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## BIOLOGY

## BOOKS - NTA MOCK TESTS

## NTA NEET TEST 22

## Biology

1. The one strand of DNA has a nucleotide sequence 3 ' ATTCGCTAT 5', the nucleotide sequence of other DNA strand will be
A. $3^{\prime}$ TAAGCGATA $5^{\prime}$
B. 5' TAGCACGTA 5'
C. 5' TAGCACGTA 3'
D. 5' TAAGCGATA 3'

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2. According to the chemiosmotic hypothesis of ATP formation in the chloroplast, which one does not contribute to the development of proton gradient across the thylakoid membrane?
A. Splitting of water
B. Reduction of $N A D P^{+}$to $N A D P H+H^{+}$
C. Reduction of $N A D^{+}$to $N A D P H+H^{+}$
D. Removal of $H^{+}$from stroma while transporting electron

## Answer: C

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3. Which of the following is a correct match between crop, variety and resistance to diseases ?
Crop Variety Resisatance to diseases
Wheat Himgiri White rust
B.
Crop Variety Resisatance to diseases
Brassica Pusa sadabahar Black rot
C. Crop Variety Resisatance to diseases
Cowpea Pusa komal Bacterial blight
D. $\begin{array}{lll}\text { Crop } & \text { Variety } & \text { Resisatance to disea } \\ \text { Chilli } & \text { Pusa swarnim } & \text { Chilly mosaic virus }\end{array}$

## Answer: C

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4. The most thoroughly studied known bacteria- plant interactions is ,
A. plant growth stimulation by phosphate-solubilising bacteria
B. cyanobacterial symbiosis with some aquatic ferns
C. gall formation on certain angiosperms by agrobacterium
D. nodulation of sesbania stems by nitrogen fixing bacteria

## Answer: C

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5. The cardiac pacemaker in a patient falls to function normally.the doctors find that an artificial pacemaker is to be grafted in him.Is is likely that it will be grafted at the site of
A. Atrioventricular bundle
B. Purkinje system
C. Sino-atrial node
D. Atrio-ventricular node

## Answer: C

6. Pentamerous,actinomorphic flowers, bicarpellate ovary with oblique septa and capsule or berry fruits are characteristic features of
A. Brassicaceace
B. Solanaceae
C. Liliacease
D. Asteracease

## Answer: B

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7. In ureotelic animals,which one pair of the following wastes are removed from the blood?
A. Ammonia and urea
B. Urea and sodium salts
C. $\mathrm{CO}_{2}$ and ammonia
D. $\mathrm{CO}_{2}$ and urea

## Answer: C

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8. What will be the ploidy of endosperm and zygote if the cross is made between a $6 n$ female plant and a $4 n$ male plant?
A. $5 n, 8 n$
B. $8 \mathrm{n}, 5 \mathrm{n}$
C. $10 n, 7 n$
D. $6 \mathrm{n}, 4 \mathrm{n}$

## Answer: B

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9. A potted plant placed near the window bends outwardly due to
A. Greater oxygen availability to the tip
B. More auxin content on the shaded side
C. Greater light availabilty to tip
D. Availability of necessary warmth to the tip

## Answer: B

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10. A colourblind man marries a woman with normal sight who was has no history of colour blindness in her family. What is the probability of their sons being colourblind?
A. 1
B. Nil
C. 0.25
D. 0.5

## Answer: B

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11. In the equation, $d N / d t=r N$
A. $r$ ' is called the 'intrinsic'rate of natural increase'.
B. $r^{\prime}$ is the parameter chosen for assessing impacts of any biotic
factor an population growth.
C. $r$ ' is the parameter chosen for assessing impacts abiotic
D. All of these

## Answer: D

12. Which of the following includes all homologous organs?
A. The wings of butterfly, wing of bird,wing (patagia)of bat
B. The fore limb of frog, wing of bird and fore limb of rabbit
C. The thoracic leg of cockroach, the hind leg of frog and fore leg of rabbit
D. The wing of bird, wing of bat and wing of "flying"lizard

## Answer: B

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13. The primary source of allelic variation is
A. Independent assortment
B. Mutation
C. Polyploidy
D. Recombination

## Answer: B

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14. InItroduction of attenuated pathogens in human body results in $\qquad$ .
A. Artificial acquired active immunity
B. Artificial acquired passive immunity
C. Natural acquired active immunity
D. Nature acquired passieve immunity

## Answer: A

15. In some plants,the female gamete develops into embryo without fertilisation. This phenomenoun is known as
A. Autogamy
B. Parthenocarpy
C. Syngamy
D. Parthenogenesis

## Answer: D

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16. In some organisms, karyokinesis is not followed by cytokinesis as a result of which,multinucleate condition arises leading to the formation of syncytium. The perfect example for this is
A. Appereane of a furrow in cell membrane
B. Liquid endosperm in coconut
C. Sexual reproduction
D. Fertilization

## Answer: B

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17. Lichens indicate $S_{O-}$ (2) pollution because they
A. Show association between algae and fungi
B. Grow faster than other
C. Are sensitive to $\mathrm{SO}_{2}$
D. Flourish in $\mathrm{SO}_{2}$ rich enviroment

## Answer: B

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18. Lysozyme is present in perspiration, saliva and tears .It destroys
A. certain fungi
B. Most virus-infected cells
C. certain types of bacteria
D. All virus

## Answer: C

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19. fascicular, interfascicular and extra-fascicular cambium together constitute
A. Ground meristem
B. Apical meristem
C. Intercalary meristem

# D. Lateral meristem 

## Answer: D

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20. The diagram represent Miller's experiment. Choose the correct combination of labelling.

A. A-Electrodes
$\mathrm{B}-\mathrm{NH}_{3}+\mathrm{H}_{2}+\mathrm{H}_{2} \mathrm{O}+\mathrm{CH}_{4}$

C-Cold water

D = Vacuum

E-U-trap
B. A-Electrodes
$\mathrm{B}-\mathrm{NH}_{4}+\mathrm{H}_{2}+\mathrm{H}_{2} \mathrm{O}+\mathrm{CH}_{3}$

C - Hot water

D = Vacuum

E-U-trap
C. A-Electrodes
$\mathrm{B}-\mathrm{NH}_{3}+\mathrm{H}_{2} \mathrm{O}$

C - steam
$\mathrm{D}=\mathrm{U}$-trap

E-Vacuum
D. A-Electrodes
$\mathrm{B}-\mathrm{NH}_{3}+\mathrm{H}_{2}+\mathrm{H}_{2} \mathrm{O}+\mathrm{CH}_{4}$

C - Steam

D = Vacuum

E-U-trap

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21. Golden rice is a transgenic crop of the future with which of the following improved trait?
A. Insect resistance
B. High lysine(essential amino acid)content
C. High protein
D. High vitamin -A

## Answer: D

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22. Vasa efferentia are the ductules leading from:
A. Testicular loubles to rete testis
B. Vas deferens to epididymis
C. Epididymis to urethra
D. Rete testis to Vas deferns

## Answer: D

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23. The exchange of gases with the surrounding atmosphere for respiration takes place through the skin in which of the following organisms?
A. Homo sapiens
B. Rana tigrina
C. Psittacula Krameria
D. Panthera leo

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24. Adrenaline and noradrenaline are hormones that act as
A. play an important role in the body's fight or flight response
B. Causes increased blood pressure, heart rate ,and blood sugar levels.
C. act as both neurotransmitters and hormones
D. All of these

## Answer: D

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25. Which one of the following microbes is the source of acetic acid?
A. Clostridium acetobutylicum
B. Acetobacter aceti
C. Gluconacetobacter liquefaciens
D. All of these

## Answer: D

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26. Which one of the following pairs of structures distinguishes a nerve cell from other types of cells?
A. Vacoules and fibres
B. Flagellum and medullary sheath
C. Nucleus and mitochondria
D. Cell body of a neuron and dendrites

## Answer: D

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27. What would happen if in a gene encoding a polypeptide of 50 amino acids, 25th codon (UAU) is mutated to UAA ?
A. A polypeptide of 25 amino acids will be formed
B. A polypeptide of 24 amino acids will be formed
C. Two polypeptide of 24 and 25 amino acids will be formed
D. A polypeptide of 49 amino acids will be be formed

## Answer: B

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28. Which one of the following groups of three animals each is correctly matched with their one characteristic morphological features?
Animal
Morphological fratures
A.
Liver fluke, Sea cucumber
Bilateral symmetry

Animal
Centipede, Prawn, Sea cucumber Jointed appendages
C.

Animal Morphological fratures
Scorpion, Spider, Cockroach Ventral solid central nervous system
D. Animal Morphological fratures

Cockroach,locust,Taenia Metameric segmentation

## Answer: C

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29. $\qquad$ showed that viruses could be crystallized,and crystals majorly consist of proteins.
A. Ivanowsky
B. Beijernick
C. Stanely
D. Diener

## Answer: C

30. Which one of the following methods is commonly used to maintain the genetic of a given plant?
A. By propagating through seed germination
B. By propagating through vegetative multiplication
C. By generating hybirds through intergeneric pollination
D. By treating the seeds with gamma radiations

## Answer: B

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31. What will be the corect gene expression pathway
A. Gene-mRNA transcripition-translation-protein
B. transcripition -gene translation-mRNA- protein
C. Gene transcripition mRNA-translation protein
D. Gene-translation mRNA-transcripition protein

## Answer: C

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32. Capacitation refers to changes in the
A. Sperm after fertillisation
B. Sperm before fertillisation
C. Ovum before fertillisation
D. Ovum After fertillisation

## Answer: B

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33. Collenchyma tissue is characterized by
A. Elongated cells with thickening at the corners
B. Isodiametric cells with thickening all over the walls
C. Isodiametric cells with deposits of cellulose and liginin at the corners
D. Elongated cells which are not involved in the function of food storage

## Answer: A

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34. Read the following statements(A-D)
35. Hypothalamus controls body temperature,eating and drinking
2.The midbrain receives and integrates visual,tactile and auditory inputs
3.The medulla contains centres,which control respiration,cardiovascular
reflexes and gastric secreations
36. The entire process of involuntary response to a peripherical nerve stimulation is called reflex action.

How many of the above statements are true?
A. 3
B. 4
C. 2
D. 1

## Answer: B

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35. Which of the following is correct ?
A. All fungi are filamentous.
B. Transfer of DNA cannot take place from one bacteria to another.
C. A virus cannot have both DNA and RNA .
D. Protists can reproduces only asexually.

## Answer: C

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36. Which of the following statements is not correct regarding ACTH?
A. It is secreated by the anterior lobe of pituitary.
B. It regulates skin pigmentation in human beings.
C. It acts on the adrenal cortex and it mainly stimulates the secreation of mineralocorticoids.
D. ITS hypersecreation causes bronze-like pigmentation of skin.

## Answer: C

37. In striped muscles,cross bridges rapidly dissociative when
A. ADP and inorganic phosphate seperates from mysosin head
B. ATP attaches to the myosin head
C. Calcium binds to tropomyosin
D. Troponin tropomyosin complex masks the active binding sites for myosin on the actin filaments

## Answer: B

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38. Which of the following phases do not take place in a cell exhibiting a syncytium?
A. Cytokinesis
B. Karyokinesis
C. Interphase
D. None of these

## Answer: A

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39. Which of the following is a non-symbiotic biofertillizer?
A. Mycorrhizae
B. Azotobacter
C. Anabaena
D. Rhizobium

## Answer: B

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40. The worst enviromental hazards were created by accidents in nuclear power plant and mic gas tragedy,respectively in
A. Russia in 1990 \& bhopal 1986
B. Ukraine in 1988 \& USA in 1984
C. Bhopal in 1984\&Russia in 1990
D. Ukraine I 1986 and bhopal in 1984

Answer: D
41. Identify the phase ' C ' of the cell cycle given below.

A. Cytokinesis
B. Karyokinesis
C. Mitosis
D. Telophase II

Answer: D
42. The intine of pollen grains is composed of
A. Lipid and protein
B. Cellulose and pectin
C. Lignin and cutin
D. Pectin and lignin

## Answer: B

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43. Which of the following is a hormone releasing intra uterine device (IUD)?
A. Multiload - 375
B. LNG- 20
C. Cervical cap
D. Vault

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44. In Swiss cheese, large holes are formed due to the production of a large amount of $\mathrm{CO}_{2}$ by the bacterium
A. Aspergillus niger
B. Propionibaacterium shermanii
C. Clostidium botulinum
D. none of the above

## Answer: B

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45. The tapetal nuclei in anthers of many angiosperm flowers are
A. Aneuploid
B. Polyploid
C. Haploid
D. Not having complete haploid genome

## Answer: B

