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India's Number 1 Education App

## BIOLOGY

## BOOKS - NTA MOCK TESTS

## NTA NEET SET 47

## Biology

1. Tetradynamous conditions are present in the plants of which family?
A. Solanaceae
B. Leguminosae
C. Liliaceae
D. Brassicaceae

Answer: D

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2. Gastrin and secretin are classified as
A. Peptide hormones
B. steroid hormone
C. amino acid derivative
D. iodothyronine

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3. Match the following columns
Column I
Column II
$I$ Vexillary petals (a) a) Pea - Fabaceae
II Perianth
(b) b)Lily - Liliaceae
III False septum
(c) c)Tomato -Solanaceae
IV Persistent sepals
(d) d) Mustard - Brassicaceae
A. I-a, II-b, III-d, IV-c
B. I-d, II-c, III-b, IV-a
C. I-b, II-c, III-d,IV-a
D. I-c, II -d, III-a, IV-b

## Answer: A

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4. What are the structures on which progesterone acts?
A. Uterus
B. Mammary glands
C. Cervix
D. All of the above

Answer: D
5. Modification in the form of leaf spines and stem thorns is observed in
A. watermelon and Australian babool
B. Pumpkin and cacti
C. cacti and Citrus
D. Citrus and cacti

Answer: C

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6. Observe figures and choose the correct option.

A. A- showing epigynous, inferior ovary
B. B- showing hypogynous, superior ovary
C. A- showing epigynous, half superior ovary
D. B- showing hypogynous, inferior ovary

## Answer: B

## 7. Which of the following structures contains groups of

 neurosecretory cells?A. Hypothalamus
B. Cerebral cortex
C. Thalamus
D. Piamater

Answer: A

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8. A natural system of classification based on natural
affinities among the organisms, including external and
A. Aristotle
B. Linnaeus
C. Bantham and Hooker
D. Engler and prantle

Answer: C

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9. An aldehyde and a protein, respectively, of vitamin A
found in the eye are
A. Opsin and retinal
B. retinal and opsin
C. carotene and opsin
D. Keratin and carotene

## Answer: B

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10. From the given plants, how many are pteridophytes?

Selaginella, Dryopteris, Adiantum, pinus, salvinia, Ginkgo,

Marchantia, Cycas
A. 5
B. 3
C. 7
D. 4

Answer: D

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11. If the diameter of the afferent renal arteriole is decreased and that of efferent renal arteriole is increased, the ultrafiltration will
A. be faster
B. be slower
C. not takes place
D. takes place with the same speed

## Answer: B

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12. The chemical formula of oxyhaemoglobin is
A. $\mathrm{Hb}\left(\mathrm{O}_{2}\right)_{4}$
B. $\mathrm{Hb}\left(\mathrm{O}_{3}\right)_{4}$
C. $\mathrm{Hb}\left(\mathrm{O}_{2}\right)_{6}$
D. $\mathrm{Hb}_{2} \mathrm{O}_{4}$
13. The gradient of medullary interstitium is mainly caused by
A. sodium chloride and urea
B. urea and HCl
C. urea and uric acid
D. urea and hydrogen ion

Answer: A
14. In nucleus, nuclear pores are formed by the
A. both inner and outer nuclear membranes remain parallel.
B. both inner and outer nuclear membranes get fused.
C. Both inner and outer nuclear membranes get fused.
D. Both inner and outer nuclear membranes break by chromosomes.

## Answer: B

15. The atrium and ventricle of the same side is separated by
A. atrioventricular valves
B. atrioventricular septum
C. both (a) and (b)
D. tricuspid valves

Answer: C

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16. $\mathrm{i}, \mathrm{j}, \mathrm{I}$ and v-shaped chromosomes are, respectively,
A. metacentric, acrocentric, geocentric, submetacentric
B. acrocentric , sub-metacentric, metacentric, telocentric
C. telocentric, acrocentric, sub-metacentric, metacentric
D. Sub-metacentric, telocentric, acrocentric, metacentric

## Answer: C

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17. Maximum amount of oxygen is lost from the blood in
A. arteries
B. capillaries of body
C. left atrium of the heart
D. Capillaries surrounding alveoli

## Answer: B

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18. Catalase enzyme of peroxisome degrades
A. water into $H^{+}, e^{-}$. and oxygen
B. hydrogen peroxide into water and oxygen.
C. hydrogen peroxide into HCO and $\mathrm{O}_{2}$.
D. $\mathrm{H}_{2} \mathrm{O}+\mathrm{O}_{2}$ form hydrogen peroxide.

## Answer: B

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19. Select the aquatic fern among the following options.
A. Azolla
B. Salvinia
C. Salvia
D. Both (a) and (b)

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20. The taxonomic categories: Musca, Muscidae, Diptera, Insecta and Arthropoda are related to which of the following organisms?
A. Man
B. Tortoise
C. Bat
D. Housefly

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21. Read the following statements regarding sexual reproduction and select the set of correct statements.
(a.) Sexual reproduction mostly involves 2 parents.
(b.) It generally involves gametic fusion.
(c.) Meiosis does not occur in sexual reproduction.
(d.) External fertilization is a characteristic of sexual reproduction.
A. a and c
B. $a$ and b
C. cand d
D. a , b and d

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22. Which of these is not a classical example of adaptive radiation in the development of new species?
A. Darwin's finches
B. Marsupials of Australia
C. Giant turtle
D. Evolution of human

Answer: D
23. The pore of gastrula is called
A. blastopore
B. gonopore
C. Zygopore
D. endospore

Answer: A

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24. Trypsin, insulin and morphine are respectively,
A. a protein, enzyme and alkaloid
B. an alkaloid, enzyme and protein
C. an enzyme, hormone and alkaloid
D. a hormone, alkaloid and protein

## Answer: C

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25. In which part of the alimentary canal the negligible amount of absorption of substance take place?
A. mouth
B. Stomach

## C. Small intestine

## D. oesophagus

## Answer: D

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26. A. Proteins are polymer of. $\qquad$
B. Lipids are not strictly .....b.....
C. Polysaccharide are long chains of $\qquad$
D. Nucleic acid is a polymer of . $\qquad$ d

Fill in the blanks
A. a- macromolecules, b-amino acids, c-sugars, d-
B. $a$ - amino acids, $b$ - macromolecules, $c-$ sugars, $d-$ nucleotides
C. a - nucleotides , b-sugars , c - nucleotides , d macromolecules
D. a - sugars, b-nucleotides , c - amino acids , d macromolecules

Answer: B

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27. In which of the following organism the regulation of blood flow cannot be precisely regulated?
A. Pila
B. Limulus
C. Scoliodon
D. Octopus

## Answer: B

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28. Identify the structure given below by selecting the correct option.

## C-

A. An guanine nucleic acid with ribose and monophosphate
B. An adenine nucleic acid with ribose and monophosphate
C. An cytosine nucleic acid with ribose and monophosphate
D. An thymine nucleic acid with ribose and monophosphate

Answer: B

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29. Which of the following animals is not a pair of poikilotherms?
A. Torpedo, Trygon
B. Trygon, panthera
C. Pristis, carcharodon
D. Scoliodon, Trygon

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30. If the egg of sexually reproduction organisms contains 16 chromosomes, what will be the number of dyads in anaphase l?
A. 16
B. 8
C. 32
D. 64

## Answer: C

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31. When a cardiac muscle cell receives a signal to connect, its neighbours are also stimulated to connect.

This is due to
A. desmosomes
B. intercalated disc
C. tight junctions
D. sarcoplasm

## Answer: B

32. In meiosis, haploid cells are formed. During this process, the nuclear membranes and nucleolus disappear
A. One time
B. two times
C. four times
D. eight times

Answer: B

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33. Which of the following cell junctions help in the rapid transfer of ions and molecules?
A. Gap junctions
B. Adhering junctions
C. Synaptic junctions
D. Tight junctions

Answer: A

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34. The following anatomical features belong to
A. Hypodermis made by collenchyma.
B. Pericycle in patches of parenchyma and sclerenchyma
C. Bundle cap is present.
D. Vascular bundle open.
A. Sunflower stem - Dicot
B. Sunflower stem - Monocot
C. Maize stem - Dicot
D. Maize stem - Monocot

## Answer: A

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35. The bark of a tree includes
A. both secondary and primary phloem.
B. Secondary cortex, cork cambium and cork.
C. Periderm and primary/secondary phloem.
D. all of these

## Answer: D

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36. Extra-terrestrial origin of life was proposed by theory of
A. spontaneous creation
B. special creation
C. catastrophism
D. panspermia

## Answer: D

## D Watch Video Solution

37. Which of the following describe the ploidy level of embryo sac or female gametophyte before fertilization?
A. Egg apparatuses is haploid
B. Polar nuclei are diploid
C. Antipodal cell are polypoid
D. Both egg apparatus and antipodal cells are haploid.

## Answer: D

## - Watch Video Solution

38. Identify the phenomena shown by the organisms in the following diagram.

A. Parallel evolution
B. Divergent evolution

# C. Convolution 

D. Branching descent

Answer: A

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39. Which of the following features describes the figure given below?

A. Monocarpellary, apocarpous
B. Monocarpellary, syncarpous
C. Multicarpellary, apocarpous
D. Multicarpellary, syncarpous

## Answer: D

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40. Presence of gills in the tadpole of frog indicates that
A. fishes were amphibious in the past
B. fishes evolved from frog-like ancestors
C. frogs will have gills in future
D. frogs evolved from gilled ancestors

## Answer: D

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41. The persistent nucellus is a
A. thin remaining layer of nucellus
B. thick functional layer of integument
C. multilayer of pollen sac
D. thin tissue from by endosperm
42. What is common between vegetative reproduction and Apomixis
A. Both are applicable to only dicot plants
B. Both bypass the following phase
C. Both occurs round the year
D. Both products progeny identical to the parent

## Answer: D

## D Watch Video Solution

43. Antiretroviral drugs are useful in the treatment of
A. an RNA-containing viral-borne disease
B. $\lg E$ mediated allergy
C. Autoimmune disorders which affect joints
D. deficiency disease

## Answer: A

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44. From given statements with reference to the embryo, which of these are incorrect?
a. A typical dicot embryo consists of an embryonal axis
and 2 cotyledons.
b. The portion of the embryonal axis above the level of cotyledons is hypocotyl.
c. The protein below the level of cotyledons is epicotyl.
d. The epicotyl terminates with the stem tip, and the hypocotyl terminates with the root tip.
A. a and c
B. b and c
C. a and d
D. c and d

Answer: B
45. Which one of the following immune system components does not correctly match with its respective role?
A. Interferons - secreted by virus infected cells and protects non - infected cells from further viral infection
B. B-lymphocytes - produce antibodies into blood in
response to pathogens to fight with them
C. Macrophages - mucus secreting cells that trap
microbes entering in the body
D. $\lg A$ - present in colostrum in early days of
lactation to protect infant from diseases

## Answer: C

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46. The ability of a plant to follow a different pathway
and produce different structures in response to the environment is known as
A. Photoperiodism
B. vernalization
C. Photosynthesis
D. Plasticity

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47. Which of the following is incorrect regarding MALT?
A. It stands for mucosa-associated lymphoid tissue.
B. It is present in respiratory, digestive and urogenital tracts.
C. It constitutes about $50 \%$ of lymphoid tissue in human body.
D. The MALT of respiratory tract produce significant
enzymes and mucus.
48. Shoot bud formation is tissue culture is promoted by
A. high auxin - low sucrose
B. high $G A_{3}$ - high cytokinin
C. low auxin - high cytokinin
D. high auxin- low cytokinin

## Answer: C

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49. The cleavage of zygote begins in
A. ampulla
B. isthmus
C. Infundibulum
D. uterus

Answer: A

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50. sa
A. a - recombination, b-crossing over
B. a-recombination, b-linkage
C. a - linkage, b-recombination
D. a - linkage, b-mutation

## Answer: C

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51. The hormone which stimulates the 'let down' release of milk from Mother's breast when the baby is suckling is
A. Prolactin
B. Progesterone
C. Oxytocin
D. relaxin

Answer: C

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52. Mark the correct option.
A. Turner's syndrome $-45+\mathrm{XO}$
B. Thalassemia- $44+\mathrm{YO}$
C. Klinefelters syndrome - 44+XXY
D. Phenylketonuria-44+XYY

## Answer: C

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53. The seminal fluid coagulates on ejaculation due to
A. Sodium contents from prostatic secretion
B. sodium contents from Cowper's glands
C. Calcium and fibrinogen contents from prostatic
and seminal vesicles secretions, respectively.
D. secretions of epididymis

## Answer: C

54. A normal women whose father had haemophilia married a normal man. What is the change of occurrence of disease in the progeny?
A. $100 \%$
B. $50 \%$
C. $25 \%$
D. $75 \%$

Answer: C

## - Watch Video Solution

55. A statutory ban has been imposed on sexdetermination because
A. amniocentesis is an expensive procedure.
B. it is morally inappropriate to determine the sex of the child.
C. it accelerated the birth rate in the country.
D. to check female foeticides in the country.

## Answer: D

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56. Heterozygous tall and violent flower garden pea plants were selfed, and total 1200 plants are collected.

What will be the total number of plants with first dominant and second recessive traits?
A. 150
B. 675
C. 225
D. 450

## Answer: C

57. Which of the following statements is true about the contraceptive method given below?
A. It is a reversible method of birth control widely used by women in the country.
B. It is a surgical intervention in women which eliminates all chances of pregnancy.
C. In this procedure, a small incision is made in the abdomen to remove the uterus.
D. In this procedure, a small part of the vas deferens is removed or tied up.

## Answer: B

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58. Which of the following statements is incorrect with respect to sickle cell anaemia?
A. Homozygous individuals for HBA show the diseased character.
B. Heterozygous individuals are affected as well as
carriers.
C. Homozygous individuals for HbS remain unaffected.
D. Homozygous individuals for HbS exhibit sickle cell trait.

## Answer: D

## D Watch Video Solution

# 59. In plants, a low concentration of N, S and Mo causes 

A. inhibition of cell division
B. delay in flowering
C. death of tissue
D. both $A$ and $B$

## Answer: D

## D Watch Video Solution

60. Which of the following is considered as age- old cottage industry?
A. Animal husbandry
B. Beekeeping
C. Fisheries
D. Sericulture

## Answer: B

## - Watch Video Solution

61. MOET is method of:
A. Fish cultivation
B. Cloning in sheep
C. hybridization in cattle
D. birth control in humans

## Answer: C

## - Watch Video Solution

62. The cerebral cortex is greyish in appearance due to
A. the large number of cell bodies of neurons.
B. the cell body of neurons lacks myelin sheath.
C. the neuron cell bodies are concentrated here.
D. all of the above.

Answer: A
63. The Calvin cycle proceed in three stages:

1. Radiation, during which carbohydrate is formed at the expense of the Photochemically made ATP and NADPH.
2. Regeneration, during which the carbon dioxide acceptor ribulose-1,5-biphate is formed.
3. Carboxylation, during which the carbon dioxide combines with ribulose-1,5-biphosphate.

Identify the correct sequence.
A. $3 \rightarrow 1 \rightarrow 2$
B. $3 \rightarrow 2 \rightarrow 1$
C. $1 \rightarrow 2 \rightarrow 3$
D. $2 \rightarrow 1 \rightarrow 3$

## Answer: A

## - Watch Video Solution

64. Match the columns with respect to discovery of
photosynthesis

| Column I |  | Column II |
| :--- | :--- | :--- |
| (1)Action spectrum of <br> photosynthesis | (A)Julius Von <br> Sachs |  |
| (2)Production of glucose <br> when plant grow | (B)Joseph <br> Priestley |  |
| Only the green part of <br> (3) the plants that release <br> oxygen | (C)Englemann <br> on <br> Cladophora |  |
| (4)Role of air in the growth <br> of green plant | (D)Jan <br> Ingenhousz |  |

A. 1-B, 2-C , 3-D , 4-A
B. 1-C, 2-A, 3-D , 4-B
C. 1-C, 2-A, 3-B , 4-D
D. 1-C, 2-D, 3-A , 4-B

## Answer: B

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65. What kind of adaptation is seen in a large variety of marine invertebrates and fish that live great depths in the ocean?
A. Morphological adaptation
B. Behavioral adaptation
C. Biochemical adaptation
D. More than one option is correct

## Answer: C

## - Watch Video Solution

66. In the earlier classification system, bacteria, fungi,
ferns, gymnosperms and angiosperms are included under Plantae on the basis of
A. mode of nutrition
B. Presence of similar type of DNA
C. unicellular and multicellular characters
D. Presence of cell wall.

## Answer: D

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67. Which of following statements is correct with respect to slime molds?
A. They are saprophytic, body plasmodium is naked without cell wall , and spore is dispersed by air.
B. They are saprophytic , body plasmodium is
plasmodium is with cell wall, and spore is
dispersed by water.
C. They are parasitic, body plasmodium is with cell wall and spore is dispersed by water.
D. The are parasitic, body plasmodium is with cell wall and spore is dispersed by water .

## Answer: A

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68. Small pox, herpes, crown gall tumour, cretinism, curling , influenza, AIDS, mumps and chlorosis are various disease. Out of these, how many belong to animal and plants, respectively?
A. 6 to animal and 3 to plants
B. 7 to animal and 2 to plants
C. 3 to animal and 6 to plants
D. 5 to animal and 4 to plants

## Answer: A

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69. In mung bean, resistance to yellow mosaic virus and powdery mildew were induced by
A. selection breeding

## B. artificial cross

C. mutation breeding
D. pureline breeding

## Answer: C

## - Watch Video Solution

70. Activated sludge is
A. formed after sequential filtration and sedimentation in primary setting tank.
B. bacterial flocs settings after secondary treatment.
C. Passed into anaerobic sludge digester.
A. Only (A) is incorrect
B. Only (A) and (C) are incorrect
C. Only (B) and (C) are incorrect
D. (A) , (B) and (C) are incorrect

Answer: A

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71. Causes of extinction of stellar's sea cow of Russia and passenger pigeon is
A. over-exploitation by humans
B. alien species invasion
C. habitat loss and fragmentation
D. co-extinction

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72. Cryopreservation, seed bank, gene bank and wild safari parks are the methods of
A. ex-situ conservation of biodiversity
B. in-situ conservation of biodiversity
C. collection of different types of soil
D. taxonomical aids

Answer: A
73. Select the incorrect statement:
(a) species diversity increases as we move from the poles towards the equator.
(b) The number of species in tropical rain forests is minimum.
(c) Columbia has nearly 1400 species of birds.
(d) Diversity of communities over a landscape is termed
as .. diversity.
A. (a) and (b)
B. (c) and (d)
C. (b) and (d)
D. (a) and (c)

## Answer: C

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74. In India, 'ecosan' toilets are found in
A. West Bengal
B. Sikkim
C. Andaman and Nicobar
D. Kerala

Answer: D
75. Algal bloom cause
a. fish mortality.
b. deterioration of water quality.
c. increased oxygen in water body.
d. control of water pollution.
A. a and c
B. b and d
C. a and b
D. b and c

Answer: C

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76. a. Ramesh Chandra Dagar, a farmer of Sonipat, is associated with integrated organic farming and has recycled agricultural waste.
b. Ahmed Khan in Bangalore is associated with recycling of plastic into polyblend powder used to lay roads.

From given statements,
A. $a$ is correct,$b$ is incorrect
B. $a$ is incorrect , $b$ is correct
C. both a and b are correct
D. both $a$ and $b$ are incorrect

## Answer: C

77. Which of the following is a functional aspect of an ecosystem?
A. Stratification and species diversity
B. Productivity and decomposition
C. Energy flow and nutrient cycling
D. Both (B) and (C)

Answer: D

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78. Read the following statement. With respect to the ecological pyramid , mark the correct statements.
a. In most of the ecosystems, pyramids of number, energy and biomass are upright .
b. Producers are generally more in number or biomass
than herbivores in an upright pyramid.
c. Herbivores are less in number and biomass than carnivores in an inverted pyramid.
d. Energy content is higher at a lower trophic level than
that at a higher trophic level.
A. b and d are correct
B. a , b and c are correct
C. a, d and d are correct
D. All are correct

## Answer: D

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79. In hydrosere, the stages that come before and after the reed-swamp stage are, respectively,
A. Phytoplankton stage and submerged stage
B. submerged stage and submerged free-floating
stage
C. submerged free-floating plant stage and marshmeadow stage

# D. submerged free-floating plant stage and scrub 

stage

## Answer: C

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80. Which of the following information is not correctly

## matched?

```
Type of Species Nature
interaction A B
                                    Both the interacting
```



A.
B.

| Type of <br> interaction | Apecies |  |
| :--- | :--- | :--- |
| A | Bature |  |$|$| One of the |
| :--- |
| species is |
| benefitted, while |
| the other species |
| is unaffected. |

[^0]
## Answer: D

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81. Which of the following is incorrect?
A. Regulators- show homeostasis
B. Conformers - cannot maintain homeostasis
C. Partial regulators - have an ability to regulate upto
limited range
D. Conformers - show homeostasis

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82. Select the incorrect statement.
A. DNA from single cell is enough to perform DNA
fingerprinting analysis
B. DNA fingerprinting has much wider applications in
determining population and genetic diversities
C. The VNTR belongs to a class of satellite DNA
referred to as minisatellite
D. DNA fingerprint can be used to differentiate monozygotic twins

Answer: D

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83. If a sequence of non-template strand is $5^{\prime}$ -

ATGTGACGAG-3', the sequence of anticodon on tRNA will be
A. AUGUGACGAG
B. UACACUGCUC
C. ATGTGACGAG

## D. AUGUGTCCTA

## Answer: A

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84. If in a double stranded DNA, 15 pitches in a helix are present, then the number of total nucleotides in it will be
A. 150
B. 300
C. 600
D. Infinite

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85. Selectable marker is associated with
A. Plasmid DNA as vector
B. palindromic DNA
C. SNP
D. histone protein

Answer: A
86. The separated bands of DNA are cut out from the agarose gel and are extracted from the gel piece. This is known as
A. denaturation
B. extension
C. elution
D. recognition

## Answer: C

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87. Which of the following can be used to insert the recombinant DNA into the animal cell?
A. Agrobacterium
B. Microinjection
C. Biolistic
D. Gene gun

Answer: B

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88. A: Indian Government has set up organisation such
as GEAC (Genetic Engineering Approval Committee),
which will make decisions regarding the validity of GM research and safety of introducting GM organisms for public services.

R: Genetic modification of organisms can have unpredictable results when such organism are introduced into the ecosystem.
A. Both statements I and II are correct.
B. Statement I is correct but and statement II is incorrect.
C. Statement I is incorrect but and statement II is
correct.
D. Both statement I and II are incorrect.

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89. Enzyme-linked immunosorbent assay technique is based on the principal of interaction between
A. DNA and DNA probe
B. RNA and RNA probe
C. antigen-antibody
D. antigen and RNA

## Answer: C

90. Which of the following shows incorrect pairing?
A. Erythropoietin : peptide hormone
B. Gastrin : stimulates the secretion of HCL
C. Steroid : cortisol
D. Primary messenger : calcium ion

Answer: D

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[^0]:    Type of ${ }^{\text {Species }}$ Nature
    interaction A B

    Predation + - other species is
    C.

