



BIOLOGY

BOOKS - NTA MOCK TESTS

NTA NEET SET 78



1. Bacillus thuringiensis (Bt) is a bacterium of

A. Dirty water

B. Air borne

C. Soil

D. Surface of midgut

Answer: C



2. Ion carriers are located in

A. Nucleus

B. Cell wall

C. Cellular space

D. Plasma membranes

Answer: D



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



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 ds DNA without histones

C. Closed ,coiled, circular,dsDNA without histones

D. Linear, dsDNA with histones

Answer: C



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





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)



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





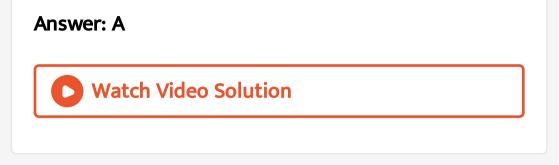
11. During transcription, if the nucleotide sequence of the DNA strand that is being coded is ATACG, then the nucleotide sequence in the m RNA would be

A. UAUGC

B. UATGC

C. TATGC

D. TCTGG



12. Length of one coil of B-DNA helix is

A. 0.34 nm

B. 3.4 nm

 $\mathsf{C.}\,3.4 \mathrm{\AA}$

D. 0.34Å

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~%

 $\mathsf{C.}\,5.2$

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



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

Answer: D



19. What helps in flowering

A. Cytochrome

B. ABA

C. Phytochrome

D. Ethylene

Answer: C



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

A. Sucrose

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



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

D. I,II & 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 Na^+ retention and 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

- N Population density
- D. I Emigration
 - III Immigration

Answer: D

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35. Some hyperthermophilic organisms that grow in highly acidic (pH2) habitats belong to the two groups

A. Eubacteria and archaea

B. Cyanobacteria and diatoms

C. Protists and mosses

D. Liverworts and yeasts

Answer: A



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



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

Answer: B



38. Photochemical smog formed in congested metropolitan cities mainly consists of :

A. Ozone, peroxyacetyl nitrate and NO_2

B. Hydrocarbons, SO_2 and CO_2

C. Smoke, peroxyacetyl nitrate and SO_2

D. Hydrocarbons, ozone and SO_X





39. Which of the following is an example of a typical

homopolysaccharide?

A. Lignin

B. Suberin

C. Inulin

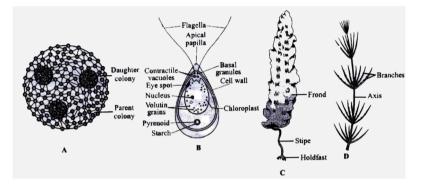
D. Starch

Answer: D

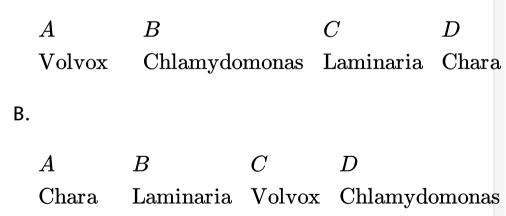


40. Identify the figures given below marked as A,B,C

and D.



Α.



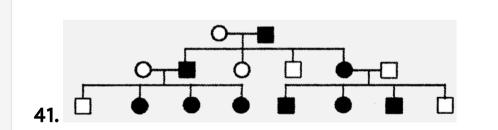
C.

A B C D Laminaria Volvox Chlamydomonas Chara D.

ABCDChlamydomonasCharaLaminariaVolvox

Answer: A





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



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

Column - II Citrus, Bougainvillea Calotropis, guava

A. a- iv ,b - ii , c - i , d - iii

B. a- iv ,b - i , c - ii , d - iii

C. a- ii ,b - i , c - iii , d - iv

D. a- iv ,b - i , c - iii , d - ii

Answer: B



47. Which of the following is expected to have the highest value $(gm/m^2/yr)$ in a grassland ecosystem?

A. Secondary production

B. Tertiary production

C. Gross production (GP)

D. Net production (NP)

Answer: C

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48. All stages of Plasmodium are digested in

stomach of female Anopheles except

A. Sporozoites

B. gametocytes

C. erythrocytes

D. Merozoites

Answer: B



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



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

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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

Answer: B





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

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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



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



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



61. Hormone that stimulates stomach to secrete gastric juice is

A. gastrin

B. enterogastrone.

C. secretin.

D. cholecystokinin.



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



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



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



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



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



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

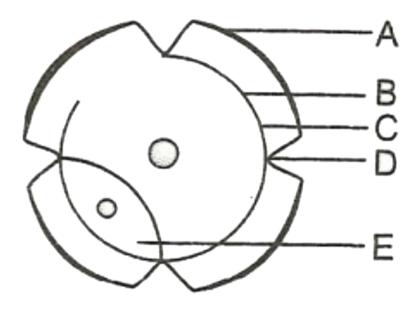
C. ii , iii and v

D. i, iii and v

Answer: B



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



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 $NADPH_2$ 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 A, B , C , D and E respectively.

A. A - Pubis , B - Acetabulum , C - Ilium , 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



75. Organisms which are indicator of 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



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



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



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. β - 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

Answer: B



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

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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



90. Which of the following disease is characterized by damage to alveolar sac and is treated by the protein lpha - 1 antitrypsin ?

A. Cancer

B. Rhematiod arthritis

C. Emphysema

D. ADA deficiency disease in children

Answer: C

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