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## BIOLOGY

## BOOKS - NTA MOCK TESTS

## NTA NEET SET 78

## Biology

1. Bacillus thuringiensis (Bt) is a bacterium of
A. Dirty water
B. Air borne
C. Soil
D. Surface of midgut

## Answer: C

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2. Ion carriers are located in
A. Nucleus
B. Cell wall
C. Cellular space
D. Plasma membranes

## Answer: D

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3. A drop of each of the following, is placed separately on four sides. Which of them will not coagulate?
A. Blood serum
B. Blood sample from the thoracic duct of

## lymphatic system

C. Whole blood from pulmonary vein
D. Blood plasma

## Answer: A

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4. Which of the following primate is the closet relative of humans?
A. Rhesus monkey
B. Orangutan
C. Gorilla
D. Lemur
5. DDT content in the water of a lake that supplies drinking water to the nearby villages is found to be 0.033 ppm . The kingfishers of that area reported to have 2 ppm of DDT. This phenomenon is known as :
A. Cultured Eutrophication
B. Global warming
C. Biomagnification
D. Eutrophication

Answer: C
6. in prokaryotes, the genetic material is
A. Closed, coiled and circular ssDNA with histones
B. Open,coiled,linear dsDNA without histones
C. Closed ,coiled, circular,dsDNA without histones
D. Linear,dsDNA with histones

## Answer: C

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7. Which of the following is the wrong function of the corresponding part in the angiosperm plant ?
A. Nucellus= Nourishment of developing embryo
sac
B. Pollen kit = protection of pollen grains from UV
rays
C. Filiform apparatus $=$ Secreting chemicals for attracting the pollen tube towards micropyle of ovule
D. Pollen tube = Formed by generative nucleus

## Answer: D

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## 8. In telophase I

A. Nuclear envelop breaks down
B. The nuclear membrane separates the nuclear

DNA from the cytoplasm
C. Each daughter cell has half the number of chromosomes
D. Both (b) and (c)

## Answer: D

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9. Which is not correctly matched ?
A. Lipase - Hydrolysis of fats
B. Isomerases - Joining of similar substrate and
management of substrate
C. Polymerase- chain elongation
D. DNA ligase - joins the DNA strand together by
catalyzing the formation of phosphoester
bonds.

## Answer: D

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10. Attractive forces of cell walls for water molecules is termed as
A. Adhesion
B. Cohesion
C. Osmosis
D. Plasmolysis

## Answer: A

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11. During transcription, if the nucleotide sequence of the DNA strand that is being coded is ATACG, then the nucleotide sequence in the $m$ RNA would be A. UAUGC
B. UATGC
C. TATGC
D. TCTGG

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12. Length of one coil of B-DNA helix is
A. 0.34 nm
B. 3.4 nm
C. $3.4 \AA$
D. $0.34 \AA$

Answer: B
13. Sporeine kills insects by inhibiting ion transport in the Midgut
A. Midgut
B. Foregut
C. Hindgut
D. None

Answer: A
14. At puberty, a female has more than 400,000 immature egg cells in her ovaries. Calculate the percentage of these eggs that will ovulate, assuming that 13 ovarian cycles occurs per year in her reproductive life span of 40 years.
A. $52 \%$
B. $0.13 \%$
C. 5.2
D. $13 \%$

Answer: B
15. The exchange of gasses in the alveoli of the lungs
takes place during respiration. Identify the labeling a-e
A. a- Air flows into and out of alveoli
b-Deoxygenated blood
c-oxygenated blood
d-oxygen diffuses into red blood cells
e-Carbon dioxide diffuses out of the plasma
B. a- Air flows out of alveoli
b- oxygenated blood
c-Deoxygenated blood
d-oxygen diffuses into red blood cells
e-Carbon dioxide diffuses out of the plasma
C. a- Air flows into and out of alveoli
b-Deoxygenated blood
c-oxygenated blood
d-Carbon dioxide diffuses out of the plasma
e-oxygen diffuses into red blood cells
D. a- Air flows out of alveoli
b- oxygenated blood
c-Deoxygenated blood

# d- Carbon dioxide diffuses out of the plasma 

## e- oxygen diffuses into red blood cells

## Answer: A

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16. The total number of bones in your right arm is
" " Or

Total number of bones in the hind limb of a man is
A. 30
B. 32
C. 35
D. 40

## Answer: A

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17. Blood capillaries are made of
A. Endothelium, connective tissue and muscle
fibres

## B. Endothelium and muscle fibres

C. Endothelium and Connective tissue

## D. Endothelium only

## Answer: D

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## 18. Dominant epistasis is shown by

A. Antirrhinum majus
B. Lathyrus odoratus
C. Mirabilis jalapa
D. None of the above
19. What helps in flowering

A. Cytochrome

B. ABA
C. Phytochrome
D. Ethylene

Answer: C

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20. The structure which is lateral and generally flattened, borne on stem is known as.........
A. Root
B. Branch
C. Leaf

D. Flower

## Answer: C

21. How many plants contain alternate phyllotaxy from given examples - Alstonia, China rose, Guava , Mustard, Calotropis and sunflower
A. Four
B. Three
C. Two
D. Five

Answer: B

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22. Match the terms given in column-I with their definitions in column-II and select the correct answer from codes give below:
A. A-3, B-1,C-2,D-4
B. $A-4, B-1, C-2, D-3$
C. $\mathrm{A}-1, \mathrm{~B}-2, \mathrm{C}-3, \mathrm{D}-4$
D. $\mathrm{A}-2, \mathrm{~B}-3, \mathrm{C}-4, \mathrm{D}-1$

Answer: B
23. Vinegar is obtained by double fermentation of starch or sugary material. The first step of fermentation is achieved by addition of saccharomyces cerevisiae and second step is achieved by the addition of
A. Acetobacter aceti
B. Lactobacillus lactis
C. Penicillium notatum
D. E.coli

## Answer: A

24. Which of the following is commonly used as a vector for introducing a DNA fragment in human lymphocytes?
A. $\lambda$ phage
B. Ti plasmid
C. Retrovirus
D. pBR 322

Answer: C

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25. The normal or polygonum type of embryo sac is
A. Bisporic eight nucleate
B. Monosporic four nucleate
C. Tetrasporic sixteen nucleate
D. Monosporic eight nucleate

## Answer: D

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26. Fehling's solution can detect presence of

## B. Glucose

C. Amino acids
D. Lipids

## Answer: B

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27. In guard cells, presence of potassium is essential for
A. Maintaining osmotic pressure
B. In controlling cell division

## C. In enzymatic reactions

D. All the above

## Answer: A

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28. The historic convention on Biological Diversity held in Rio de Janeiro in 1992 is known as
A. The earth summit
B. Montreal protocol
C. Geneva convention
D. Janerio convention

## Answer: A

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29. What is true of urea biosynthesis
A. Uric acid is starting point
B. Urea is synthesised in lysosomes
C. Urea cycle enzymes are located inside mitochondria
D. Urea is syntesised in kidney

## Answer: C

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30. Dinosaurs became extinct in
A. Silurian period
B. Jurassic period
C. Triassic age
D. Cretaceous period

Answer: D
31. Which among the following statement/s is/are INCORRECT?
I. Since the origin and form diversification of earth there were four episodes of extinction.
II. The current rate of extinction is 100 to 1000 times
faster than in the pre-human times.
III. Ecologists warn that if the present trend continues, nearly one-fourth of all the species on earth might be wiped out within the next 100 years.
A. I \& II
B. II \& III
C. I \& III

## Answer: C

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32. The maximum usable energy per molecule of glucose metabolised will be generated during
A. Aerobic respiration by germinating seeds
B. Production of methanol by enteric bacteria
C. Fermentation into ethanol by yeast
D. Glycolysis in the skeletal muscle of a sprinter performing a hundred metre dash

## Answer: A

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33. The hormone of the adrenal cortex which causes
$\mathrm{Na}^{+}$retention and $\mathrm{K}^{+}$excretion is
A. Corticosol
B. Corticosterone
C. Cortisol
D. Aldosterone

## Answer: D

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34. Select the correct option for the given figure.

I Emigration
A. II Mortality
$N$ Population
$I$ Emigration
B. II Mortality
$N$ Population
$I$ Immigration
II Mortality
C.

III Emigration
IV Natality
D. $I \quad$ Emigration

III Immigration

## Answer: D

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35. Some hyperthermophilic organisms that grow in highly acidic ( pH 2 ) habitats belong to the two groups
A. Eubacteria and archaea
B. Cyanobacteria and diatoms
C. Protists and mosses

## D. Liverworts and yeasts

## Answer: A

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36. The cells or tissues which constitute the pith of a dicot posses cell walls composed of
A. cellulose and pectin.
B. cellulose, hemicellulose and pectin.
C. only cellulose.
D. only lignin.

## Answer: C

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37. Heroin is a white, odourless, bitter crystalline compound which is obtained from the acetylation of a secondary metabolite. This metabolite is extracted from
A. Rauwolffia serpentina
B. Papaver somniferum
C. Cannabis sativa
D. Cajanus cajan

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38. Photochemical smog formed in congested metropolitan cities mainly consists of :
A. Ozone, peroxyacetyl nitrate and $\mathrm{NO}_{2}$
B. Hydrocarbons, $\mathrm{SO}_{2}$ and $\mathrm{CO}_{2}$
C. Smoke, peroxyacetyl nitrate and $\mathrm{SO}_{2}$
D. Hydrocarbons, ozone and $S O_{X}$
39. Which of the following is an example of a typical homopolysaccharide?
A. Lignin
B. Suberin
C. Inulin
D. Starch

## Answer: D

40. Identify the figures given below marked as $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and $D$.

A.
A
B
C
D
Volvox Chlamydomonas Laminaria Chara
B.
A
B
C
$D$
Chara
Laminaria
Volvox
Chlamydomonas
C.
A
B
C
D
Laminaria Volvox
Chlamydomonas
Chara
D.

# A <br> B <br> C <br> D <br> Chlamydomonas Chara Laminaria Volvox 

Answer: A

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On the basis of above pedigree chart, select the correct option

A. Autosomal recessive trait

B. Sex-linked recessive trait
C. Sex-linked dominant trait
D. Autosomal dominant trait

## Answer: D

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42. A homopolymer has only one type of building block called monomer repeated ' $n$ ' number of times.

A heteropolymer has more than one type of monomer. Proteins are heteropolymers made of amino acids. While a nucleic acid like DNA or RNA is
made of only 4 types of nucleotide monomers, proteins are made of
A. 20 types of monomers
B. 40 types of monomers
C. 3 types of monomers
D. Only one type of monomer

## Answer: A

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43. Diaphragms are contraceptive devices used by the females. Choose the correct option from the
statements given below
(i) They are introduced into the uterus
(ii) They are placed to cover the cervical region
(iii) They acts as physical barriers for sperm entry
(iv) They act as spermicidal agents.
A. (i) and (ii)
B. (i) and (iii)
C. (ii) and (iii)
D. (iii) and (iv)

## Answer: C

44. Estrogen and testosterone are steroid hormones. and are most likely to bind with
A. Membrane ions cannels
B. Enzyme-linked membrane receptors
C. G-protein linked membrane
D. Cytoplasmic receptors

## Answer: D

45. Biosphere reserves differ from national parks and wildlife sanctuaries because in the former
A. human beings are not allowed to enter.
B. People are an integral part of the system
C. Plants are paid greater attention that the animals.
D. living organisms are brought from all over the
world and preserved for posterity.

## Answer: B

46. Match the column I with column-II

Column I
Stem tendrils
Stem thorns
Opposite phyllotaxy China rose, mustard Alternate phyllotaxy Gourds, grapevines
A. $a-i v, b-i i, c-i, d-i i i$
B. $a-i v, b-i, c-i i, d-i i i$
C. $a-\mathrm{ii}, \mathrm{b}-\mathrm{i}, \mathrm{c}-\mathrm{iii}, \mathrm{d}-\mathrm{iv}$
D. $a-i v, b-i, c-i i i, d-i i$

## Answer: B

47. Which of the following is expected to have the highest value $\left(g m / m^{2} / y r\right)$ in a grassland ecosystem?
A. Secondary production
B. Tertiary production
C. Gross production (GP)
D. Net production (NP)

## Answer: C

48. All stages of Plasmodium are digested in stomach of female Anopheles except
A. Sporozoites
B. gametocytes
C. erythrocytes
D. Merozoites

Answer: B

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49. Genetic traits of pea plants are note as follows :
(a) W -round, w-wrinkled
(b) Y-yellow, y - green
(c) T-Tall , t-dwarf

Which of the following is the genotype for a dwarf, winkled and yellow speeded plant?
A. Wwyyrr
B. RrYyTt
C. ttwwYy
D. ttWwTt
50. Crop improvement is possible through
A. Judicious combination of evaluation and
selection hybridisation and testing and
commercialisation
B. Selection and hybridisation only
C. Scientific improvement of cultivated plants
D. Selection and testing of superior recombinants

## Answer: A

51. A person passes much urine and drinks much water but his blood glucose level is normal. This condition may be the result of
A. A reduction in insulin secretion from pancreas
B. A reduction in vasopressin secretion from posterior pituitary
C. A fall in the glucose concentration in urine
D. An increase in secretion of glucagon

Answer: B
52. Choose the correct match from the following.
A. smooth muscles: intercalated discs
B. areolar tissue : framework for epithelium
C. neuroglial cells : lacunae
D. adipose tissue : myofibrils

Answer: B
53. Appearance of vegetative propagules from the nodes of plant such as sugarcane and ginger is mainly because
A. nodes are shorter than internodes
B. nodes have meristematic cells
C. nodes are located near the soil
D. nodes have non - photosynthetic cells

Answer: B

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54. Which of the following statement is not correct for the vacuoles?
A. Contractile vacuoles are helpful in excretion
B. Usually tonoplast facilitates the transport of
ions against the concentration gradient into
the cytoplasm
C. Food vacuoles are formed by engulfing the food particles
D. Sap vacuole is bound by a single membrane
55. which of these is not an important component of initiation of parturition in humans ?
A. Increase in estrogen and progesterone ratio
B. Synthesis of prostaglandins
C. Release of oxytocin
D. Release of prolactin

Answer: D
56. Which one of the following phyla is correctly matched with its two general characteristics?
A. Arthropoda - Body divided into head , thorax and abdomen and respiration by tracheae
B. Chordata - Notochord at some stage and separate anal and urinary openings to the outside
C. Echinodermata - Pentamerous radial symmetry
and mostly internal fertilisation
D. Mollusca - Normally viviparous and locomotion
through polyp and medusa

## Answer: A

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57. Two cross sections of stem and root appear simple, when viewed by naked eye. Not under microscope they can be differentiated by
A. Exarch condition of root and stem
B. Endarch condition of stem and root
C. Endarch condition of root and exarch condition of stem
D. Endarch condition of stem and exarch condition of root

## Answer: D

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58. The black pigment in the eye, which reduces the internal reflection, is located in
A. Retina
B. Iris
C. Sclerotic

## D. Cornea

Answer: A

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59. In Hydra , the neural organisation is comprised of
A. a network of neurons
B. CNS and PNS
C. only CNS
D. only PNS
60. Among the members of the list given below, how many plants have superior ovary?

China rose , mustard brinjal , potato , guava, cucumber, onion and tulip
A. Six
B. Three
C. Four
D. Five

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61. Hormone that stimulates stomach to secrete gastric juice is
A. gastrin
B. enterogastrone .
C. secretin.
D. cholecystokinin.

Answer: A
62. Fermentation is anaerobic production of
A. Protein and acetic acid
B. Alcohol , lactic acid or similar compounds
C. Ethers and acetones
D. Alchohol and lipoporteins

## Answer: B

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63. Which one of the following structures in Periplaneta is correctly matched with its function ?
A. Hepatic caeca - absorbs digested food
B. Alary muscles - contraction of spiracles
C. Spermatheca - stores sperms in males
D. Supra - oesophageal ganglion - Supplies nerves

to antennae

## Answer: D

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64. What is meant by autogamy?
A. Occurrence of male and female sex organs on the same flower
B. Germination of pollens within the anther
C. Transfer of pollens from anther to the stigma within the same flower
D. Transfer of pollens from one flower to another on the same plant

Answer: C

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65. What of the following is incorrect about the chromosomal theory of inheritance?
A. It was proposed by Sutton and Boveri in 1902.
B. The pairing and separation of a pair of chromosomes would lead to the segregation of a pair of factors they carried.
C. The behaviour of chromosomes was non -
parallel to the behaviour of genes and used
chromosome movement to explain Mendel's
laws

# D. Sutton united the knowledge of chromosomal 

segregation with Mendelian principles and celled it the chromosomal theory of inheritance.

## Answer: C

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66. The smut of maize is caused by
A. Claviceps
B. Alternaria

## C. Phytophthora

D. Ustilago

## Answer: D

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67. The pyramid of energy in a forest ecosystem is:
A. always upright
B. always inverted.
C. both upright and inverted
D. None of the above

## Answer: A

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68. In which of the following only Ps I is found ?
A. Stroma
B. Granal thylakoids
C. Stromal lamella
D. Matrix

Answer: C
69. The rate at which light energy is converted into chemical energy of organic molecules, is the ecosystem's
A. Net primary productivity
B. Gross secondary productivity
C. Net secondary productivity
D. Gross primary productivity

## Answer: D

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70. Which of the following characteristics represent 'Inheritance of blood groups' in humans?
a. Dominance
b. Co-dominance
c. Multiple allele
d. Incomplete dominance
e. Polygenic inheritance
A. ii,iv and v
B. i, ii and iii
C. ii , iii and v
D. i, iii and v
71. Name the parts A, B , C , D and E in the given diagram.

A. A - Germ pore , B - Generative cell , C - Intine , D

- Exine, E-Vegetation cell
B. A - Germ pore , B - Generative cell , C-Exine , D Intine, E-Vegetation cell
C. A - Intine , B - Exine , C - Germ pore , D -

Generative cell , E - Vegetation cell
D. A - Exine , B - Intine , C - Vegetation cell , D -

Germ pore, E-Generative cell

Answer: D

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72. Cell aggregate plan is found in
A. Cnidarians
B. Sponges
C. Roundworms
D. Flatworms

Answer: B

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73. NADP is converted into $N A D P H_{2}$ in
A. Photosystem - I
B. Non-cyclic photophosphorylation
C. Calvin cycle
D. photosystem - II

## Answer: B

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74. In the given figure, identify $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ and E respectively.
A. A-Pubis , B-Acetabulum , C-llium , D-Ischium
, E-Pubic symphysis
B. A - Sacrum , B - Coccyx , C - Pubic Symphysis, D -

Pubis, E-Ischium
C. A - Coccyx , B - Sacrum , C - Pubic symphysis , D -

Pubis, E-Ischium
D. A - Ilium , B - Sacrum , C - Pubic symphysis, D -

Ischium , E-Pubis

Answer: B

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75. Organisms which are indicator of $\mathrm{SO}_{2}$ pollution of air
A. Mosses
B. Puffballs
C. Lichens
D. Mushrooms

## Answer: C

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76. The application of microbial metabolism to trensform simple raw materials into valuabale products is
A. gel electrophoresis.
B. biotechnology
C. downstream processing .
D. molecular cleaving.

## Answer: B

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77. For packing of a negatively charged DNA, a positively charged histone molecules rich in basic amino acids are required. This histones are formed during :
A. $G_{1}$-phase
B. $G_{2}$-phase
C. S-phase
D. $G_{0}$-phase

## Answer: C

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78. The change of the lighter-coloured variety of peppered moth (Biston betularia) to its darker variety (Biston carbonaria)is due to
A. mutation
B. regeneration
C. genetic isolation
D. temporal isolation

## Answer: A

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79. A male human is heterozygous for autosomal genes $A$ and $B$ and is also hemizygous for haemophilic gene $h$. What proportion of his sperms will be abh?
A. $\frac{1}{8}$
B. $\frac{1}{32}$
C. $\frac{1}{16}$
D. $\frac{1}{4}$

Answer: A

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80. Pruning of plants promotes branching because
the axillary buds get sensitized to
A. Ethylene

# B. Gibberellin 

## C. Cytokinin

D. Indole acetic acid

## Answer: C

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81. Plants, which produce characteristic pneumatophores and show vivpary belong to
A. Mesophytes
B. Halophytes

## C. Pasmmophytes

D. Hydrophytes

## Answer: B

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82. Which of the following is a correct sentence ?
A. In gymnosperms endosperm is diploid and in angiosperms it is haploid.
B. In gymnosperms endosperm is haploid and in angiosperms it is triploid.
C. In gymnosperms endosperm is haploid and in angiosperms it is diploid.
D. Endosperm is triploid in both gymnosperm and angiosperms .

## Answer: B

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83. Which one of the following is a matching pair of centrain organisms and the kind of association ?
A. Shark and sucker fish - ammensalism
B. Algae and fungi in lichens - mutualism
C. Orchids growing on tress - mutualism
D. Cusucta (dodder) growing on other flowering plants - epiphytism

## Answer: B

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84. In lac operon, promoter gene provides the binding site for
A. $\beta$-galactosidase

## B. Lactose

## C. Repressor protein

D. RNA polymerase

## Answer: D

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85. An example of drupe is
A. mango.
B. wheat.
C. pea.
D. tomato.

Answer: A

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86. Which one of the following is an opiate narcotic ?
A. Barbiturates
B. Morphine
C. Amphetamines
D. LSD
87. Which of the following method of contraception
is effective only up to a maximum period of 6 months following parturition?
A. Coitus interruptus
B. Locational amenorrhea
C. Periodic abstinence
D. Condoms

Answer: B
88. Which of the following gland is homologous of Bartholin's gland and helps in lubrication of penis ?
A. Seminal vesicle
B. Prostate gland
C. Cowper's gland
D. Both (A) and (C)

## Answer: C

89. Which of the following technique can be used for introduction of hydrophilic recombinant DNA through the cell membranes of a host cell ?
A. Microinjection
B. Gene gun
C. Heat shock method
D. All of these

Answer: D

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90. Which of the following disease is characterized by damage to alveolar sac and is treated by the protein $\alpha-1$ antitrypsin ?
A. Cancer
B. Rhematiod arthritis
C. Emphysema
D. ADA deficiency disease in children

## Answer: C

