is half inferior in

- 1) sunflower
- 2) plum
- 3) brinjal
- 4) mustard

#### Ch.6. Anatomy of Flowering Plants

- 62. Identify the incorrect statement
  - 1) Sapwood is the innermost secondary xylem and is lighter in colour
  - 2) Due to deposition of tannis, resins, oils etc, heart wood is dark in colour
  - 3) Heart wood does not conduct water but gives mechanical support
  - 4) Sapwood is involved in conduction of water and minerals from root to leaf
- 101. The transverse section of a plant shows following anatomical features:
  - (a) Large number of scattered vascular bundles surrounded by bundle sheath

- (b) Large conspicuous parenchymatous ground tissue
- (c) Vascular bundles conjoint and closed
- (d) Phloem parenchyma absent

Identify the category of plant and its part:

- 1) Dicotyledonous stem
- 2) Dicotyledonous root
- 3) Monocotyledonous stem
- 4) Monocotyledonous root

#### Ch.7.Structural Organisation in Animals

#### tissue

- 70. goblet cells of alimentary canal are modified from
  - 1) chrondrocytes
  - 2) compound epithelial cells
  - 3) Squamous epithelial cells
  - 4) columnar epithelial cells

#### cockroach

131. If the head of cockroach is removed, it may live for few days because:

- 1) the head holds a small proportion of a nervous system while the rest is situated along the ventral part of its body.
- the head hold a 1/3<sup>rd</sup> of a nervous system while the rest is situated along the dorsal part of its body.

3) the supra-oesophageal ganglia of the cockroach are situated in ventral part of abdomen.

4) the cockroach does not have nervous system

## tissue

109. Cuboidal epithelium with brush border of microvilli is found in:

## 1) proximal convoluted tubule of nephron

- 2) Eustachian tube
- 3) lining of intestine
- 4) ducts of salivary glands

## Ch.8.Cell : The Unit of Life

- 56. Which of the following statements about Inclusion bodies is incorrect:
  - 1) They lie free in the cytoplasm
  - 2) These represent reserve material cytoplasm
  - 3) They are not bound by any membrane
  - 4) they are involved in ingestion of food particles.

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- 97. Which is the important site of formation of glycoproteins and glycolipids in eukaryotic cells?
  - 1) Golgi bodies
  - 2) Polysomes
  - 3) Endoplasmic recticulum
  - 4) Peroxisomes

#### Ch.9. Biomolecules

- 67. Which one of the following is most abundant protein in the animals
  - 1) lectin
  - 2) insulin
  - 3) Haemoglobin
  - 4) collagen
- 99. Identify the basic amino acid from the following:
  - 1) Lysine
  - 2) Valine
  - 3) Tyrosine
  - 4) Glutamic Acid
- 135. Identify the substances having glycosidic bond and peptide bond, respectively in their structure:
  - 1) Cellulose, lecithin
  - 2) Inulin, insulin
  - 3) Chitin, cholesterol
  - 4) Glycerol, trypsin
- 114. Match the following:

	Column I		Column II
(a)	Inhibitor of catalytic activity	(i)	Ricin
(b)	Possess peptide bonds	(ii)	Malonate
(c)	Cell wall material in fungi	(iii)	Chitin
(d)	Secondary metabolite	(iv)	Collagen

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

## Ch.10. Cell Cycle & Cell Division

- 57. Dissolution of synaptonemal complex:
  - 1) Diplotene
  - 2) Leptotene

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- 3) Pachytene
- 4) Zygotene
- 64. Identify the correct statement with regard to  $G_1$  phase (Gap 1) of interphase.
  - 1) Cell is metabolically active, grows but does not replicate its DNA.
  - 2) Nuclear Division takes place
  - 3) DNA synthesis or replication take place
  - 4) Reorganisation of all cell components takes place.
- 102. Some dividing cells exit the cell cycle and enter vegetative inactive stage. This is called quiescent stage (G<sub>0</sub>). This process occurs at the end of:
  - 1) S phase
  - 2) G<sub>2</sub> phase
  - 3) M phase
  - 4)  $G_1$  phase

#### 130. Match the following with respect to meiosis:

(a)	Zygotene	(i)	Terminalization
(b)	Pachytene	(ii)	Chiasmata
(c)	Diplotene	(iii)	Crossing over
(d)	Diakinesis	(iv)	Synapsis

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

#### Ch.11.Transport in Plants

- 129. The process responsible for facilitating loss of water in liquid form from the tip of grass blades at night and in early morning is:
  - 1) Imbibition
  - 2) Plasmolysis
  - 3) Transpiration
  - 4) Root pressure

#### Ch.12.Mineral Nutrition

81. Match the following concerning essential elements and their function in plants:

	Column I		Column II
(a)	Iron	(i)	Photolysis of water
(b)	Zinc	(ii)	Pollen germination
(c)	Boron	(iii)	Required chlorophyll biosynthesis

Manganese

(d)

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(iv)

IAA biosynthesis

Select the correct option:

	(a)	<b>(b)</b>	(c)	(d)
1)	(iii)	(iv)	(ii)	(i)
2)	(iv)	(i)	(ii)	(iii)
3)	(ii)	(i)	(iv)	(iii)

- 4) (iv) (iii) (ii) (i)
- 133. The product(s) of reaction catalyzed by nitrogenase in root nodules of leguminous plants is/are:
  - 1) Ammonia and oxygen
  - 2) Ammonia and hydrogen
  - 3) Ammonia alone
  - 4) Nitrate alone

#### Ch.13.Photosynthesis in Higher Plants

- 79. In light reaction ,plastoquinone facilitates the transfer of electrons from
  - 1) PS –I to NADP+
  - 2) PS –I to ATP synthase
  - 3) PS-II to cyt b6f complex
  - 4) cyt b6f complex to PS-1
- 83. The oxygenation activity of RuBisCo enzyme in photorespiration leads to the formation:
  - 1) 1 molecule of 6-C compound
  - 2) 1 molecule of 4-C compound and 1 molecule of 2-C compound
  - 3) 2 molecules of 3-C compound
  - 4) 1 molecule of 3-C compound

## Ch.14.Respiration in Plants

- 104. The number of substrate level phosphorylations in one turn of citric acid cycle is:
  - 1) Two
  - 2) Three
  - 3) Zero
  - 4) One

#### Ch.15.Plant Growth & Development

- 68. The process of growth is maximum during
  - 1) senescence
  - 2) dormancy
  - 3) log phase
  - 4) lag phase

- 71. Name the plant growth regulator which upon spraying on sugarcane crop, increases the length of stem, thus increasing the yield of sugarcane crop1) ethylene
  - 2) Abscissic acid
  - 3) cytokinin
  - 4) gibberellins

115. Which of the following is **not** an inhibitory substance governing seed dormancy?

- 1) Phenolic acid
- 2) Para-ascorbic acid
- 3) Gibberellic acid
- 4) Abscisic acid

## Ch.16. Digestion & Absorption

- 49. The enzyme enterokinase helps in conversion of:
  - 1) caseinogens into casein
  - 2) pepsinogen into pepsin
  - 3) protein into polypeptides
  - 4) trypsinogen into trypsin
- 121. Identify the correct statement with reference to human digestive system.
  - 1) Ileum is a highly coiled part.
  - 2) Vermiform appendix arises from duodenum
  - 3) Ileum opens into small intestine
  - 4) Serosa is the innermost layer of the alimentary canal.

## Ch.17.Breathing & Exchange of Gases

92. Identify the wrong statement with reference to transport of oxygen.

## 1) Higher H<sup>+</sup> conc. in alveoli favours the formation of oxyhaemoglobin

- 2) Low  $pCO_2$  in alveoli favours the formation of oxyhaemoglobin
- 3) Binding of oxygen with haemoglobin is mainly related to partial pressure of  $O_2$
- 4) Partial pressure of CO<sub>2</sub> can interfere with O<sub>2</sub> binding with haemoglobin

## 127. Select the **correct events** that occur during inspiration.

- (a) Contraction of diaphragm
- (b) Contraction of external inter-costal muscles
- (c) Pulmonary volume decreases
- (d) Intra pulmonary pressure incurease
- 1) (a), (b) and (d)
- 2) only (d)

- 3) (a) and (b)
- 4) (c) and (d)

## Ch.18.Body Fluids & Circulation

#### 111. Match the following columns

	Colun	ın I			Column II
(a)	Eosino	phils		(i)	Immune response
(b)	Basoph	nils		(ii)	Phagocytosis
(c)	Neutro	phils		(iii)	Release histaminase, destructive enzymes
(d)	Lymph	ocytes		(iv)	Release granules containing histamine
	(a)	<b>(b)</b>	(c)	(d)	
1)	(i)	(ii)	(iv)	(iii)	
2)	(ii)	(i)	(iii)	(iv)	
3)	(iii)	(iv)	(ii)	(i)	
4)	(iv)	(i)	(ii)	(iii)	

- 103. The QRS complex in a standard ECG represents:
  - 1) Depolarisation of ventricles
  - 2) Repolarisation of ventricles
  - 3) Repolarisation of auricles
  - 4) Depolarisation of auricles

## Ch.19. Excretory Products & their Elimination

48. Which of the following would help in prevention of diuresis:

- 1) Atrial natriuretic factor causes vasoconstriction
- 2) Decrease in secretion of renin by JG cells
- 3) More water reabsorption due to undersecretion of ADH

# 4) Reabsorption of Na<sup>+</sup> and water from renal tubules due to

## aldosterone

106. Presence of which of the following conditions in urine are indicative of Diabetes Mellitus?

## 1) Ketonuria and Glycosuria

- 2) Renal calculi and Hyperglycaemia
- 3) Uremia and Ketonuria
- 4) Uremia and Renal Calculi

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Ch.20. Locomotion & Movement

52.	Match the f	following o	columns and	select the	correct option
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	Column I		Column II
(a)	Floating Ribs	(i)	Located between second and seventh ribs
(b)	Acromion	(ii)	Head of the Humerus
(c)	Scapula	(iii)	Clavicle
(d)	Glenoid cavity	(iv)	Do not connect with the sternum

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

Ch.21.	Neural	Control	&	Coordination
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110. Match the following columns and select the correct option.

	Column I		Column II
(a)	Organ of Corti	(i)	Connects middle ear and pharynx
(b)	Cochlea	(ii)	Coiled part of the labyrinth
(c)	Eustachian tube	(iii)	Attached to the oval window
(d)	Stapes	(iv)	Located on the basilar membrane

	(a)		(b)	(c)	(d)
1)	(iv)	(ii)	(i)	(iii)	
2)	(i)	(ii)	(iv)	(iii)	
3)	(ii)	. 6	(iii)	(i)	(iv)
4)	(iii)	(i)	(iv)	(ii)	

## Ch.22. chemical control& Coordination

50. Match the following columns and select the correct option:

		Column I		Column II
$\mathbf{C}$	(a)	Pituitary gland	(i)	Grave's disease
	(b)	Thyroid gland	(ii)	Diabetes mellitus
	(c)	Adrenal gland	(iii)	Diabetes insipidus
	(d)	Pancreas	(iv)	Addison's disease

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

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## 4) (iii) (ii) (i) (iv)

- 95. Select the correct statement.
  - 1) Insulin acts on pancreatic cells and adipocytes
  - 2) Insulin is associated with hyperglycemia
  - 3) Glucocorticoids stimulate gluconeogenesis
  - 4) Glucagon is associated with hypogelycemia.

#### Ch.1. Reproduction in Organisms

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#### ch.2.Sexual Reproduction in Flowering Plants

- 61. In water hyacinth and water lily, pollination place by:
  - 1) wind and water
  - 2) insects and water
  - 3) insects or wind
  - 4) water currents only

## 53. The Body of the ovule is fused within the funicle at:

- 1) Nucellus
- 2) Chalaza
- 3) Hilum
- 4) Micropyle

## Ch.3. Human Reproduction

- 87. Meiotic division of the secondary oocyte is complete:
  - 1) After zygote formation
  - 2) At the time of fusion of a sperm with an ovum
  - 3) Prior to ovulation
  - 4) At the time of copulation

## 90. Match the following

	Column I		Column II
(a)	Placenta	(i)	Androgens
(b)	Zona Pellucids	(ii)	Human Chorionic Gonadotropin (hCG)
(c)	Bulbo-urethral glands	(iii)	Layer of the ovum
(d)	Leydig cells	(iv)	Lubrication of the Penis

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

- 134. Which of the following hormone levels will cause release of ovum (Ovulation) from the graffian follicle?
  - 1) Low concentration of LH
  - 2) Low concentration of FSH
  - 3) High concentration of Estrogen
  - 4) High concentration of Progesterone

## Ch.4. Reproductive Health

- 59. Select the option including all Sexually transmitted disease
  - 1) AIDS, Malaria, Filaria
  - 2) Cancer, AIDS, Syphilis
  - 3) gonorrhoea , syphilis , Genital herpes
  - 4) Gonorrhoea, Malaria, Genital herpes
- 112. In which of the following techniques, the embryos are transferred to assist those females who cannot conceive?
  - 1) ICSI and ZIFT
  - 2) GIFT and ICSI
  - 3) ZIFT and IUT
  - 4) GIFT and ZIFT

## Ch.5. Principles of Inheritance & Variation

58. Identify the wrong statement with <u>reference</u> the gene 'I' that congrol ABO blood groups

# 1) when $I^A$ and $I^B$ are present together they express same type of sugar

- 2) Allele 'i' does not produce any sugar
- 3) The gene (I) has three alleles.
- 4) A person will have only two of the t alleles.
- 78. How many true breeding pea plant varieties did Mendel select as pairs , which were similar except in one character with contrasting traits
  - 1) 14
  - 2) 8
  - (3) 4
  - 4) 2

## 93. Experimental verification of the chromosomal theory of inheritance was done by:

- 1) Boveri
- 2) Morgan
- 3) Mendel
- 4) Sutton

124. Select the <b>correct</b> match:
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1)	Sickle cell	Autosomal recessive trait,		
	anaemia	chromosome - 11`		
2)	Thalassemia	X linked		
3)	Haemophilia	Y linked		
4)	Phenylketonuria	Autosomal dominant trait		

#### Ch.6. molecular basis

80. Name the enzyme that facilitates opening of DNA helix during transcription.

- 1) DNA polymerase
- 2) **RNA polymerase**
- 3) DNA ligase
- 4) DNA helicase
- 122. If the distance between two consecutive base pairs is 0.34 nm and the total number of base pairs of a DNA double helix in a typical mammalian cell is  $6.6 \times 10^9$  bp, then the length of the DNA is approximately:
  - 1) 2.2 meters
  - 2) 2.7 meters
  - 3) 2.0 meters
  - 4) 2.5 meters
- 113. The first phase of translation is:
  - 1) Aminoacylation of tRNA
  - 2) Recognition of an anti-codon
  - 3) Binding of mRNA to ribosome
  - 4) Recognition of DNA molecule
- 119. Which of the following statement is **correct**?
  - 1) Adenine pairs with thymine through three H-bonds
  - 2) Adenine does not pair with thymine
  - 3) Adenine pairs with thymine through two H-bonds
  - 4) Adenine pairs with thymine though one H-bond.

## Ch.7.Evolution

- 82. Which of the following refer to correct example(s) of organisms which have evolved due to change in environment brought about by anthropogenic action?
  - (a) Darwin's Finches of Galapagos islands
  - (b) Herbicide resistant weeds
  - (c) Drug resistant eukaryotes
  - (d) Man-created breeds of domesticated animals like doges.

- 1) (b), (c) and (d)
- 2) only (d)
- 3) only (a)
- 4) (a) and (c)
- 88. From his experiments, S.L. Miller produced amino acids by mixing the following in a closed flask:
  - 1)  $CH_4$ ,  $H_2 NH_3$  and water vapor at 600°C
  - 2)  $CH_3$ ,  $H_2$ ,  $NH_3$  and water vapor at 600°C
  - 3) CH<sub>4</sub>, H<sub>2</sub>, NH<sub>3</sub> and water vapor at 800°C
  - 4)  $CH_3$ ,  $H_2$ ,  $NH_4$  and water vapor at 800°C
- 100. Embryological support for evolution was disapproved by:
  - 1) Charles Darwin
  - 2) Oparin
  - 3) Karl Ernst von Baer
  - 4) Alfred Wallace
- 107. Flippers of Penguins and Dolphins are examples of:
  - 1) Industrial melanism
  - 2) Natural selection
  - 3) Adaptive radiation
  - 4) Convergent evolution

# Ch.8. human health

- 54. The Infectious stage of Plasmodium that enters the human body is:
  - 1) Female gametocytes
  - 2) Male gametocytes
  - 3) GTrophozoites
  - 4) Sporozoites
- 96. Identify the wrong statement with reference to immunity.

# 1) Active immunity is quick and gives full response.

- 2) Foetus receives some antibodies from mother it is an example for passive immunity.
- 3) When exposed to antigen (living or dead) antibodies are produced in the host's body. It is called "Active immunity"
- 4) When ready-made antibodies are directly given, it is called "Passive immunity".
- 132. Match the following disease with the causative organism and select the **correct** option.

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		Colun	nn I				Column II
(a)		Typhoi	id			(i)	Wuchereria
(b)		Pneumonia		(ii)	Plasmodium		
(c)		Filaria	asis			(iii)	Salmonella
(d)		Malari	ia			(iv)	Haemophilus
	(a)	) (	(b)	(c)	(d)		
1)	(ii)	(	i)	(iii)	(iv)		
2)	(iv	) (1	i)	(ii)	(iii)		G
3)	(i)	(	iii)	(ii)	(iv)		
4)	(ii	i) (	iv)	(i)	(ii)		

#### Ch.9.Strategies for Enhancement in Food Production

- 77. By which method was a new breed hisardale of sheep formed by using bikaneri ewes and marino rams
  - 1) cross breeding
  - 2) inbreeding
  - 3) out crossing
  - 4) mutational breeding

## Ch.10 microbes

#### 46. Match the following columns and select the correct option

	Column I		Column II
(a)	Clostridium butylicum	(i)	Cyclosporin A
(b)	Trichoderma polysporum	(ii)	Butyric Acid
(c)	Monascus purpureus	(iii)	Citric Acid
(d)	Aspergillus niger	(iv)	Blood cholesterol lowering agent

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

- 60. Which of the following is put into Anaerobic sludge digester for further sewage treatment?
  - 1) Effluents of primary treatment
  - 2) activated sludge
  - 3) Primary sludge
  - 4) Floating debris

	Column I		Column II
(a)	Bacillus thuringiensis	(i)	Cloning vector
(b)	Thermus aquaticus	(ii)	Construction of first rDNA molecule
(c)	Agrobacterium tumefaciens	(iii)	DNA polymerase
(d)	Salmonella typhimurium	(iv)	Cry proteins

47. Match the organisms with its use in biotechnology:

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

55. Identify the wrong statement with regard to Restriction enzymes.

1) They are useful in genetic engineering

2) sticky ends can be joined by using DNA ligase

3) Each restriction enzyme functions by inspective the length of DNA sequence.

4) they cut the strand of DNA at palindromic sites

- 65. The specific Palindromic sequence which is recognized by Eco RI is:
  - 1) 5' CTTAAG -3' 3' - GAATTC - 5'
  - 2) 5' GGATCC 3'3' - CCTAGG - 5'
  - 3) **5'- GAATTC 3' 3'- CTTAAG - 5'**
  - 4) 5' GGAACC 3'3' - CCTTGG - 5'
- 89. Choose the correct pair from the following.

1) Nucleases Separate the two		Separate the two strands of DNA	
2)	Exonucleases	Make cuts at specific positions within DNA	
3)	Ligases	Join the two DNA molecules	
4)	Polymerases	Break the DNA into fragemnts	

- 94. The sequence that controls the copy number of the linked DNA in the vector, is termed:
  - 1) Palindromic sequence
  - 2) Recognition site

- 3) Selectable marker
- 4) Ori site

120. In gel electrophoresis, separated DNA fragments can be visualized with the help of:

- 1) Acetocarmine in UV radiation
- 2) Ethidium bromide in infrared radiation
- 3) Acetocarmine in bright blue light
- 4) Ethidium bromide in UV radiation

## $Ch.12 \ Biotechnology \ and \ its \ Applications$

## 86. Match the following columns and select the correct option.

	Column I		Column II
(a)	Bt cotton	(i)	Gene therapy
(b)	Adenosine deaminase deficiency	(ii)	Cellular defence
(c)	RNAi	(iii)	Detection of HIV infection
(d)	PCR	(iv)	Bacillus thuringiensis

- (a) (b) (c) (d) 1) (ii) (iii) (iv) (i) 2) (i) (ii) (iii) (iv) 3) **(ii)** (iii) (iv) (i) 4) (iii) (ii) (i) (iv)
- 126. Bt cotton variety that was developed by the introduction of toxin gene of Bacillus thuringiensis (Bt) is resistant to:
  - 1) Plant nematodes
  - 2) Insect predators
  - 3) Insect pests
  - 4) Fungal diseases

108. Which of the following statements is not correct?

1) The functional insulin has A and B chains linked together by hydrogen bonds.

- 2) Genetically engineered insulin is produced in E-Coli
- 3) In man insulin is synthesized as a proinsulin
- 4) The proinsulin has an extra peptide called C-peptide

Ch.13.Organisms & Populations

128. Which of the following is **not** an attribute of a population?

- 1) Mortality
- 2) Species interaction
- 3) Sex ratio
- 4) Natality
- 66. Secondary metabolites such as nicotine, strychnine and caffeine are produced by plants for their
  - 1) Defence action
  - 2) Effect on reproduction
  - 3) Nutritive value
  - 4) growth response

## Ch.14.Ecosystem

98. Match the trophic levels with their **correct** species examples in grassland ecosystem.

	Column I		Column II
(a)	Fourth trophic level	(i)	Crow
(b)	Second trophic level	(ii)	Vulture
(c)	First trophic level	(iii)	Rabbit
(d)	Third trophic level	(iv)	Grass

Select the correct option

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

- 125. In relation to Gross primary productivity and Net primary productivity of an ecosystem, which one of the following statements is **correct**?
  - 1) Gross primary productivity and Net primary productivity are one and same.
  - 2) There is no relationship between Gross primary productivity and Net primary productivity
  - 3) Gross primary productivity is always less than net primary productivity.

4) Gross primary productivity is always more than net primary productivity

## Ch.15.Biodiversity and Conservation

69. According to Robert may, the global species diversity is about

- 1) 50 million
- 2) 7 million
- 3) 1.5 million
- 4) 20 million

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- 76. which of the following regions of the globe exhibits highest species diversity
  - 1) Himalayas
  - 2) amazon forest
  - 3) westernghats of india
  - 4) Madagascar

## Ch.16.Environmental Issues

- 84. Snow-blindness in Antarctic region is due to:
  - 1) High reflection of light from snow
  - 2) Damage to retina caused by infra-red rays
  - 3) Freezing of fluids in the eye by low temperature
  - 4) Inflammation of cornea due to high dose of UV-B radiation
- 117. Montreal protocol was signed in 1987 for control of:
  - 1) Release of Green House gases
  - 2) Disposal of e-wastes
  - 3) Transport of Genetically modified organisms from one country to another
  - 4) Emission of ozone depleting substances

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