



## **BIOLOGY**

## **BOOKS - NTA MOCK TESTS**

## NTA NEET SET 40



1. The smallest disease - causing agent is ....

and it is made up of ......

A. (i) mycoplasma (ii) proteins and nucleic

acids

B. (i) prions, (ii) Proteins only

C. (i) viroids, (ii) nucleic and only

D. (i) viroids, (ii) proteins only

Answer: B

**2.** Select the odd one with respect to the chemical nature of a hormone ?

A. Peptide and polypeptide

B. Steroid and iodothyronine

C. Steroids and amino acid derivative

D. Nucleic and derivatives

Answer: D

3. In plant nutrition elements are classified as major or minor depending on A. Their availability in the soil B. Their relative production in the ash obtained after burning the plants C. The relative amounts required by the plants D. Their relative importance in plant growth

Answer: C



**4.** Hormones which interact with the membrane - bound receptors normally do not enter the target cell but generate second messengers. These second messengers are referred as

A. Calcium ion the inositol - 3 phosphate

B. Inositol 3- phosphate and CAMP

C. cAMP and calcium ion

D. All of above

#### Answer: D

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## **5.** organisms called methanogens are most abundant in a

A. Sulphur rock

B. Cattle yard

C. Polluted stream

D. Hot spring

Answer: B

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6. The alpha and beta cells are found in

A. Islets of Langerhans

B. Pancreatic duct

C. Accessory Pancreatic duct

D. Pancreatic acini





**7.** Select the option having the fungi which belong to the same class

A. Agaricus and Aspergillus

B. Rhizopus and yeast

C. Morchella and saccharomyces

D. Mucor and yeast

#### Answer: C



**8.** The structure that lies at the base of thalamus in the human brain is

A. the structure responsible for the synthesis of oxytocin

B. the structure which forms the major

part of brain

C. the association area

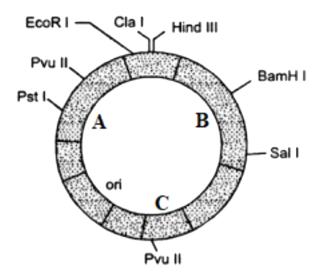
D. the amygdala

#### Answer: A



#### 9. Identify the labeling A,B and C this plasmid

given below.



A.  $A: Amp^R, BTet^R$  and C: ROPB.  $A: Tet^R, B: Amp^R$  and C: ROPC.  $A: Amp^R, B: Kan^R$  and C: PORD.  $A: Tet^R, B: kan^R$  and .C: POR

#### Answer: A





**10.** The process of responding to peripheral nerve stimulation that occurs involuntarily is referred to as

A. Reflex action

B. Action potential

C. Nerve impulses

D. Co - ordination

#### Answer: A





- **11.** the main role of bacteria in the carbon cycle involves
  - A. assimilation of nitrogenous compound
  - B. Photosynthesis
  - C. Chemosynthesis
  - D. digestion or breakdown of organic

Answer: D

**12.** Joints which are fused end - to - with the help of dense fibrous connective tissue are referred to as

A. Sutures

B. Synovial joints

C. Cartilaginous joint

D. ball and socket joint

#### Answer: A





**13.** Pinus is a gymnosperm because it

A. bears pollen grains

B. Is a large tree growing in colder areas

C. lacks ovary but possesses exposed

ovules

D. Possesses vascular tissues

Answer: C

14. The anatomical unit of muscle is

A. muscle fibre

B. Sarcomere

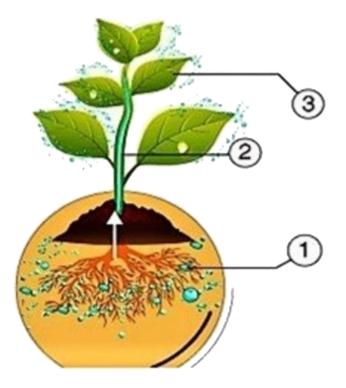
C. filaments

D. Sutures

Answer: A

15. Identify the process involved ,recognizing

labels 1,2 and 3



#### A. Photosynthesis

#### B. Respiration in plants

#### C. Transpiration process

D. None

#### Answer: C

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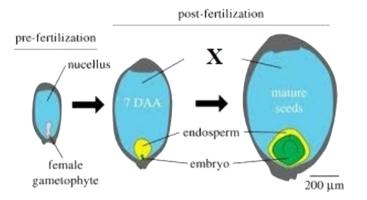
16. Ammonia , urea uric acid , carbon dioxide , water and pons like  $Na^+, K^+, Cl^+$ Phosphate, sulfate, etc., are

A. Excretory substances

- B. Metabolic products
- C. Respiratory substances
- D. both (a) and b)

#### Answer: D

#### 17. Identify 'X' from the diagram below .



#### A. Degenerate ( destroyed ) secondary

#### nucleus

B. Remnant of nucellus ( persistent nucellus )

C. Peripheral (outer) part of endosperm

D. Degenerate ( destroyed ) synergids

Answer: B

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#### 18. The iron free compound of haemoglobin is

A. Globin

B. Haematin

C. Bilirubin

D. Haemotoxin





**19.** In gymnosperms the pollination is

- A. Micropylar and anemophilous
- B. Micropylar entomophilous
- C. Stigmatic anemophilous
- D. Stigmatic anemophilous

Answer: A



# **20.** The oxygen dissociation curve of hemoglobin is

A. S shape

B. sigmoid shape

C. Hyperbola

D. Both (a) and (b)

#### Answer: D





**21.** A process where the diploid cell of an ovule outside the embryo sac developing into another embryo sac with reduction is known as

- A. Parthenogenesis
- B. Apospory
- C. Double fertilization
- D. Endosperm formation

#### Answer: B



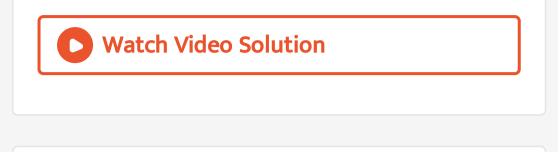
**22.** A specialized center called respiratory rhythm center is primarily responsible for the regulation of respiration . It is located in

A. Cerebellum

- B. the lower part of the brain
- C. the top portion of the brainstem

D. none of these

#### Answer: B



**23.** What is not the incorrect sequence of prophase I of meiosis ?

A. Leptotene , pachytene, zygotene ,

diakinesis diplotene

B. Diplotene , leptotene, pachytene,

zygotene, diakinesis

C. Diakinesis , diplotene , leptotene ,

zygotene ,pachytene .Leptotene ,

D. Leptotene , zygotene , pachytene ,

diplotene, diakinesis

Answer: D

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**24.** The principle organ in humans involved in the absorption of nutrients like glucose

,fructose, fatty acids , glycerol and amino acids

#### is

A. Stomach

B. Small intestine

C. Mouth

D. large intestine

Answer: B

**25.** Which character marks the beginning of the second phase of mitosis ?

A. Appearance of chromosomes

B. Initiation of spindle

C. Disintegration of nuclear envelope

D. Formation of equatorial plate

Answer: C

**26.** What are the steps of the endomembrane system ?

A. The proteins and lipids get wrapped in a vesicle, drifted to Golgi, attach to cis -Golgi, move through Golgi, exit trans -Golgi in a new vesicle, drift to the cell membrane, and exocytosis. B. The proteins and lipids get wrapped in a vesicle, drifted to the endosplasmic

reticulum, attach to trans Golgi, move

through Golgi , exit cis Golgi in a new vesicle , drift to the cell membrane , and exocytosis . C. The carbohydrates and lipids get

warpped in a vesicle , drifted to Golgi ,

attach to cis Golgi, move through Golgi,

exit trans Golgi in a new vesicle, drift to

the cell membrane, and exocytosis.

D. The nucleic acids and lipids get wrapped

in a vesicle , drifted to the endoplasmic

reticulum, attach to trans Golgi , move through Golgi , exit cis Golgi in a new vesicle , drift to the cell membrane , and exocytosis .

Answer: A

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**27.** A fleshy folds of tissue , which extends down from mons pubis and surrounds vaginal orifice is

A. labia minora

B. labia majora

C. clitoris

D. hymen

Answer: B

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28. Read the following four statements (i -iv)

(i) Every chromosome essentially has a primary

constriction or the centromere.

(ii) During different stages of cell division, cells show structured chromosomes in place of the nucleus .

(iii) Nuclear pores are the passages through which movement of RNA and Protein takes place in one direction between the nucleus and cytoplasm.

(iv) Chromatin contains DNA, some basic proteins called histone adn RNA only .

How many of the above statement are

A. Four

B. One

C. Two

D. Three

Answer: C



29. An inverted pear - shaped organ attached

to the pelvic wall involved in reproduction is

A. Womb

**B.** Uterus

C. Breast

D. Both (a) and (b)

Answer: D



30. Shape of the cell may vary depending on

A. Mode of nutrition

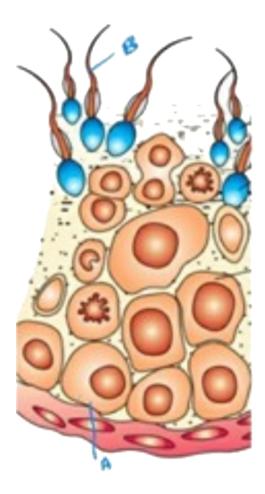
B. Type of nucleus

C. The volume of cytoplasm

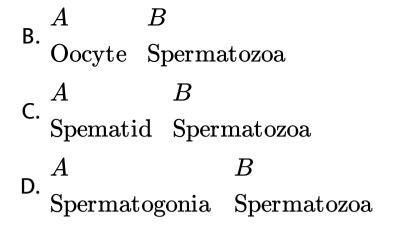
D. Function they perform

Answer: D

# **31.** Identify the structures labelled as A and B.



A. A = BSpermatogonia Spermatid



#### Answer: D

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# **32.** Which one of the following statements pertaining to plant structure is correct ?

A. The shoot apical meristem has a

quiescent centre.

B. Cork lacks stomata but lenticels carry

out transpiration

C. Passage cells help in transfer of food

from cortex to phloem

D. Sieve tube elements possess cytoplasm

but no nuclei.

Answer: D

**33.** The oral contraceptives developed by CDRI has lesser side effects because it

A. contains a non - steroidal preparation

B. contains both estrogen and

progesterone

C. inhibits ovulation and implantation

D. has to be taken for a period of 21 days .







**34.** When a meristematic tissue "Cambium" is present inside a vascular bundle, the bundle is said to be

A. Conjoint

B. Open

C. Closed

D. Collateral

Answer: B



# 35. Which of the following barrier methods are

made of rubber ?

A. Cervical cap

B. Multiload 375

C. Progestasert

D. Lippes loop

Answer: A



**36.** which of the following is not correct with respect to binomial nomenclature ?

A. The naming system of binomial nomenclature was given by Carolus
Linnaeus is being practised by biologists all over the world .
B. Both the word in a biological name ,

when handwritten , are separately

underlined , or printed in italics to

indicate their Latin origin

C. The first word starts with a capital letter

while the second one starts with a small

letter .

D. The first word in biological name

represents the specific epithet while the

second component denotes the genus.

Answer: D

**37.** A person injured in a road accident and requiring and urgent immune response was brought to a doctor.

(a) What did the doctor immediately do?

(b) What kind of an immunity was he providing to the patient.

(c) Define this kine of immunity.

A. Artificially acquired active immunity

B. Naturally acquired active immunity

C. Naturally acquired passive immunity

D. Artificially acquired passive immunity

#### Answer: D

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**38.** What is the function of the rich protein layer found in Euglena instead of a cell wall ?

A. It contributes to photosynthesis .

B. It helps in locomotion

C. It contributes to flexibility

heterotrophic in the absence of sunlight.

Answer: D

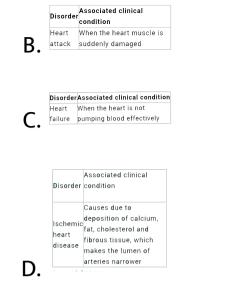
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# 39. choose the incorrect match with respect to

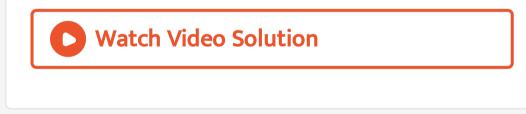
disorder and their associated clinical

# condition .





#### Answer: C



**40.** Assertion : The megaspore mother cell divides mitotically to produce four spores

Reason : Megaspore mother cells are diploid and megaspore is haploid.

A. Both statements are true and statement

II is a correct explanation of Statement I.

B. Both statements are true but statement

II is not a correct explanation of

Statement I.

C. Statement I is true but statement II is

wrong.

## D. Statement I is wrong but statement II is

true.

#### Answer: D



# **41.** Cannabinoid receptors are principle

present in

A. Brain

B. Bone marrow

C. Muscles

D. Gonads

#### Answer: A



**42.** If diploid chromosome number in a flowering plant is 12, then which one of the following will have only 6 chromosomes

A. Endosperm

B. Leaf cells

C. Cotyledons

D. Synergids

Answer: D

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**43.** The change of frequency of alleles in a population would result in

A. Evolution

B. Inbreeding

- C. Gene migration
- D. Genetic equilibrium

Answer: A

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44. How many of the following statements is / are incorrect ?A. Nuclear type of endosperm is the rarest type of endosperm ,in which the nucleus

remains intact.

B. Cellular type of endosperm involves bothkaryokinesis and cytokinesis, simultaneously.C. Cellular type of endosperm is found incoconut .

A. One

B. Two

C. Three

D. None

Answer: B





45. A more ape - like from was observed in ......

While ...... Was more man - like .

A. Dryopithecus and Ramapithecus

B. Ramapithecus and Java mas

C. Java man and Peking man

D. Neanderthal man and Cro - magnon man

#### Answer: A

46. Nucellar embryo is

A. Apomictic haploid

B. Apomictic diploid

C. Amphimictic haploid

D. Amphimictic diploid

Answer: B

47. The size of the brain of Neanderthal is

about

А. 1400 сс

B. 900 cc

С. 600 сс

D. 1600 cc

Answer: A



**48.** The period of viability in seeds vary from species to species . Which of the following plants has seeds with the highest recorded period of viability ?

A. Orobanche uniflora

B. Striga asiatica

C. Phoenix dactylifera

D. Lupinus arcticus

#### Answer: D





**49.** Which of the statement about breeding is

wrong

- A. By inbreeding purelines cannot be evolved
- B. Continued inbreeding, especially close

inbreeding increases fertility and

productivity

C. Cross - breeding allows desirable

qualities of two different breeds to be

combined

D. Inbreeding exposes harmful recessive

genes that are eliminated by selection

Answer: B

**50.** Which of the following groups of plants are propagated through underground root

A. Ginger , Potato , onion and zamikand

B. Bryophyllum and Kalanchoe

C. Pistia , Chrysanthemum and pineapple

D. Sweet potato , Asparagus , Tapioca and

Dahlia

Answer: D



**51.** Arrange the following structures according to their decreasing number .

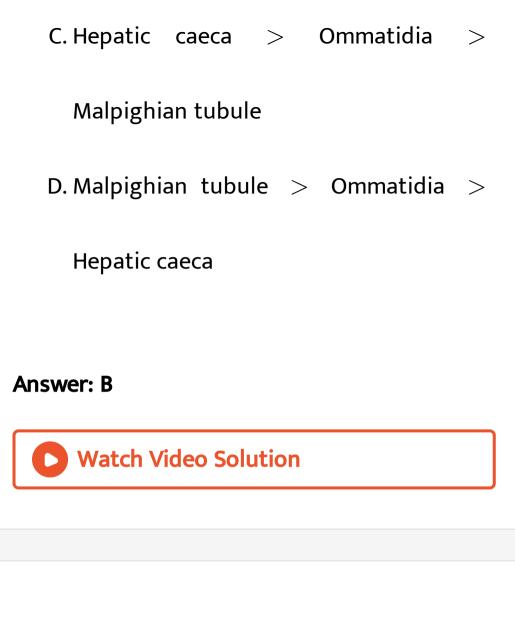
- 1. Hepatic or gastric caeca
- 2. Malpighian tubules
- 3. Ommatidia

A. Malpighian tubule > Ommatidia >

Hepatic caeca

B. Ommatidia > Malpighian tubule >

Hepatic caeca



**52.** If a double - stranded DNA has 30% of guanine , what will be the percentage of adenine and thymine base pairs ?

A. 20~%

B. 30~%

 $\mathsf{C.}\,40~\%$ 

D. 60~%

Answer: C



**53.** How many of the following substances given in the list below are secretes by exocrine glands ?

Saliva, oil, digestive, enzymes, thyroxine, FSH,

mucus, insulin, earwax.

A. Five

B. Four

C. Six

D. Three

Answer: A



**54.** When a phosphate group is linked to '5' OH of deoxyadenosine by phosphodiester linkage , a corresponding nucleotide is formed, which is

A. Adenosine

B. Adenylic acid

C. Adenine

D. Deoxyadenylic acid

Answer: D

55. Comb plates for locomotion are found in :

A. Porifera

B. Cnidaria

C. Ctenophora

D. Mollusca

Answer: C

**56.** Which of the following is incorrect about nucleosome ?

A. Histones are organized to form a unit of eight molecules called a histone octamer
B. The negatively charged DNA is wrapped around the positively charged histone ostamer .

C. Nucleosome constitute the repeating unit of a structure in nucleus called chromatin

D. The nucleosome in chromatin are seen

as 'Beads on string' structure when

viewed under light microscope.

Answer: D

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57. Which of the following organisms is not

radially symmetrical ?

A. Pila

- **B.** Echinus
- C. Cucumaria
- D. Ctenoplane

Answer: A



**58.** To determine the type of organic compounds found in living organisms, the living tissue is ground in

- A. Trichloroacetic acid
- B. Trichloroamino acid
- C. Trichlorobenzoic acid
- D. Trichlorobutyric acid

Answer: A

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**59.** Which of the following present in maximum percentage in living matter ?

A. Carbon

- B. Nitrogen
- C. Oxygen
- D. Potassium

#### Answer: C



**60.** Which of the following organism is not radially symmetrical ?

- A. Reptiles and birds
- B. Snails and insects
- C. Insects and birds
- D. All of the above

Answer: D

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61. How does an enzyme catalyze a reaction ?

A. By increasing activation energy of the

reaction

B. By decreasing activation energy of the

reaction

- C. By supplying heat energy
- D. First increases and then decreases

activation energy

Answer: B

**62.** By an angiogram ,it was analyzed that there is a restriction to the flow of blood in the blood vessels. Which of the following disease can arise due to such a medical condition ?

A. Angina pectoris and coronary artery disease

B. Heart failure and AMS

C. Diabetes and arteriosclerosis

D. Emphysema and atherosclerosis





**63.** Which of the following fruit develops from monocarpellary or multicarpellary syncarpous ovary and forms a single fruit ?

A. Simple fruit

- B. Aggregate fruit
- C. Multiple fruit
- D. Composite fruit





**64.** Which of the following is not medicinal plant ?

A. Muliathi

B. Aloe vera

C. Belladona

D. Indigofera

#### Answer: D



**65.** Which of the following statement is incorrect ?

A. In Australian acacia , the petioles expand, become green and synthesize food. B. If more than two leaves arise at a node and form a whorl, it is called whorled, as in mustard. C. In palmately compound leaves, the leaflets are attached at a common point, i.e., at the petiole, as in silk cotton. D. Leaves of dicotyledonous plants generally possess reticulate venation, while parallel venation is the characteristic of most monocotyledons.

## Answer: B



# **66.** In monocotyledon seed, the outermost layer of endosperm is called

A. Aleurone layer

B. Scutellum

C. Coleoptile

D. Coleorhizae

## Answer: A



**67.** According to Allen's rule, the mammals from cold climate have

A. Shorter ears and longer limbs

B. Shorter ears and shorter limbs

C. Longer ears and shorter limbs

D. Longer ears and longer limbs

## Answer: B



**68.** If a superior competitor is removed from the area, there is always an increased population of the otherwise exploited species. This phenomenon is called

A. Competitive inclusion

B. Competitive release

C. Gause's principle

D. Resource portioning

#### Answer: B

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## 69. Match the gases in column - I with their

#### source in column - II.

	Column-I		Column- II
(A)	Nitrous oxide (N <sub>2</sub> O)		Secondary pollutant from car exhausts
(B)	Chlorofluorocarbons (CFCs)	(2)	Combustion of fossil fuels, wood, etc.
	Methane (CH <sub>4</sub> )	(3)	Denitrification
(D)	Ozone (O <sub>3</sub> )	(4)	Refrigerators, aerosol, sprays
(E)	Carbon dioxide (CO <sub>2</sub> )	(5)	Cattle dung and toilets

A.  $A \quad B \quad C \quad D \quad E$ Β.  $5 \ 1 \ 3 \ 4 \ 2$  $A \quad B \quad C \quad D \quad E$ D.

#### Answer: A

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**70.** Water ( prevention and control of pollution ) Act was passed in the year

A. 1974

B. 1987

C. 1995

D. 1986

Answer: A



**71.** Which of the following is incorrect about the experiment performed by T. W. Engelmann

A. The experimental organism used was
Cladophora (green algae).
B. For the experimental purpose, the suspension of aerobic bacteria was utilized .

C. The bacteria accumulated mainly in the region of the orange and green parts of the light spectrum.
D. For splitting of light into its spectral

component prism was used .





**72.** Find out the incorrect statement from the following.

A. Dark reaction depends on the product

formed by light reaction.

B. In stroma, enzymatic reactions

incorporates  $CO_2$  into the plant leading

to the synthesis of sugar.

C. Purple and green sulphur bacteria use

H2 S as hydrogen donor.

D. There is no division of labour in chloroplast.

Answer: D

**73.** Which of the following reaction involved substrate - level phosphorylation ?

A. 2 - phoshoglycerate to 2

phosphoenolpyruvate

B. Fructose to Fructose - 6 - phosphate

C. Phosphoenolpyruvic acid to pyruvic acid

D. Fructose 1, 6 -bisphosphate to PGAL and

DHAP







**74.** In an electron transport chain , the cytochrome which donates electrons to  $O_2$  is

A. Cytochrome b

B. Cytochrome c

C. Cytochrome  $a_3$ 

D. Cytochrome a

Answer: C

**75.** The following experiment was performed to test the effect of auxin on the plant growth . Five plant seedlings (all growing actively) were prepared as below , they were unilaterally illuminated ,and growth was measured after 10 days.

Treatments :

Plant A : Tip not removed , nothing applied Plant B : Tip removed , nothing applied Plant C : Tip removed , gelation block with cytokinin was placed on the cut edge Plant D : Tip removed gelation block with auixn

placed on the cut edge.

A. A and B

B. A and D

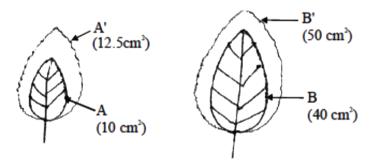
C. B and C

D. A, B, C and D

**Answer: B** 

**76.** In the below diagrams, A and B are initial areas of leaves. A ' and B are areas of leaves after growth . Which of the following is correct

?



A. Both relative and absolute growth of

leaves are same

B. Absolute growth is same , but relative

growth is different

C. Absolute growth is different , but

relative growth is the same

D. Both absolute and relative growth of

leaves are different

Answer: C

**77.** Conversion of milk to curd improves its nutritional value of increasing the amount of

A. Vitamin D

B. Vitamin  $B_{12}$ 

C. Vitamin A

D. Vitamin E

Answer: B

78. The process of recovery and purification of

the expressed biological products is called

A. Downstream processing

B. Bioprocessing

C. Postproduction processing

D. Upstream processing

Answer: A

**79.** The following features belong to which syndrome ?

(i furrowed tongue

(ii) palm is broad with crease

(iii) physical , psychomotor and mental

retardation

(iv ) short stature with the small round head

- A. Down's syndrome
- B. AIDS
- C. Turner's syndrome

D. Klinefelter's syndrome

Answer: A

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**80.** Find out the total number of mendelian disorders from the following :

Cystic fibrosis , Haemophilia, sickle cell anaemia , colour blindness , Thalassemia, phenylketonuria B. 5

C. 6

D. 3

## Answer: C

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**81.** A diseased man marries a normal women. They have three daughters and five sons. All the daughters were diseased and sons were normal. The gene of this disease is

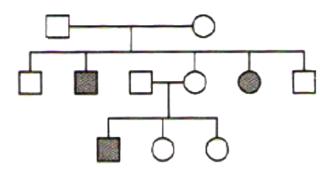
- A. Sex linked dominant
- B. Sex-linked recessive
- C. Autosomal recessive
- D. Autosomal dominant

Answer: A



82. Analyze the pedigree chart that is given

below and select the correct option.



# A. Inheritance of a sex - linked inborn error

## of metabolism like phenylketonuria

B. Inheritance	of		condi	tion	like
Phenylketonuri	а	as	an	autos	omal
recessive trait					

C. The pedigree chart is wrong as this is

not possible

D. Inheritance of a recessive sex - linked

disease like haemophilia

Answer: B

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83. Name the blank spaces a,b,c and d from the

table given below.

Type of Microbe	Scientific Name	Commercial Product	
Bacterium	a	Lactic acid	
Fungus	b	Cyclosporin-A	
c	Monascus purpureus	Statin	
Fungus	Penicillium notatum	d	

A. a = Lactobacillus

b = Cyclosporum Ploysporum

c = Fungus

d = Penicillin

B. a = Lactobacillus

b = Trichoderma Polysporum

c = Yeast

d = Penicillin

C. a = Lactobacillus

b = Trichoderma Polysporum

c = Bacteria

d = Red mould

D. a = Lactobacillus

b = Trichoderma Polysporum

c = Fungus

d = Black mould

#### Answer: B

**84.** An individual homozygous for genes cd is crossed with type and  $F_1$  Crossed back with the double recessive . The appearance of the

offspring is as follows

$+ + \rightarrow$	903
cd  ightarrow	897
+d  ightarrow	98
c+ ightarrow	102

The distance between the genes c and d is

A. 20 map units

B. 9.8 map units

C. 10.2 map units

D. 10 map units

## Answer: D



# **85.** Which of the following represents the steps involved in developing GMOs ?

A. Identification of DNA with desirable gene

B. Introduction of identified DNA into the

host .

C. Maintenance of introduced DNA in the

host and transfer of the DNA to its

progeny

D. All the above

Answer: D

86. The fragmented DNA can be visualized by

staining DNA with

A. NaCl

B. Ethidium bromide

C. Ethylene bromide

D. NaBr

**Answer: B** 

**87.** A : Recombinant DNA technologies process has been less effective in therapeutic drug production.

R : Recombinant therapeutics induce unwanted immunological responses.

A. Only statement - I is correct

B. Only statement - II is correct

C. Both statements are correct

D. Both statement are incorrect

Answer: D



# 88. Which group of vertebrates comprises the

# highest number of endangered species

A. Birds

B. Mammals

C. Fishes

D. Reptiles

Answer: B

**89.** In the world summit on sustainable development held in 2002 in Johannesburg, South Africa, how many countries pledged their commitment to achieve a significant reduction in the current rate of biodiversity loss at global, regions and local levels by 2010 ?

A. 100

B. 180

D. 200

#### Answer: C

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**90.** Read the following statements carefully : ( i ) primary succession is a very slow process taking thousands of years for the climax to be reached.

(ii) The energy at a higher trophic level is always more than at a lower level

(iii) Bacterial and fungal enzymes degrade
detritus into simple inorganic substances. This
process is called fragmentation .
(iv ) All succession, whether taking place in
water or on land, proceeds to a similar climax

community : the mesic condition . Which of

the two above statements are correct ?

A. (i) and (ii)

B. (ii) and (iii)

C. (i) and (iv)

D. (iii) and (iv)



