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## BIOLOGY

## BOOKS - NTA MOCK TESTS

## NTA NEET TEST 111

## Biology

1. Growth can be measured in various ways. Which of
these can be used as parameters to measure growth?
A. Increase in cell number
B. Increase in cell size
C. Increase in surface area
D. All of the above

## Answer: D

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2. Fruits developed form polycarpellary apocarpous ovary of a flower are categorised as
A. simple fruit
B. Composite fruit
C. aggregate fruit
D. multiple fruits

## Answer: C

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3. In old trees, central dark coloured, non-conducting part of secondary xylem is referred to as
A. heartwood
B. sapwood
C. softwood
D. hardwood

Answer: A
4. A cell placed in hypertonic solution will
A. Endosmosis
B. Exosmosis
C. Deplasmolysis
D. No change

Answer: B

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5. Select the incorrect statement about the essential element:
I. The element may not be necessary for normal growth and reproduction.
II. The requirement of the element must be specific and is replaceable by another element.
III. The element must be directly involved in the metabolism of the plant.
IV. In the absence of the element, the plants do not complete their life cycle.
A. I \& II
B. I \& IV
C. III \& IV
D. I \& III

## Answer: A

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6. Light energy is converted into chemical energy
during the light-dependent phase and chemical energy is used to
A. help in the photolysis of water
B. produce ATP and $\mathrm{NADPH} \mathrm{H}_{2}$
C. reduce carbon dioxide to carbohydrate during the light-independent phase
D. both (a) and (b)

## Answer: C

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7. In the electron transport system present in the inner mitochondrial membrane complexes I and IV are respectively
A. NADH dehydrogenase and $F A D H_{2}$
B. $F A D H_{2}$ and $N A D H$ dehydrogenase
C. NADH dehydrogenase and cytochrome oxidase

## D. NADH dehydrogenase and ATP synthase

## Answer: C

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8. In an experiment, one set of plants were exposed to the day-night period but with a dark period interrupted by the flash of light did not produce the flower. Such a plant is referred to as
A. long day plants
B. day-neutral plants
C. indeterminate plants

## D. short day plants

## Answer: D

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9. Bacteria reproduces by
A. binary fission
B. producing spores
C. a sort of sexual reproduction by adopting a primitive type of DNA transfer from one bacterium to the other.

## D. all of these

## Answer: D

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10. In Phaeophyceae, the gametes are
A. pyriform and bear 2 flagella (one longitudinal and another transverse)
B. pear-shaped and bear 2 flagella that are laterally
attached
C. pyriform and bear 2-8, equal and apical flagella
D. pear-shaped and bear 2-8, equal and apical flagella

## Answer: B

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11. All organisms are 'aware' of their surroundings.

Hence, all organisms can
A. handle chemicals entering their bodies
B. be self-replicating, evolving and self-regulating
C. arise as a result of interactions among the molecular components

# D. be linked to one another by the sharing of the 

 common genetic materialAnswer: A

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12. Plastids are not found in
A. fungi
B. bacteria
C. blue-green algae
D. all of these

## Answer: D

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13. Which of the following hold true for the pachytene stage of meiotic cell division?
A. This stage leads to genetic recombination, hence variations in sexually reproducing organisms.
B. In this stage, the process of exchange of genetic material between sister chromatids of nonhomologous chromosomes takes place.

# C. This stage takes place only in haploid cells of the 

## body formation eg. Gametes

D. All of these

## Answer: D

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14. Soap box-like overlapping shells are found in the cell walls of
A. dinoflagellates
B. protozoan
C. diatoms

## D. euglenoids

## Answer: C

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15. Which of the following is not correct?
A. The megaspore mother cell is differentiated from one of the cells of the nucleus.
B. The megaspore mother cell divides meiotically to
form four megaspores.
C. One of the megaspores enclosed within the megasporangium develops into a multicellular female gametophyte.
D. The multicellular female gametophyte is not retained within the megasporangium

## Answer: D

## - Watch Video Solution

16. Lysosomes are so-called as they have
A. hydrolytic enzymes
B. Oxidizing enzymes
C. respiratory enzymes
D. carboxylating enzymes

## Answer: A

## - Watch Video Solution

17. The minimum number of chiasmata in a bivalent is/are
A. One
B. Two
C. Three

D. Four

## Answer: A

## - Watch Video Solution

18. In guava, cucumber, and ray florets of sunflower, the ovary is
A. superior
B. inferior
C. half inferior
D. half superior

## - Watch Video Solution

19. periderm is produced by
A. vascular cambium
B. fascicular cambium
C. phellogen
D. intrafascicular cambium

## Answer: C

## 20. Acid concentration in CAM plants is more at

A. night
B. daytime
C. dawn
D. dusk

## Answer: A

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21. RQ of proteins, carbohydrates, fats and organic acids are in order
A. It 1, 1, It 1 , gt 1
B. gt 1, It 1, 1, 1
C. 1,1,0,-1
D. 0 , It 1, 1, gt1

## Answer: A

## D Watch Video Solution

22. Plant grwoth hormones extracted from a fungus and a fish are respectively
A. Gibberellins and Zeatin
B. Ethylene and cytokinin
C. Auxin and 2, 4-D
D. Gibberellin and kinetin

## Answer: D

## D Watch Video Solution

23. In which group of fungi, conidia are produced exogenously on conidiophores?
A. Ascomycetes
B. Phycomycetes
C. Deuteromycetes
D. Basidiomycetes

## Answer: A

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24. One key function of nuclear pores is to
A. aid in the production of new nuclei
B. allow cells to communicate with each other
C. form connections between different organelles
D. allow molecules like proteins to move in and out of the nucleus

## Answer: D

25. When stamens are attached to perianth, it is known as
A. epipetalous
B. episepalous
C. gynandrous
D. epiphyllous

## Answer: D

26. Which one of the following is CORRECT for Vallisneria?
(1) it grows in freshwater
(2) Female flowers or pollen grains reach the surface by a long stalk
(3) Male flowers are released on the the surface of the water
(4) Pollen grains are carried passively by water currents
A. only 1
B. only 1 and 2
C. only 1,2 and 3
D. 1,2,3 and 4

## Answer: D

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27. If an individual having the genotype $A a B b C c$ is selfed, how many squares will be required to determined the genotype of the population by Punnett's checker board method?
A. $8 \times 8$
B. $2 \times 2$
C. $4 \times 4$
D. $1 \times 8$

## Answer: A

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28. In vegetative propagation by tubers, which of following remains constant through generations
A. Morphology
B. Vigour only
C. Vigour and morphology
D. Morphology vigour and disease resistance

## Answer: D

## D Watch Video Solution

29. Which of the following is an incorrect statement?
A. Chemically, adenine is 6 amino purine
B. Cytosine and adenine are purine bases
C. Two DNA strands are antiparallel due to hydrogen bonds holding them together
D. Pitch of dsDNA is 3.4 nm

## Answer: B

30. An $\alpha$ - globin chain is coded by the gene present on chromosome.
A. $10^{t h}$
B. $12^{\text {th }}$
C. $14^{\text {th }}$
D. $16^{t h}$

Answer: D

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31. The piece of plant used in tissue culture is called
A. explant
B. somaclone
C. inoculant
D. clone

## Answer: A

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32. Which of the following statement is CORRECT?
A. Spirullina is a biopesticide.
B. Propionibacterium shermanii is involved in the formation of Swiss cheese
C. Germinating barley seeds are used in the preparation of Toddy.
D. Secondary treatment of sewage involves the
vigorous growth of anaerobic microbes into fiocs.

Answer: B

## D Watch Video Solution

33. In commensalism,
A. both partners are benefited
B. both partners are harmid
C. weaker is benefited while stronger in unharmed
D. weaker is harmed while stronger is benefited

## Answer: C

## D Watch Video Solution

34. Which of the following processes of decomposition produces a substance resistant to microbial action?

A. catabolism

B. mineralisation

## C. humification

D. leaching

## Answer: C

## D Watch Video Solution

35. The junction between ovule and funiculus is called
the
A. placenta
B. hilum
C. raphe
D. chalaza

## D Watch Video Solution

36. A test cross is performed to distinguish between
A. two homozygous forms
B. Two heterozygous forms
C.a homozygous dominant and a heterozygous
form
D. a homozygous recessive and the heterozygous

## Answer: C

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37. Match Column-I with Column-II and select the

CORRECT option from the codes given below.

|  | Column-I |  | Column-II |
| :--- | :--- | :--- | :--- |
| (1) | River Popper <br> hypothesis | (i) | Alexander <br> von <br> Humboldt |
| (2) | Long-term ecosystem <br> experiments using <br> outdoor plots | (ii) | David <br> Tilman |
| (3) | Species-area <br> relationships | (iii) | Paul <br> Ehrlich |

A. (1) - (iii), (2) - (i) , (3) - (ii)
B. (1) - (iii), (2) - (ii), (3) - (i)
C. (1) - (i), (2) - (iii) , (3) - (ii)
D. (1) - (ii), (2) - (iii), (3) - (i)

Answer: B

## - Watch Video Solution

38. High value of BOD (Biochemical Oxygen Demand) indicates that:
A. water is highly polluted
B. water is less polluted

# C. consumption of organic matter in the water is 

 higher by the microbes.D. water is pure

## Answer: A

## - Watch Video Solution

39. Select the incorrect statement about DNA fingerprinting among the following.
A. It involves identifying differences of repetitive DNA
B. The small peaks formed during the density

## gradient of DNA are called satellite DNA

C. Satellite DNA codes for proteins which forms a large portion of the human genome.
D. Polymorphisms are inheritable from parents to children

## Answer: C

## D Watch Video Solution

40. During his experiments with Drosophila, Morgan
A. the genes for linkage were located on the $Y$ chromosome
B. If two genes in a dihybrid cross were situated on
the same chromosome, the proportion of non-
parental gene combination were much higher
than the parental type
C. The distance between genes couldn't be measured using the frequency of recombination
between gene pairs on the same chromosome.
D. When genes were grouped on the same chromosome, very tightly linked genes showed
very low recombination while loosely linked genes showed higher recombination

## Answer: D

## D Watch Video Solution

41. Which one of the following is not true about antibiotics
A. The first antibiotic was discovered by Alexander

Fleming.
B. The term 'antibiotic' was coined by S. Waksman in 1942.
C. Some persons can be allergic to a particular antibiotic.
D. Each antibiotic is effective only against one particular kind of pathogen.

## Answer: D

## D Watch Video Solution

42. Exponential growth occurs when there is
A. a great environmental resistance
B. no environmental resistance
C. no biotic potential
D. a fixed carrying capacity

## Answer: B

## D Watch Video Solution

43. in a particular geographical area. If leopards and
lions feed on similar prey, they may show $\qquad$
A. interspecific struggle
B. intraspecific struggle
C. commenslism
D. mutualism

## Answer: A

## D Watch Video Solution

44. Which of the following causes of the Evil Quartet involves the combination loss of a coevolved plantpollinator mutualism?
A. farmentation
B. alien species invasion
C. over-exploitation
D. co-extinction
45. Sanitary landfill were adopted as the substitute for
A. sewage
B. biomagnification
C. eutrophication
D. open-burning dumps

## Answer: D

46. Select FALSE statement from the following.
A. A persistent nucellus is called a perisperm.
B. The integuments of an ovule harden as tough protective seed coats
C. The micropyle remains as a small pore in the seed coat and facilitates entry of oxygen and water into seed during germination.
D. The general metabolic activity of the embryo is
high post-fertilization

## Answer: D

47. In pigs, white coat (W) is dominant to black (w). Two white pigs are breed to produce 9 white and 2 black pigs. What are the genotype of the parents?
A. $W W \times W W$
B. $W W \times W w$
C. $W w \times W w$
D. $w w \times w w$

## Answer: C

48. Select the incorrectly matched pair.
A. Denaturation - Separation of DNA strands
B. Okazaki fragments - Lagging strand
C. Avery, Macleod and McCarty-Experimental proof that DNA replication is semi-conservative
D. High melting point - High G.C content of DNA

## Answer: C

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49. Gross primary productivity is the
A. rate at which organic molecules are formed in a heterotroph
B. rate of consuming organic molecules by an autotroph
C. rate of storage of organic compounds in an autotroph
D. rate of formation of organic molecules by an autotroph

## Answer: D

50. Which of the following is not an invasive alien species in the Indian context?
A. Lantana
B. Cynodon
C. Parthenium
D. Eichhornia

## Answer: B

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51. Pollen grains can be preserved as fossil because
A. they vary from species to species
B. they have a wide variety of architecture.
C. their wall is made up of sporopollenin
D. they exhibit a fascinating array of patterns and design

## Answer: C

## D Watch Video Solution

52. When a wheat variety of red karnels (homozygous
for two nonallelic and independent dominant genes) is
crossed with white kernelled wheat (homozygous for
two recessive nonalleic independent genes), the phenotypic ratin in $F_{2}$ generation would be
A. $9: 7$
B. 1:10:4:1
C. 1:4:6:4:1
D. $1: 2: 4: 2: 4: 2: 1$

## Answer: C

53. What indicates ' $A$ ' in the figure below?

A. Pollen grains
B. Pollen sacs
C. Generative cell
D. Vacuoles

Answer: A
54. Which of the following statements does not hold true for restriction enzyme ?
A. They recognize a palindromic nucleotide sequence
B. All restriction enzymes are endonucleases
C. These enzymes are isolated from viruses and
several eukaryotic protists
D. They produce the same kind of sticky ends in different DNA molecules.

## - Watch Video Solution

55. Which of the following epithelium lines the moist surface of the buccal cavity?

# A. Pseudostratified non-keratinized <br> squamous 

epithelium
B. Stratified non-keratinized squamous epithelium
C. Cuboidal epithelium
D. Stratified columnar epithelium

## Answer: B

56. Match the columns :

|  | Column I |  | Column II |
| :--- | :--- | :--- | :--- |
| (a) | Parturition | (p) | Attachment of <br> blastocyst to <br> endometrium |
| (b) | Gestation | (q) | Release of egg from <br> Graafian follicle. |
| (c) | Ovulation | (r) | Delivery of baby from <br> uterus |
| (d) | Implantation | (s) | Duration between <br> conception and birth |
| (e) | Conception | (t) | Formation of zygote <br> by fusion of egg and <br> sperm |
| (u) | Stoppage of <br> ovulation and <br> menstruation |  |  |

A.

$$
(a)-(q),(b)-(s),(c)-(p),(d)-(t),(e)-(r)
$$

B.

$$
(a)-(s),(b)-(r),(c)-(p),(d)-(t),(e)-(q)
$$

C.

$$
(a)-(r),(b)-(u),(c)-(q),(d)-(s),(e)-(t)
$$

D.

$$
(a)-(r),(b)-(s),(c)-(q),(d)-(p),(e)-(t)
$$

## Answer: D

57. The characteristic feature of anamnestic response is
A. a highly intensified strong response which leads
to a high titre of antibodies.
B. $\lg M$ is the dominant antibody in the body
C.a low intensity of antibodies which takes a longer time to establish immunity
D. Both (A) and (C )

## Answer: A

58. Which one of the following categories of animals, is correctly described with no single exception in it ?
A. All reptiles posses scales, have a threechambered heart and are poikilothermal
B. All bony fishes have four pairs of gills and an operculum on each side.
C. All sponges are marine and have collared cells.
D. All mammals are viviparous and possess diaphragm for breathing.

## Answer: B

59. In the internal ear, the 'organ of corti' which bear hair cells is located in
A. sacculus
B. scala media
C. scala tympani
D. scala vestibule

Answer: B

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60. The mechanism of action of a steroidal hormone on target cell is established through the
A. formation of secondary messengers
B. activation of transcriptional apparatus.
C. attachement with cytosolic receptor protein
D. regulation of gene expression

## Answer: D

61. Total number of facial bones are of which_____are paired.
A. 14,7
B. 16,5
C. 14,6
D. 16,6

Answer: C

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62. Which of the following statements is INCORRECT about Nirodh?
A. Protect the user from contracting AIDS
B. They are used for conception
C. They are used just before coitus so that ejaculated seman would not enter female reproductive tract.
D. They are made of thin rubber sheath.

## Answer: B

63. In the case of peppered moth (Biston betularia) the black-coloured from became dominant over the light-
coloured form in England during industrial revolution.
This is an example of
A. Stabilising natural selection
B. Directional natural selection
C. Disruptive natural selection
D. Both (A) and (B)

Answer: B

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64. Filling of ventricles with the blood takes place during:
A. Ventricular diastole only
B. Atrial systole only
C. Ventricular and atrial systole
D. Joint diastole and atrial systole

## Answer: D

## D Watch Video Solution

65. Lipids have a molecular mass of:
A. Less than 800 daltons
B. 800-200 daltons
C. 2000-5000 daltons
D. greater than 10,000 daltons

## Answer: A

## D Watch Video Solution

66. In man, during inspiration, the dome-shaped diaphragm becomes:
A. More convex anteriorly
B. More concave posteriorly
C. More or less flat
D. Contract to small size

## Answer: C

## D Watch Video Solution

67. Mark the incorrect statement regarding the head of the cockroach.
A. It is hypognathous.
B. Formed by the fusion of six embryonic segments
C. Head bears appendages forming biting and chewing type of mouth parts

# D. A pair of broad antennae arise from 

 membranous sockets lying in front of eyes.
## Answer: D

## D Watch Video Solution

68. Which group represents external genitalia of human female?
A. Labia majora, labia minora, oviduct
B. Labia minora, clitoris, vegina
C. Clitoris, labia majora, vagina
D. Labia majora, labia minora, clitoris

## Answer: D

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69. Read the following statements and find the number of CORRECT statements.
P. Cancerous cells compete with normal cells for nutrients.
Q. With repeated use of drugs, the tolerance level of the receptors present in our body increases.
R. Cocaine enhances the action of the neurotransmitter dopamine.
S. Cannabinoids are abused by sportspersons.
A. One
B. Two
C. Three
D. Four

## Answer: B

## D Watch Video Solution

70. One of the representative of Phylum arthropoda is
A. Dog fish
B. Flying fish

## C. Cuttlefish

D. Silverfish

## Answer: D

## D Watch Video Solution

71. The brain stem is made up of
A. midbrain , pons, cerebellum
B. midbrain, pons , medulla oblongata
C. diencephalon, medulla oblongata, cerebellum
D. cerebellum, cerebrum , medulla oblongata

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72. Which of the following is not a function of insulin ?
A. Increases the oxidation of glucose in the cells
B. Initiates the conversion of glycogen to glucose
C. Increases the permeability of cell membrane to glucose
D. Initiates the formation of animal storage polysaccharide

Answer: B

## - Watch Video Solution

73. The joints between the carpal bones are
A. Fibrous
B. Cartilagenous
C. Gliding
D. Hinge

Answer: C
(D) Watch Video Solution
74. Amniocentesis is used for determining :-
A. Heart disease of the embryo
B. Brain disease of the embryo
C. Hereditary disease of the embryo
D. All of the above

## Answer: C

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75. Which is CORRECT regarding convergent evolution?

# A. Convergent evolution indicates common 

 ancestryB. Thorn of Bougainvillea and tendrils of Cucurbita are examples of convergent evolution
C. Selection of similar adaptive features in different
groups of organisms but towards the same function is convergent evolution.
D. Homologous organs are result of convergent evolution.

Answer: C
76. How can you estimate the value of functional residual capacity (FRC) ?
A. TV + IRV
B. $E R V+R V$
C. $\mathrm{VC}+\mathrm{RV}$
D. $T V+I R V+E R V$

Answer: B

D Watch Video Solution
77. Which of the following is correctly paired?
A. Basophils - Are not involved in inflammatory or allergic reactions
B. Eosinophils - Stained by methylene blue
C. Monocytes - Largest leucocytes
D. Neutrophils - Kidney shaped nucleus

## Answer: C

## - Watch Video Solution

78. Select the incorrect statement.

# A. B.thuringiensis forms protein crystals that 

 contain insecticidal proteins during a particular phase of their growth.B. The proteins encoded by the genes crylAc and cryllAb control the cotton bolloworms, that of crylAb controls corn borer.
C. Bacillus thuringiensis produce proteins that kill certain insects such as lepidopterans (flies , mosquitoes), coleopterans (beetles) and dipterans (tobacco budworm, armyworm).
D. The activated toxin binds to the surface of midgut epithelial cells and creates pores.

## Answer: C

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79. Select the statement that is not correct.
A. Tubular reabsorption takes place by passive and active transport.
B. ADH decreases the reabsorption of water in the DCT and collecting duct.
C. Cortical nephrons control plasma volume under normal water supply.

# D. A normal adult person secretes about 1.5 liters of 

 urine in 24 hours.Answer: B

## D Watch Video Solution

80. Under which of the following category, the given
structure of amino acid can be classified?

A. Acidic

B. Basic

C. Neutral

## Answer: A

## (D) Watch Video Solution

81. The axial filament of the sperm arises from :
A. Proximal centriole
B. Distal centriole
C. Acrosome
D. Nucleus

Answer: B

- Watch Video Solution

82. Read the statement and choose the correct option
(I) Secretion of interferons is a physiological barrier of innate immunity
II. T-lymphocytes are responsible for cell mediated immunity
III. Injection given against snake venom is a type of active immunisation
IV. Antibodies produced during allergic reactions are of IgA type
A. i and ii are correct
B. ii and iv alone are correct
C. iii along is correct
D. ii alone is correct

Answer: D

## (D) Watch Video Solution

83. Which of the followig hormones passes through
"route-A" shown in the adjacent figure?

A. Oxytocin and vasopressin
B. TSH and prolactin
C. GnRH and somatosatin
D. GH and gonadotropins

## Answer: C

## D Watch Video Solution

84. Land reptiles that went back into water evolve into
fish-like reptiles probably 200 mya. Example of such
reptile is:
A. Tyrannosaurus rex
B. Ichthyosaurs
C. Archaeopteyx
D. Stegosaurus

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85. Which of the following is not a component of downstream processing
A. Separation
B. Purification
C. Preservation
D. Expression

Answer: D
(D) Watch Video Solution
86. One molecule of glucose and one molecule of galactose form:
A. Lactose
B. Maltose
C. Sucrose
D. Inulin

## Answer: A

## D Watch Video Solution

87. For using Ti plasmid as a vector, researchers have eliminated its
A. ability of transfer DNA into plants while keeping its tumour causing properties.
B.ability to cause tumor while keeping its properties to transfer DNA into plants.
C. ability to transfer DNA into plants while keeping its insecticidal properties
D. insecticidal properties while keeping its cancer
causing properties.

## Answer: B

88. which of the following statements about human kidneys are incorrect?
I. The cortex extends in between the medullary pyramids as renal columns called Columns of Bertini.
II. Inside the kidney, there are two zones, an outer cortex and an inner medulla.
III. Towards the centre of the inner convex surface of
the kidney is a notch called hilum through which
ureter, blood vessels and nerves enter.
IV. Human kidneys extend from the $12^{\text {th }}$ thoracic vertebra to the $5^{\text {th }}$ lumbar vertebra.
A. I and III
B. II and IV

## C. III and IV

D. I and II

## Answer: C

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89. The first clinical gene therapy was given for treating :
A. Tetany
B. Rheumatoid arthritis
C. Cystic fibrosis
D. Adenosine deaminase deficiency

## Answer: D

## D Watch Video Solution

90. Liver is the largest gland and is associated with various functions, choose one which is not correct.
A. Formation of urea
B. Digestion of fat
C. Formation of bile
D. Secretion of a hormone called enterogastrone

## Answer: D

$\qquad$

