

BIOLOGY

BOOKS - NTA MOCK TESTS

NTA NEET SET 91

Biology

1. How many post-meiotic meiotic division will be required to produce 100 zygotes in a flowering plants?

- A. 100
- B. 125
- C. 500
- D. 250

Answer: C



- **2.** A gene has two alleles B and b. B is responsible for the expression of character x.
- b. is responsible for the expression of character

y. B. is completely dominant over b. Another gene A is epistatic on gene B. When A is in the dominant condition it suppress the expression of B and b and gives rise to character z.In recessive condition (allele a) allows expression of B and b. When an organism with genotype AaBb is crossed with another organism with genotype AbBb, the ratio of characters x,y and z seen in its offsprings is

A. 3:4:9

B. 3:1:12

C. 1:12:3

D. 9:4:3

Answer: B



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3. Read the following paragraph about an organism.

These organisms are unicellular eukaryotes.

Their body moves along decaying twigs and leaves engulfing organic material. Under suitable conditions, they from an aggregation called plasmodium which may grow and spread

over several feet . During unfavorable conditions, the plasmodium differentiates and forma fruiting bodies bearing spores at their tips

Which of the following organism does it?

A. Protozoa

B. Euglenoids

C. Fungi

D. Slime moulds

Answer: D



4. Mark the correct option about prosthetic group and co-enzyme .

A. i

B. ii

C. iii

D. iv

Answer: C



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- A. Ampulla
- B. Isthmus
- C. Infundibulum
- D. Uters

Answer: D



6. Sacred groves are seen in sarguja, Chanda and Bastar areas in

A. Madhya Pradesh

B. Maharashtra

C. Meghalaya

D. Rajasthan

Answer: A



- **7.** Which of the following statements are correct?
- 1. PCR is now routinely used to detect HIV in suspected AIDS patients.
- 2. A single stranded DNA or RNA, tagged with a radioactive molecule (probe) is allowed to hybridize to its complementary DNA in a clone of cells followed by detection using autoradiography.
- 3. ElISA is based on the principle of antigen antibody interaction.
- 4. Today transgenic models exist for many

human diseases such as cancer, cystic fibrosis, rheumatoid arthritis, and Alzheimer's

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

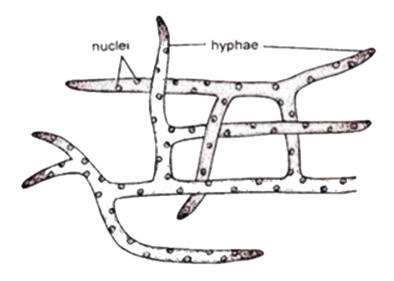
Answer: D



- **8.** Which one of the following is a correct statement?
 - A. Dominant trait can be expressed in homozygous condition only
 - B. Recessive condition is expressed in homozygous condition only
 - C. Dominant condition cannot be expressed in homozygous condition
 - D. All of the above



9. Which of the following organisms will show a condition as depicted in the following diagram ?



- A. Penicillium
- B. Alternaria
- C. Albugo
- D. Ustilago

Answer: C



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10. In a pea plant , the genotype Rr will expressed as

- A. round seed with large starch grain
- B. round seed with intermediate starch grain
- C. round seed with small starch grain
- D. Wrinkled seed with small starch grain



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11. As each cell of the sporogenous tissue is capable of giving rise to

- A. a megaspore diad
- B. a megaspore tetrad
- C. a microspore diad
- D. a microspore tetrad

Answer: D



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12. Mendel law of independent assortment does not hold true for the genes that are located closely on

- A. same chromosome
- B. non-homologous chromosomes
- C. X chromosome
- D. autosomes

Answer: A



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13. Area of retina in human eye containing only come cells is called

B. tapetum lucidum		
C. macula lutea		
D. fovea centralis		
Answer: D		
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14. Seedless fruits are produced from:		
14. Securess fraits are produced from:		
A. Cleistogamous flowers		

A. Optic disc

B. unpollinated ovary

C. unfertilized ovary

D. fertilized ovary

Answer: C



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15. The SAN generates an action potential which stimulates both the atria to undergo a simultaneous contraction and this is know as the

- A. the atrial diastole
- B. the atrial systole
- C. the Ventricular systole
- D. the Ventricular diastole



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16. Which of the following association fix nitrogen through non-nodulation?

A. Roots of leguminous plants associated with Rhizobium.

B. Coralloid roots of cycas in association with Anabaena.

C. Both a and b

D. None

Answer: B



17. Osmoreceptors in the body are activated by changes in

A. blood volume

B. body fluid volume

C. ionic concentration

D. all of these

Answer: D



- 18. Read the following statements:
- i. 51 % of carbon is found dissolved in oceans.
- ii.The oceanic reservoir regulated the amount of carbon dioxide in the atmosphere.
- iii. Some amount of the fixed carbon is lost to sediments and removed from circulation.
- iv. Carbon constituents 49% of the dry weight of an organism and it is next only to water.
 - A. i and ii are true but iii and iv are false
 - B. i and iii are true but ii and iv are false
 - C. ii and iii are true but i and iv are false

D. i and iv are correct but ii and ii are false

Answer: C



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19. Lyases catalyze through

A. removal of groups from substrates by mechanisms other than hydrolysis leaving double bonds .

B. linking together of two compounds

- C. transfer of a group, other than hydrogen
 - , between a pair of substrates
- D. inter-conversion of optical, geometric or positional isomers .

Answer: A



20. Species having exclusive areas of the geographic distribution are

- A. sibling species
- B. morphospecies
- C. sympatric species
- D. allopathic species

Answer: D



- 21. Which Statement among the following are
- **CORRECT?**
- I. The upper surface of the tongue has small

projections called papillae, some of which bear taste buds.

II. The serosa is the innermost layer of the alimentary canal and is made up of a thin mesothelium (epithelium of visceral organs) with some connective tissue.

III. The live is the largest glands of the body weighing about 4.3 to 5 kg in an adult human.

IV. During the process of digestion, the stomach stores the food for 2 - 3 hours.

A. I and III

B. II and IV

C. I and IV

D. II and III

Answer: C



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22. The extra volume of air that can be inspired forcibly after normal inspiration is

A. Tidal volume

B. Inspiratory Reserve Volume

C. Vital capacity

D. Inspiratory Capacity

Answer: D



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23. Which of the following steps is associated with ATP formation (substrate level phosphorylation)?

A. Succinyl CoA - succinic acid

B. 1,3 diPGA $\,
ightarrow\,$ 3 PGA

C. PEP $\,
ightarrow\,$ Pyruvate

D. All of these

Answer: D



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24. Industrial melanism in peppered moth occurred due to natural selection . The significant reason for this is

- A. the light coloured white moths could not be noticed by predatory birds after deposition of soots on bark of trees
- B. mutation in light coloured moths due to increase in industrial pollution
- C. advantageous selection of black moths on tree in polluted areas, resulting in increase population of black moths
- D. advantageous selection of white moths on tree in polluted areas, resulting in

increased population of white moths

Answer: C



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25. In general , species diversityae we move away from the equator towards the poles and with very few exceptions, tropics harbor species than temperature or polar areas.

A. a -increases, b-less

B. a -decreases , b-more

C. a -increases, b-more

D. a -decreases, b- less

Answer: B



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26. In the year 1963, the two enzymes responsible for restricting the growth of bacteriophage in E. coli were isolated. One of these added methyl groups to DNA, while the other cut DNA. The latter was called

- A. Ligase, Restriction endounclease
- B. Helicases, Restriction endounclease
- C. Methylase Restriction endounclease
- D. DNA polymerase , Restriction

endounclease

Answer: C



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27. Colchicine is obtained from:-

- A. rhizome of Colchicum autumnal
- B. corms of Colchicum autumnale
- C. bulbs of Colchicum autumnal
- D. root tubers of Colchicum autumnal



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28. Find out the MISMATCHED pair.

A. Haemophilia - Sex linked recessive

- B. Cystic fibrosis Autosomal dominant
- C. Down's syndrome Trisomy 21
- D. Turner's syndrome X-linked



- 29. The "nervous system" of Hydra consists of
 - A. Polarized nerve cells
 - B. nonpolarized nerve cells

- C. well defined nerves
- D. ganglionated nerve cord



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30. Number of microsporangia in a dithecous anther is:

- A. Only one
- B. Two

C. Four

D. Many

Answer: C



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31. Column I list the parts of the human brain and column II lists the functions. Match the two columns and identify y CORRECT choice from

those given.

Column I	Column II
A. Cerebrum	p. Controls the pituitary
B. Cerebellum	q. Controls vision and hearing
C. Hypothalamus	r. Controls the rate of heartbeat
D. Midbrain	s. Seat of intelligence
	t. Maintains body posture

A.
$$A = t$$
, $B = s$, $C = q$, $D = p$

B.
$$A = s$$
, $B = t$, $C = q$, $D = p$

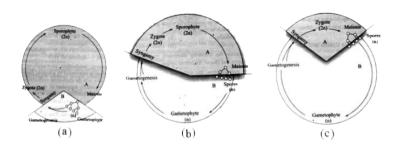
C.
$$A = t, B = s, C = p, D = q$$

D.
$$A = s, B = t, C = p,D = q$$

Answer: D



32. Recognise the figure and find out the CORRECT matching:



A. a-Haplontic life cycle , b-diplontic life cycle , c-haplodiplontic life cycle

B. a-Haplodiplontic life cycle, b-diplontic life cycle, c-haplontic life cycle

C. a - Diplontic life cycle, b - haplodiplontic

life cycle, c- haplontic life cycle

D. a - Haplontic life cycle, b - haplodiplontic

life cycle, c - diplontic life cycle

Answer: C



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33. What is FALSE?

- A. Menarche is the beginning of menstruation.
- B. menstruation. is the shedding of the endometrial lining.
- C. Menopause occurs at the beginning of puberty.
- D. Ovulation occurs under a high titre of LH.

Answer: C



34. Naked (wall-less) , multinucleated and saprophytic organisms are grouped as

- A. monerans
- **B. Protists**
- C. euglenoids
- D. slime moulds

Answer: D



- **35.** Where will you look for the gametes of a malaria parasite?
 - A. Red blood corpuscles of humans suffering from malaria
 - B. Salivary of infected female mosquito
 - C. Salivary glands of freshly moulted infected female mosquito
 - D. Gut of infected female mosquito that can act as vector for malaria parasite

Answer: D



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36. If in a photosynthetic system H_2O^{18} type is provided , what will be the type of oxygen released in the process ?

A. O^{18}

 ${\rm B.}\,O^{16}$

C. normal O_2

D. O^{14}



37. Glomerular area of adrenal cortex is mainly responsible for

- A. maintaining glucouse levels
- B. carbohydrate metabolism
- C. water and electrolyte balance
- D. steroid and hormone secretion

Answer: C



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38. In a mature dicot stem which has undergone seconday growth, youngest layer of secondary xylem is situated

- A. in between pith and primary xylem
- B. just outside the vascular cambium
- C. just inner to the Vascular cambium
- D. just inner to the phellogen

Answer: C



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39.8th, 9th and 10th pair of ribs

- A. articulate with the sternum anteriorly
- B. articulate with 7th rib with the help of a hyaline cartilage
- C. articulate with 7th rib with the help of a fibrocartilage

D. do not articulate arteriorly

Answer: B



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40. In unilocular ovary with a single ovule the placentation is

A. axile

B. marginal

C. basal

D. free central

Answer: C



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41. Which of the following is/are called morning after pills

A. i-pill

B. unwanted 72

C. Pill-72

D. All of these

Answer: D



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42. Ribososomes are CORRECTLY characterized by which of the following statements ?

A. They are composed entirely of r-RNA

B. They are composed of two equal subunits.

C. They differ in response to antibiotics depending on whether they are eukaryotic or prokaryotic in origin .

D. They are composed of three equal subunits .

Answer: C



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43. Which one of the following is a WRONG statements?

- A. Ozone in the upper part of the atmosphere is harmful to animals.
- B. The greenhouse effect is a natural phenomenon.
- C. Eutrophication is a natural phenomenon in freshwater bodies.
- D. Most of the forests have been lost in tropical areas.



44. Match Column I with column II and select the CORRECT option from the codes given below.

	$\operatorname{Column} \operatorname{I}$		Column II
(i)	Nitrogen	(a)	Interveinal chlorosis
(ii)	Iron	(b)	Rossetting of leaves
(iii)	Boron	(c)	Wrinkling of cereal grains
(iv)	Chlorine	(d)	Bronze colour in leaves



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45. A virus with ssDNA is discovered. Its DNA is amplified by running 19 cycles of PCR. How many dsDNA strand will be formed at the end?

A. 10

B. 512

C. 1024

D. 102



- **46.** In sickle-cell anaemia, the shape of RBCs under oxygen tension becomes.......
 - A. biconcave disc like
 - B. elongated and curved
 - C. circular
 - D. spherical



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47. Increase in temperature by $2^{\circ}C$ scrotum would

A. reduce the fertility by impairment of spermatogenesis

- B. have no effect on fertility
- C. reduces blood supply to scrotum
- D. pull the tertes towards abdomen



- **48.** Virus-mediated transfer of DNA from one bacterium to another is called
 - A. transduction
 - B. transformation
 - C. transversion
 - D. translation



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- **49.** Which of these symptoms is associated with the hyposecretion of thyroid hormones ?
 - A. Decreased pulse rate
 - B. Hypertension
 - C. Diarrhoea
 - D. Weight loss with a normal or increased

food intake



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50. The suction pressure of the cell is

A. equal to wall pressure

B. equal to turgor pressure

C. equal to DPD

D. Osmotic pressure

Answer: C



51. All of the following can be found in the female cockroach, except

A. fat body

B. gonapophyses

C. anal styles

D. vestibulum

Answer: C



52. During which phase(s) of cell cycle amount of DNA in a cell remains at 4C level if the initial amount is denoted an 2C

- A. G_0 and G_1
- $B. G_1 \text{ and } S$
- C. Only G_2
- D. G_2 and M

Answer: D



53. Select the disease which is NOT an auto - immune disorder .

A. Myasthenia gravis

B. Rheumatoid arthritis

C. Muscular dystrophy

D. Grave's disease

Answer: C



54. Match Column - I with Column - II and Select the CORRECT option from the codes given below.

υe	iow.			
	Column I		Column II	
1	Monera	(i)	Chlamydomonas Solanum	
2	Protista	(ii)	Bacillus, Ocillatoria	
3	Fungi	(iii)	Euglena, Trypanosome	
4	Plantae	(iv)	Mucor, Penicillium	
5	Animalia	(v)	Felis, Panthera	
A. 1 - (iii) , 2 - (ii) , 3 - (iv) , 4 - (i) , 5 - (v)				
	B. 1 - (ii), 2	- (iii) , 3	3 - (iv) , 4 - (i) , 5 - (v)	



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55. Single step large mutation is called

A. speciation

B. saltation

C. genetic drift

D. Sewall Wright effect

Answer: B

56. Which of the following physiological effects is caused in plants by gibberellic acid?

A. Shortening of genetically tall plants

B. Elongation of genetically dwarf plants

C. Rooting in stem cuttings

D. Yellowing of young leaves

Answer: B



57. Onion is propagated through its

A. tubers

B. bulb

C. seeds

D. rhizomes

Answer: B



58. Match the organisms with their excretory

organs:

Organism Excretory organ

a. Earthworm p. Protonephridia

b. Cockroach q. Green glands

c. Rotifers r. Nephridia

d. Prawn s. Malpighian tubule

A. a-q,b-p,c-r,d-s

B. a-r,b-q,c-s,d-p

C. a-r,b-s,c-p,d-q

D. a-r,b-s,c-q,d-p

Answer: C



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59. Which of the following paris consists of false fruits?

A. Apple and Cashewnut

B. Pineapple and Mulberry

C. Pear and Strawberry

D. All the above

Answer: D



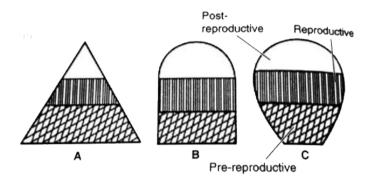
60. Which of the following can be used as a bioweapon in wars?

- A. A pathogen
- B. Toxin from a pathogen
- C. A deliver system for the bioweapon agent
- D. All of the above

Answer: D



61. The following diagrams are the age pyramids of different populations.



Select the CORRECT statement regarding the above.

A. A - It is a pyramid - shaped age pyramid indicating decreasing population growth.

B. B - It is a bell - shaped pyramid indicating stable population.

C. C - It is an urn - shaped pyramid indicating increased populating growth.

D. All statement are correct.

Answer: B



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62. Primates called Dryopithecus and Ramapithecus existed nearly:

- A. 5 mya
- B. 15 mya
- C. 1 mya
- D. 2 mya



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63. Which of the following is closest to the plasma membrane?

- A. Tonoplast
- B. Middle lamella
- C. Primary cell wall
- D. Secondary cell wall

Answer: D



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64. Which of the following is correct about

Atropa belladonna?

- A. Family Plant type
 Solanaceae Ornamental plant
 Family Plant type
- B. Solanaceae Hallucinogenic plant
- C. Family Plant type
 Fabaceae Immunonodulator plant
- D. $\frac{\text{Family}}{\text{Fabaceae}}$ Plant type Depressant plant

Answer: B



65. How many of the following statement are

TRUE ?

(i) 6 turns of B - DNA has 120 nucleotides.

- (ii) In prokaryotes, gene regulation generally occurs at transcriptional level.
- (iii) Operon concept was given by Jacob and Monod while working on yeast.
- (iv) The enzyme required for peptide chain synthesis is a ribozyme in bacteria and lies in 50S subunit.
- (v) A small segment of RNA synthesized during replication of DNA is "Okazaki segment".
 - A. 2
 - B. 3
 - C. 1

Answer: B



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66. Find out the CORRECT Statement.

A. Ciliated epithelium present in convoluted

parts of nephric tubule absorb only has

striated involuntary muscles.

- B. Haversian canals are interconnected by canaliculi and lacunae.
- C. Abdominal wall in our body has striated involuntary muscles.
- D. Elastic cartilage is present in the tip of our nose

Answer: D



67. The main cause of extinction of species from tropical area is :

- A. Over exploitation
- **B.** Deforestation
- C. Alien species invasion
- D. More than one option is correct

Answer: B



- **68.** Which one of the following statements about all the four of spongilla, leech, dolphin and penguin is correct?
 - A. Penguin is homoeothermic while the remaining three are poikilothermic.
 - B. Leech is a freshwater form while all others are marine.
 - C. Spongilla has special collared cells called choanocytes, not found in the remaining three.

D. All of them shows bilateral symmetry.

Answer: C



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69. After the reduction in BOD of waste water, the bacterial flocs are allowed to sediment. This sediment is called

A. Primary sludge

B. Activated sludge

C. Effluent

D. Grit

Answer: B



- **70.** Read the following statements and find out the incorrect statements.
- a. Mons pubis is a cushion of fatty tissue covered by skin and pubic hair.
- b. The labia minora are fleshy folds of tissue,

which extend doen from the mons pubis and surround the vaginal opening.

c. The opening of the vagina is often covered partially by a membrane called hymen.

d. The clitoris lies at the upper junction of two labia majora above the urethral opening .

e. The presence or absence of hymen is a reliable indicator of virginity or sexual experience.

A. b,d ande

B. b,c and d

C. b,c and d

D. a, c and e

Answer: A



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71. Fill in the blanks

Qualitative comparisons between the growth of the living system can be in two ways:

(i) Measurement and the comparison of total growth per unit time is called the ..a...growth rate.

(ii) The growth of the given system per unit

time expressed on a common basis, eg. per unit

initial parameter is called...b.... growth rate

A. a - absolute, b - relative

B. a - relative, b - absolute

C. a - arithmetic , b - geometric

D. a - geometric , b - arithmetic

Answer: A



72. Which of the following gas in the atmosphere is not considered as a pollutant?

- A. Hydrocarbons
- B. Carbon dioxide
- C. Carbon monoxide
- D. Sulphur dioxide

Answer: B



73. A protozoan reproduces by binary fission. What will be the number of protozoans in its population after six generations?

- A. 64
- B. 128
- C. 24
- D. 32

Answer: A



74. Which of the following is not correct about acetabulum?

A. It is a part of pectoral girdle.

B. It articulates with the head of femur to form the hip joint.

C. It is formed by the fusion of ilium, ischium and pubis.

D. It is a part of pelvic girdle.

Answer: A

75. The rate at which light energy is converted into chemical energy of organic molecules, is the ecosystem's

A. Net primary productivity

B. Gross primary productivity

C. Net secondary productivity

D. Gross secondary productivity

Answer: B

76. Which of the following statement is true for lymph?

A. All components of blood except WBCs and serum

B. All components of blood except RBCs and some proteins

C. RBCs, WBCs and plasma

D. RBCs proteins and platelets

Answer: B



77. Match column -l with column -ll and select the CORRECT option from codes given below

	Column-I		Column-II
((1))	Meristem	(i)	Photosynthesis, storage
(2)	Parenchyma	(ii)	Living mechanical tissue
((3))	Collenchyma	(iii)	Actively dividing cells
(4)	Sclerenchyma	(iv)	Stomata
(5)	Epidermal tissue	(v)	Sclereids

Answer: B



- **78.** Which of the following statements are false
- / true
- (A) Calcitonin regulates the metabolism of calcium
- (B) Oxytocin stimulates contraction of uterine

muscles during birth

(C) Grave's disease is caused by malfunctioning

(D) ADH stimulates absorption of water and increase the urine productions

A. A,B and C are true, D only false

B. A only true, B,C and D are false

C. A and D are false, B and C are true

D. A and B are true, C and D are false

Answer: D

of adrenal gland



79. Ulothrix and Spirogyra are:

- A. Colonial and branched
- B. Solitary and branched
- C. Filamentous and unbranched
- D. Filamentous and branched

Answer: C



80. Which of these is a non - steroidal contraceptive pill ?

- A. Mala D
- B. Mala L
- C. Saheli
- D. Progestogens

Answer: C



81. The chemiosmotic theory of ATP synthesis in the chloroplast and mitochondria is based on

- A. membrane potential.
- B. proton gradient
- C. accumulation of $Na^{\,+}$
- D. accumulation of $K^{\,+}$

Answer: B



- A. Aleuroplast
- B. Chromoplast
- C. Chloroplast
- D. Aleurone

Answer: D



83. The most commonly used bioreactor is of stirring type . The stirrer facilitates.

- A. Temperature control
- B. pH control
- C. Oxygen availability
- D. Product removal

Answer: C



- 84. During somatic hybridisation in plants
 - A. Somaclones are produced in large
 - B. Apical meristems are cultured to get virus
 - free plants
 - C. Cell wall and middle lamella are digested before fusing the cells.
 - D. Crop plants with higher levels of vitamis, proteins and minerals are hybridised

Answer: C

85. How much oxygen is supplied to tissues under normal physiological conditions by the oxygenated blood?

A. 5 ml oxygen/ 100 ml of blood

B. 4 ml oxygen/ 100 ml of blood

C. 15 ml oxygen/ 100 ml of blood

D. 20 ml oxygen/ 100 ml of blood

Answer: A

86. Pronoba moth is specific pollinator of:

A. Evening primrose.

B. Ophrys.

C. Yucca

D. Commelina

Answer: C



87. GLUT - 4 is

- A. a protein which enables glucose transport in cells
- B. a carbohydrate which enables glucose transport in cells
- C. a protein which enables glucose transport .
- D. a lipid which allows transport of hormone.

Answer: A



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88. Match the column:

	Column-l		Column-II	
a.	Prophase	(i)	Nucleolus reappears.	
b.	Metaphase	(ii)	Division of protoplast.	
с.	Anaphase	(iii)	Chromosome completes its	
			condensation.	
d.	Telophase		Spindle fibres start appearing	
			near the nucleus.	
e.	Cytokinesis	(V)	Chromosomes appear V, L, J and I	
			shaped.	

Answer: B



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89. Pyruvic acid, the key product of glycolysis can have many metabolic fates. Under aerobic condition it forms

A. lactic acid

B. $CO_2 + H_2O$

C. acetyl $CoA + CO_2$

D. ethanol $+CO_2$

Answer: C



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90. Arrange the following in descending order of their size.

A. DNA
ightarrow tRNA
ightarrow mRNA
ightarrow rRNA

B. DNA
ightarrow mRNA
ightarrow rRNA
ightarrow tRNA

C. DNA
ightarrow rRNA
ightarrow mRNA
ightarrow tRNA

D. DNA
ightarrow rRNA
ightarrow tRNA
ightarrow mRNA

Answer: B

