

BIOLOGY

BOOKS - NTA MOCK TESTS

NEET MOCK TEST 4

Biology

1. The plasma resembles in its composition to the filrate produced by the glomerulus except the presence of

A. Glucose

B. Chloride

- C. Amino acids
- D. Protiens

Answer: D



- **2.** Which of the following has the maximum water potential?
 - A. Pure water
 - B. 2% sucrose solution
 - C. 4% glucose solution
 - D. 10% sodium chloride solution

Answer: A



- **3.** Introduction of food plants developed by genetic engineering is not desirable because
 - A. Economy of developing countries may suffer
 - B. These products are less tasty as compared to the already exising products
 - C. This method is costly
 - D. Transgenic food may cause toxicity and allergy in human beings, and the bacteria present in the

alimentary canal may become resistant to antibiotics by taking up the antibiotic -reseitant gene that in present in the GM food.

Answer: D



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4. An institution where valuable plant material likely to become irretrievably lost in the wild or cultivation is preserved in a viable condition is known as

A. Genome

B. Herbarium

- C. Gene library

 D. Gene bank

 Answer: D

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- **5.** Certain species of wasps are seen to frequently visit flowerig fig trees. The interaction between them is:
 - A. Blood parasitism
 - B. Mutualism
 - C. Commensalism
 - D. Parasitism

Answer: B



- **6.** Identify the INCORRECT statement from the following with reference to lac operon.
 - A. It is a unit of gene expression and regulation for lactose sugar metabolism in E. coli.
 - B. Lactose sugar enters the cell due to the activity of enzyme permease.
 - C. Operators are present between promoters and structural genes.

D. The structural gene 'Z' code for β - galactosidase,

'Y' for transacetylase, and 'A' for permease.

Answer: D



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7. A sugary solution is changed to vinegar by the action of

- A. Azotobacter
- B. Acetobacter aceti
- C. Bacillus subtilis
- D. Mycoderma aceti

Answer: B



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- 8. Which one engulfs pathogens rapidly?
 - A. Acidophills
 - B. Erythrocytes
 - C. Basophils
 - D. Neutrophils

Answer: D



9. The first event in	photosynthesis is
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- A. Synthesis of ATP
- B. Photoexcitation of chlorophyll and ejection of electron
- C. photolysis of water
- D. release of oxygen

Answer: B



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10. Choose the correct statement from the following.

- A. Dioecious (hermaphrodite) organism are seen only in animals.
- B. Dioecious organism are seen only in plants
- C. Dioecious organism are seen in both plants and animals
- D. Dioecious organism are seen only in vertebrates

Answer: C



- **11.** Antibodies are synthesized by _____
 - A. Eosinophil

B. Lymphocyte C. Monocyte D. Neutrophils **Answer: B Watch Video Solution** 12. Myelinated nerve fibers are white coloured because of A. chromidial substance B. neurolemma C. myelin

D. none of these

Answer: C



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13. The capacity of an environment to pull on a limited number of individuals is known as

- A. Bearing capacity
- B. Limited capacity
- C. Environmental resistance
- D. Carrying capacity

Answer: D



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14. Anabolism is

- A. Endergonic process
- B. Exergonic process
- C. Bidirectional process
- D. Bestructive process

Answer: A



15.	Seminal	p	lasma	in	human	ma	les	is	rich	in	-
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- A. glucose and calcium
- B. DNA and testosterone
- C. ribose and potassium
- D. fructose and calcium

Answer: D



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16. What is the correct to say about the hormone action in humans?

- A. glucagon is secreted by β -cells of islets of Langerhans and stimulates glycogenolysis
- B. secretion of thymosis is stimulated with ageing
- C. in females FSH first binds with specific receptors on follicular cell membran
- D. FSH stimulates the secretion of estrogen and progesterone

Answer: C



17. Which one of the following is NOT a plant-like protist?

A. Desmid

B. Dinoflagellate

C. Diatom

D. Slime mould

Answer: D



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18. In order to obtain virus-free plants through tissue culture, the best method is

B. Anther culture					
C. Meristem culture					
D. Protoplast culture					
Answer: C					
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19. The characteristics feature that can be exclusively					
seen in angiosperms is					
A. seeds					
B. fruits					

A. Embryo rescue

- C. endosperm
- D. syngamy

Answer: B



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20. Eustachian tube connects:-

- A. Middle ear with external ear
- B. Middle ear with internal ear
- C. External ear with internal ear
- D. Middle ear with the pharynx

Answer: D



21. The ratio between 2-carbon and 3-carbon intermediates having- NH_2 group formed in photosynthetic oxidation cycle is

- A. 1:1
- B.2:1
- C. 3: 2
- D.3:4

Answer: B

22. Some common marine fishes are

- A. Hilsa
- B. Mackerel
- C. Pomfrets
- D. All of these

Answer: D



23. Smooth muscles are

- A. Involuntary, fusiform, non-striated
- B. Voluntary, multinucleated, cylindrical
- C. Involuntary, cylindrical, striated
- D. Voluntary, spindle-shaped, uninucleated

Answer: A



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24. Enzymes that catalyse the transfer of molecules except H, O and electron are called as

B. Isomerases
C. Lyases
D. Transferases
Answer: D
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25. Parbhani Kranti is a new variety of Abelanoschus
esulentus having the resistance to :-
A. Shoot and fruit borer
A. Shoot and hait bolt
B. Bacterial blight

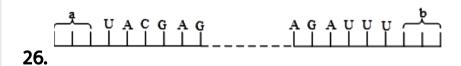
A. Ligases

- C. Yellow mosaic virus
- D. Tobacco mosaic virus

Answer: C



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Study the mRNA segment given above, which is to be completely translated into a polypeptide chain. The codons for 'a' and 'b' are:

$$A. a - UAA$$

$$b - UGA$$

B.
$$a-AUG$$

$$b-UUU$$

$$\mathsf{C.}\,a-AUG$$

$$b-UAG$$

D. a-UAG

$$b-UGA$$

Answer: C



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27. Result(s) of light reaction is/are

A. only ATP

- B. only $NADPH_2$
- C. ATP and $NADPH_2$
- D. Only FAD

Answer: C



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28. An extra-chromosomal, self-replicating part of the cell that has proven to be a boon to biotechnology is:

- A. Virus
- B. Mitochondria
- C. Nucleus

D. Plasmid

Answer: D



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29. The theory of Natural selection that explains the appearance of new from of life on earth was given by:

- A. Oparin and Haldane
- B. Hardy-Weinberg
- C. Mendel
- D. Darwin

Answer: D



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30. Anxiety and eating spicy food together in an otherwise normal human, may lead to

- A. Indigestion
- B. Jaundice
- C. Diarrhoea
- D. Vomiting

Answer: A



- 31. The action of the vaginal diaphragm is
 - A. To prevent the ova to come in the uterus
 - B. To prevent the sperm to come in contact with ova
 - C. spermicidal
 - D. Anti-implantational

Answer: B



32. A colour blind girl is rare because she will be only when:

A. Her mother and maternal grand father were colour blind

B. Her father and maternal grand father were colour blind

C. Her mother is colour blind and father has normal vision

D. Parents have normal vision but grand parents were colour blind

Answer: B

33. Bacillius thuringiensis is a good

- A. Biofertillizer
- B. Biopesticide
- C. Biofuel
- D. Single cell protein

Answer: B



34. The reason for the population explosion in the world is

- A. Increase in birth rate
- B. Decrease in death rate
- C. Both (A) and (B)
- D. None of them

Answer: C



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35. Which one of the following cell organelles is enclosed by a single membrane

A. Mitochondria B. Chloroplasts C. Lysosomes D. Nuclei **Answer: C Watch Video Solution** 36. Which ones have round and biconcave shape A. WBCs B. RBCs C. Epithelial Cells

D. Nerve Cells

Answer: B



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37. Diabetes insipidus is caused by the deficiency of

A. Aldosterone

B. ADH

C. ACTH

D. TSH

Answer: B

38. Chipko movement was launched for the protection of

- A. Forests
- **B.** Livestock
- C. Wetlands
- D. Grasslands

Answer: A



39.	Αll	are	features	of	entomo	philous	flowers	excer	ots
<i></i> .	<i>,</i> (11)	ai C	icatal c5	O I	CITCOTTIO	prinous	HOVVCIS	CACCE	,

- A. Flowers with aroma
- B. Versatile stamens
- C. Pollen grain with sticky surface
- D. Flowers provide reward to pollinators in the form of nectar and pollen grains

Answer: B



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40. Secondary sewage treatment is mainly a

- A. Physical process B. Mechanical process C. Chemical process D. Biological process **Answer: D Watch Video Solution**
 - **41.** In which contraceptive method, the semen will be without sperms?
 - A. Condoms
 - B. Withdrawal coitus

C. Foams
D. Vasectomy
Answer: D
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42. The total number of teeth which comes only once in a life span
A. 20
B. 8
C. 32
D. 12

Answer: D



43. When synapsis is complete all along the chromosomes, the cell is said to have entered a stage called

- A. Zygotene
- B. Pachytene
- C. Diplotene
- D. Diakinesis

Answer: B

44. Which structure of lungs is directly involved in

 $O_2 \, / \, CO_2$ exchange between air and blood capillaries?

- A. Bronchi
- B. Trachea
- C. Alveoli
- D. Secondary bronchi

Answer: C



45. the correct sequence of cytochromes in ETC is

A. Cyt a, b, c, a_3

B. $Cytb, c_1, c, a, a_3$

C. Cytb, a, a_3 , c

D. Cytb, c, a_3 , a

Answer: B



46. Match the following and choose the correct option .

	Column-I		Column-II
Α.	Phaeophyceae	۱.	Funaria,
			Polytrichum,
			Sphagnum
			Equisetum,
В.	Rhodophyceae	II.	Psilotum,
			Pteris
			Ectocarpus,
C.	Mosses	III.	Dictyota,
			Laminaria
			Polysiphonia,
D.	Pteridophytes	IV.	Porphyra,
			Gracilaria

A. A-III, B-IV, C-I, D-II

B. A-IV, B-III, C-I, D-II

- C. A-IV, B-III, C-II, D-I
- D. A-IV, B-I, C-III, D-II

Answer: A



- **47.** In the TCA cycle , $FADH_2$ is formed during
 - A. Conversion of succinyl Co-A to succinate
 - B. Conversion of citrate to cis-aconitate
 - C. Conversion of succinate to fumarate
 - D. Conversion of fumarate to malate

Answer: C



48. Select the correct answer regarding the phase of meiosis and their respective events using the lists given below:

	(Phase of	List II (Event over occurs)
(1)	Prophase I	Crossing over occurs
(2)	Metaphase II	Sister chromatids migrate to opposite poles
(3)	Anaphase I	Homologous line up at equator in pairs

- B. 1 and 2 are correct, 3 is false
- C. 1 is correct, 2 and 3 are false
- D. 1 and 3 are correct, 2 is false

Answer: C



- **49.** Bryophytes differ from pteridophytes in
 - A. Swimming antherozoids
 - B. An independent gametophyte
 - C. Archegonia
 - D. Lack of vascular tissue

Answer: D



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50. For the enzyme enolase, the substrate is

A. Succinic acid

B. 2-PGA

C. PEP

D. Fumaric acid

Answer: B



51. Which of the following statements is incorrect?

A. Shoot apices those modify themselves into flowering apices, cannot perceive photoperiods

B. Sugarbeet, cabbage and carrots are monocarpic plants.

C. To initiate flowering, LDP must be exposed to light for a period less than cirtical duration.

D. Ethephon causes thining of cotton, cherry & walnut

Answer: C



52. When a neuron is in resting state i.e. not conducting any impulse, the axonal membrane is

A. Comparatively more permeable to $Na^{\,+}\,$ ions and nearly impermeable to $K^{\,+}\,$ ions

- B. Equally permeable to both $Na^{\,+}\,$ and $K^{\,+}\,$ ions
- C. Impermeable to both $Na^+ \; {
 m and} \; K^+$ ions
- D. Comparatively more permeable to K^{\pm} ions and nearly impermeable to Na^{\pm} ions

Answer: D



53. In gymnosperms like Pinus and Cycas, the endosperm is

- A. Triploid
- B. Haploid
- C. Diploid
- D. Tetraploid

Answer: B



- **54.** Read statements a-d. Which two of them have mistakes
- (a) First transgenic buffalo Rosie produced milk which was human alpha-lactalbumin enriched
- (b) Restriction enzymes are used in isolation of DNA from other macro molecules
- (c) Downstream processing is one of the steps of rDNA technology
- (d) Disarmed pathogen vectors are also used in transfer of rDNA into the host
 - A. Statement (a) and (c)
 - B. Statement (b) and (c)
 - C. Statement (c) and (d)

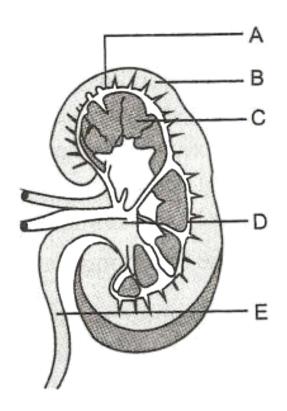
D. Statement (a) and (b)

Answer: D



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55. Refer the following diagram and identify the labelled parts of kidney as indicated.



A.

В.



 $A \hspace{1cm} B \hspace{1cm} C \hspace{1cm} D \hspace{1cm} E$

nephron cortex medulla ureter Renal pelvis

D.

Answer: D



56. Which of the following is a naturally occuring growth inhibitor?

A. IIA

B. ABA

- C. NAA
- D. GA

Answer: B



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57. Gel electrophoresis is used for

- A. Cutting of DNA into fragments
- B. Separation of DNA fragments according to their size
- C. construction of recombinant DNA by joining with cloning vectors

D. Isolation of DNA molecule

Answer: B



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58. An ecosystem which can be easily damaged but can recover after some time if damaging effect stops will be having

- A. Low stability and high resilience
- B. High stability and low resilience
- C. Low stability and low resilience
- D. High stability and high resilience

Answer: A



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- 59. In bioluminescence storage, energy changes into
 - A. Light energy
 - B. Radiant energy
 - C. Chemical energy
 - D. Mechanical energy

Answer: A



60. During isolation of DNA, addition of which of hthe following causes precipitation of purified DNA?

- A. Chilled ethanol
- B. Ribonuclease enzyme
- C. DNA polymerase
- D. Proteases

Answer: A



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61. Protistan genome has

- A. Nucleoprotein in direct contact with cell substance
- B. Gene containing nucleoproteins condensed together in loose mass
- C. Free nucleic acid aggregates
- D. Membrane-bound nucleoproteins embedded in cytoplasm

Answer: D



62. Which of the following ecological pyramids can be inverted?

A. Pyramid of energy

B. Pyramid of number

C. Pyramid of biomass

A. only (a) and (b)

B. only (b)

C. only (b) and (c)

D. All (a), (b) and (c)

Answer: C



63. During oxygen transport, the oxyhaemoglobin at the tissue level liberates oxygen to the cells because

- A. O_2 concentration is high and CO_2 is low
- B. ${\cal O}_2$ concentration is low and ${\cal C}{\cal O}_2$ is high
- C. O_2 tension is low and CO_2 tension is high
- D. O_2 tension is high and CO_2 tension is low

Answer: C



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64. In rainy season, door gets swelled due to

- A. Imbibition
- B. Diffusion
- C. Transpiration
- D. Respiration

Answer: A



- 65. Function of companion cells is
 - A. Provide energy to sieve elements for active
 - transport
 - B. Provide water to phloem

C. Load sucrose into sieve elements by passive transport

D. Load sucrose into sleve elements by active transport

Answer: D



66. A plant leaf is found to have bundle sheath cells having large-sized chloroplasts full of starch granules. Which of the following characteristics can be observed in this plant?

I. Stomata open at night.

II. Presence of PEP carboxylase in mesophylls.

III. Presence of RubisCo in bundle sheath cells.

IV High photorespiration rate in hot summer days.

V. Light reaction and carbon fixation as carbohydrates occur in different cell types.

VI. The carbon assimilation rate is saturated in the early morning on summer days.

A. Only I, III

B. Only II, IV

C. Only II, IV, V

D. Only II, III, V

Answer: D



67. Which of the following is not caused by deficiency of mineral nutrition

- A. Chlorosis
- B. Etiolation
- C. Shortening of interndoes
- D. Necrosis

Answer: B



68. Genetic dwarfness in plants can be resolved by

- A. Lower ABA contents
- B. Higher endogenous auxin contents
- C. Higher endogenous gibberellins contents
- D. High ethylene content

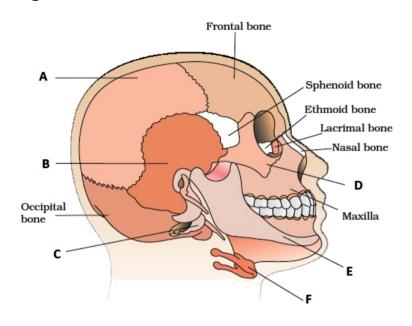
Answer: C



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69. Select the option with the correct identification of the structures labeled by alphabets (A - F) in the given

diagram of the human skull:-



- A. A- Temporal bone, B- Parietal bone, c Occipital condyle
- B. c Occipital condyle, D Zygomatic bone, E =

 Mandible
- C. A Parietal bone, D Vomer bone, F Mandible
- D. B Temporal bone, C Hyoid bone, E Mandible

Answer: B



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70. Concavalin A is

- A. Alkaloids
- B. Chlorophyll
- C. Terpenoids
- D. Lectins

Answer: D



A. Viola
B. Yucca
C. Oxalis
D. Zostera
Answer: D
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72. Which of the following tissue is absent in vasular bundles of monocot stem?

71. Which of the following is pollinated by water

A. Cambium B. Xylem C. Phloem D. All of these **Answer: A Watch Video Solution** 73. In humans, placenta is derived from A. Yolk sac B. Amnion C. Allantois

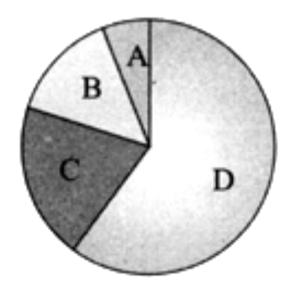
D. Chorion

Answer: D



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74. Select the correct option for A, B, C and D given in the figure with respect to the relative contribution of various greenhouse gases to global warming.



A.

$$(A-CO_2), (B-CFCs), (C-CH_4), (D-NO_2)$$

В.

$$(A-NO_2), (B-CFCs), (C-CH_4), (D-CO_2)$$

C.

$$(A-NO_2), (B-CH_4), (C-CFCs), (D-CO_2)$$

D.

$$(A-CH_{4}), (B-CFCs), (C-NO_{2}), (D-CO_{2})$$

Answer: B

75. Which one of the following is the correct matching of the events occuring during menstrual cycle?

A. Menstruation: Breakdown of myometrium & ovum not fertilized

B. Proliferative phase: Rapid regeneration of myometrium & maturation of Graffian follicle

C. Development of corpus luteum : Secretory phase & increased secretion of progesterone

D. Ovulation: LH and FSH attain peak level & sharp fall in the secretion of progesterone

Answer: C

76. You are given tissue with its potential for differentiation in artificial culture. Which of the following pairs of hormones would you add to the medium to secure shoots as well as roots?

- A. IAA and gibberellin
- B. Auxin and cytokinin
- C. Auxin and abscisic acid
- D. Gibberellin and abscisic acid

Answer: B



77. Germpore is the region where the exine is

- A. Thick
- B. Uniform
- C. Thick and uniform
- D. Absent

Answer: D



78. Pentamerous actinomorphic flowers, bicarpellary ovary with oblique septa, and fruit a capsule or berry, are characteristic features of

- A. Liliaceae
- B. Asteraceae
- C. Brassicaceae
- D. Solanacena

Answer: D



79. Out of 64 codons , 61 codons code for 20 types of amino acid. It is called

- A. Degeneracy of genetic code
- B. Overlapping of gene
- C. Wobbling of codan
- D. Universality of codons

Answer: A



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80. How many different kinds of gametes will be produced by a plant having the genotype AABbCC?

B. Nine
C. Two
D. Three
Answer: C
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81. Smoking addiction is harmful because it produces
polycycllic aromatic hydrocarbons which cause:
A. Reduction in oxygen transport
B. Decrease in blood pressure

A. Four

- C. Cancer
- D. Enhancement of growth of the foetus

Answer: C



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82. The percentage of all gymnosperm species facing extinction is

- A. 12
- B. 23
- C. 32
- D. 31



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- 83. Interspecific hybridization is the mating of
 - A. Animals within same breed without having common ancestors
 - B. Two different related species
 - C. Superior males and females of different breeds
 - D. More closely related individuals within same breed for 4-6 generations

Answer: B

- 84. Variety of cowpea resistant to bacterial blight is
 - A. Pusa swarnim
 - B. Pusa Shubhra
 - C. Pusa Sadapbahar
 - D. Pusa Komal



- A. Mn^+
- ${\rm B.}\,Mg^{2\,+}$
- C. Ca^{2+}
- D. K^+



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86. Tobacco Mosaic Virus (TMV) genes are

A. Double stranded RNA

- B. Single stranded RNA
- C. Polyribonucleotides
- D. Proteinaceous

Answer: B



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87. Which of the following is not the application of PCR

A. Detection of very low concentration of bacteria or

virus

- B. Detection of mutations in genes in suspected cancer patients
- C. Amplification of desired DNA segment
- D. Detection of antibodies synthesised against pathogens



- 88. Pneumatic bones are expected to be found in
 - A. Pigeon
 - B. House lizard

- C. Frog's tadpole
- D. Flying fish

Answer: A



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89. The tendency of the body to manifest a characteristic and unpleasant withdrawal syndrome if regular dose of drugs/alcohol is abruptly discontinued is

- A. Habituation
- B. Dependence

- C. Psychotherapy
- D. Tolerance

Answer: B



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90. Which among the following can be seen in the ultrastructure of both eukaryotic and prokaryotic cell?

- A. Ribosome
- B. Nucleoproteins
- C. Chloroplast
- D. Leucoplast

Answer: A

