

1. Hormonal control of the secretion of digestive juices is carried out by the:
 1. Secretion of the hypothalamic releasing and inhibitory factors into a portal vein
 2. Synthesis of tropins by the anterior lobe of pituitary gland
 3. Sympathetic division of the autonomic nervous system via the vagus nerve
 4. Local hormones produced by gastric and intestinal mucosa
2. When the stroke volume of the ventricles is much less than the expected values, the heart is said to be:
 1. Fibrillating
 2. Blocked
 3. Arrested
 4. Failing
3. The net filtration pressure at the glomerulus that results in the formation of ultrafiltrate is
 1. about equal to arterial blood pressure at 100 mmHg
 2. partially due to the very low colloid osmotic pressure of plasma
 3. opposed by the high osmotic pressure of ultrafiltrate
 4. estimated to be approximately 10 mmHg
4. At the birth of the female child, the follicles in her ovaries contain:
 1. Primary oocytes that have been arrested at the S phase of the cell cycle
 2. Primary oocytes that have been arrested at the Prophase I of Meiosis I
 3. Secondary oocytes that have been arrested at the Prophase I of Meiosis I
 4. Secondary oocytes that have been arrested at the Metaphase II of Meiosis II
5. In 2005, for each of the 14 million people present in a country, 0.028 were born and 0.008 died during the year. Using exponential equation, the number of people present in 2015 is predicted as:(NCERT Exemplar)
 1. 25 million
 2. 17 million
 3. 20 million
 4. 18 million
6. A cell organelle containing hydrolytic enzymes is (NEET-2-2016)
 1. mesosome
 2. lysosome
 3. microsome
 4. ribosome
7. Why vivipary is an undesirable character for annual crop plants? (AIPMT. 2005)
 1. It reduces vigour of the plant.
 2. It adversely affects the fertility of the plant
 3. The seeds exhibit long dormancy
 4. The seeds cannot be stored under normal conditions for next season.
8. In cereal grain, single cotyledon is represented by (AIPMT. 2006)
 1. Coleoptile
 2. Coleorhiza
 3. Scutellum
 4. Prophyll.
9. Which one of the following statements is correct? (AIPMT- 2014)
 1. The seed in grasses is not endospermic.
 2. Mango is a parthenocarpic fruit
 3. A proteinaceousaleurone layer is present in maize grain.
 4. A sterile pistil is called a staminode.
10. Non- albuminous seed is produced in: (AIPMT- 2014)
 1. Maize
 2. Castor
 3. Wheat
 4. Pea
11. Select the wrong statement. (NEET-II-2016)
 1. Mycoplasma is a wall-less microorganism
 2. Bacterial cell wall is made up of peptidoglycan
 3. Pili and fimbriae are mainly involved in motility of bacterial cells
 4. Cyanobacteria lack flagellated cells
12. Which of the following rRNAs acts as structural RNA as well as ribozyme in bacterial? (NEET-II-2016)
 1. 5-8s rRNA
 2. 5S rRNA
 3. 18 S rRNA
 4. 23S rRNA

13. All the following would be characteristics of a general reptile except:
1. Dermal scales or scutes
 2. Poikilothermy
 3. Direct development
 4. Heart usually three chambered
14. Which of the following plant diseases is not caused by a fungus?
1. Late blight of potato
 2. Loose smut of wheat
 3. Canker in citrus
 4. Powdery mildew of grape vine
15. Which of the following organisms, earlier placed in Animal Kingdom, is placed under Kingdom Protista in Whittaker's classification?
1. Ameobaproteus
 2. Chlamydomanas
 3. Gonyaulax
 4. Chlorella
16. Which of the following is not a green alga?
1. Ulothrix
 2. Chara
 3. Volvox
 4. Ectocarpus
17. Match Column I with Column II and select the correct option using the codes given below: (NEET-II 2016)

	Column I		Column II
a.	Citric acid	(i)	Trichoderma
b.	Cyclosporin A	(ii)	Clostridium
c.	Statins	(iii)	Aspergillus
d.	Butyric acid	(iv)	Monascus

Codes:

- (a) (b) (c) (d)

1. (iii) (i) (iv) (ii)
2. (i) (iv) (ii) (iii)
3. (iii) (iv) (i) (ii)
4. (iii) (i) (ii) (iv)

18. Pollen grains can be stored for several years in liquid nitrogen having a temperature of (NEET 2018)
1. - 196°C
 2. - 80°C
 3. - 120°C
 4. - 160°C

19. To obtain virus - free healthy plants from a diseased one by tissue culture technique, which part/parts of the diseased plant will be taken ? (AIPMT-2014)
1. Apical meristem only
 2. Palisade parenchyma
 3. Both apical and axillary meristems
 4. Epidermis only

20. If both parents are carrier for thalassaemia, which is an autosomal recessive disorder, what are the chances of pregnancy resulting in an affected child ? (NEET- 2013)
1. 50%
 2. 25 %
 3. 100%
 4. no chance

21. Which Mendelian idea is depicted by a cross in which the F1 generation resembles both the parents? (NEET- 2013)
1. law of dominance
 2. inheritance of one gene
 3. co-dominance
 4. incomplete dominance

22. Which of the following statements is not true of two genes that show 50% recombination frequency? (NEET- 2013)
1. The genes are tightly linked
 2. The genes show independent assortment

3. If the genes are present on the same chromosome, they undergo more than one crossovers in every meiosis
4. The genes may be on different chromosomes

transmitted diseases (Column -I) with their causative agent (Column - II) and select the Correct option. (NEET-2017)

23.

The incorrect statement with regard to Haemophilia is : (NEET- 2013)

1. It is a recessive disease
2. It is a dominant disease
3. A single protein involved in the clotting of blood is affected
4. It is a sex-linked disease

Column - I

Column - II

(a) Gonorrhoea (i) HIV

(b) Syphilis (ii) Neisseria

(c) Genital Warts (iii) Treponema

(d) AIDS (iv) Human Papilloma - Virus

24.

Fruit colour in squash is an example of : (AIPMT- 2014)

1. Recessive epistasis
2. Dominant epistasis
3. Complementary genes
4. Inhibitory genes

Options:

(a) (b) (c) (d)

25.

Person with blood group AB is considered as universal recipient because he has: (AIPMT- 2014)

1. both A and B antigens on RBC but no antibodies in the plasma.
2. both A and B antibodies in the plasma.
3. no antigen on RBC and no antibody in the plasma
4. both A and B antigens in the plasma but no antibodies

26.

A man whose father was colour blind marries a woman who had a colourblind mother and normal father. What percentage of male children of this couple will be colour blind? (AIPMT- 2014)

1. 25%
2. 0%
3. 50%
4. 75%

1. (ii) (iii) (iv) (i)

2. (iii) (iv) (i) (ii)

3. (iv) (ii) (iii) (i)

4. (iv) (iii) (ii) (i)

27.

A human female with Turner's syndrome: (AIPMT- 2014)

1. has 45 chromosomes with XO
2. has one additional X chromosome.
3. exhibits male characters
4. is able to produce children with normal husband.

30.

Which one of the following fruits is parthenocarpic? (Re-AIPMT - 2015)

1. Apple
2. Jackfruit
3. Banana
4. Brinjal

28.

Asthma may be attributed to : (NEET-2016)

1. accumulation of fluid in the lungs
2. bacterial infection of the lungs
3. allergic reaction of the mast cells in the lungs
4. inflammation of the trachea

31.

Filiform apparatus is characteristic feature of: (Re-AIPMT - 2015)

1. Nucellar embryo
2. Aleurone cell
3. Synergids
4. Generative cell

29.

Match the following sexually

32.

The wheat grain has an embryo with one, large, shield-shaped cotyledon known as: (Re-AIPMT - 2015)

1. Coleorrhiza
2. Scutellum
3. Coleoptile
4. Epiblast

33.

In angiosperms, microsporogenesis and megasporogenesis: (Re-AIPMT - 2015)

1. form gametes without further divisions
2. Involve meiosis
3. occur in ovule
4. occur in anther

34.

Proximal end of the filament of stamen is attached to the: (NEET-I-2016)

1. Thalamus or petal
2. Anther
3. Connective
4. Placenta

35.

A complex of ribosomes attached to a single strand of RNA is known as: (NEET-1-2016)

1. Okazaki fragment
2. Polysome
3. Polymer
4. Polypeptide

36.

Which of the following is not required for any of the techniques of DNA fingerprinting available at present? (NEET-1-2016)

1. DNA -DNA hybridization
2. Polymerase chain reaction
3. Zinc finger analysis
4. Restriction enzymes

37.

Which one of the following options gives one correct example each of convergent evolution and divergent evolution? (AIPMT PRE 2012)

Convergent evolution

Divergent evolution

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Bones of forelimbs of vertebrates 2. Thorn of Bougainvillea and tendrils of Cucurbita | <ol style="list-style-type: none"> Wings of butterfly and birds Eye of Octopus and mammals |
|---|--|

3.

Eye of Octopus and mammals

Bones of forelimbs of vertebrates

4.

Thorns of Bougainvillea and tendrils of Cucurbita

Wings of butterfly and birds

38.

Evolution of different species in a given area starting from a point and spreading to other geographical areas is known as (AIPMT PRE 2012)

1. Migration
2. Divergent evolution
3. Adaptive radiation
4. Natural selection

39.

What is the most significant trend in the evolution of modern man (*Homo sapiens*) from the ancestors? (AIPMT PRE 2012)

1. Increasing cranial capacity
2. Upright posture
3. Shortening of jaws
4. Binocular vision

40.

The idea of mutation was brought forth by (AIPMT MAINS 2012)

1. Hardy Weinberg, who worked on allele frequencies in a population
2. Charles Darwin, who observed a wide variety of organism during sea voyage.
3. Hugo de Vries, who worked on evening primrose
4. Gregor Mendel, who worked on *Pisum Sativum*.

41.

The process by which organisms with different evolutionary history evolve similar phenotypic adaptations in response to a common environmental challenge is called (NEET 2013)

1. Natural selection
2. Convergent evolution
3. Non-random evolution
4. Adaptive radiation

42.

The eye of octopus and eye of cat show different patterns of structure, yet they perform similar function. This is an example of (NEET 2013)

1. Homologous organs that

have evolved due to convergent evolution

2. Homologous organs that have evolved due to divergent evolution
3. Analogous organs that have evolved due to convergent evolution
4. Analogous organs that have evolved due to divergent evolution

43.

Variation in gene frequencies within populations can occur by chance rather than by natural selection. This is referred to as (NEET 2013)

1. Genetic flow
2. Genetic drift
3. Random mating
4. Genetic load

44.

Cancer detection is mainly based on :

1. Radiography
2. Ultrasonography
3. Magnetic resonance imaging
4. Histopathology

45.

HIV selectively infects and destroys :

1. CD4 T Lymphocytes
2. CD8 T Lymphocytes
3. T-Suppressor cells
4. B-Lymphocytes

46.

PusaSem 2, a variety of flat bean, is resistant to all the following pests except:

1. Aphids
2. Jassids
3. Fruit borer
4. Bollworm

47.

The gene for the enzyme Phenylalanine hydroxylase is located on chromosome:

1. 7
2. 11
3. 12
4. X

48.

Consider the following statements regarding

Y chromosome in humans:

- I. Y chromosome is male-determining chromosome in humans
- II. Y chromosome contains a gene, SRY, which triggers embryonic development as a male
- III. 50 % of sons of a male inherit his Y chromosome

Of the given statements, the correct statements are:

1. I and II only
2. I and III only
3. II and III only
4. I, II and III

49.

Mating between black rats of identical genotype produced offspring as follows: 14 cream colored, 47 black and 19 albino. This ratio can be explained if the phenomenon exhibited here is:

1. Recessive epistasis
2. Polygenic inheritance
3. Multiple allelism
4. Incomplete penetrance

50.

SNPs in human genome are located at about:

1. 1.4 million locations
2. 1.7 million locations
3. 2.1 million locations
4. 2.4 million locations

51.

Satellite DNA:

1. Form a small portion of the human genome
2. Code for proteins that are essential for survival
3. Code for proteins that are not essential for survival
4. Show high degree of polymorphism

52.

The technique of DNA fingerprinting was developed initially by:

1. Alfred Sturtevant
2. Alec Jeffrys
3. Thomas Cech
4. Fire and Mello

53.

Southern blotting is transfer to nitrocellulose sheet from agar gel of:

1. RNA

2. Proteins
3. DNA
4. Lipids
54.
The size of VNTR varies from:
1. 0.1 to 20 kb
2. 0.1 to 2.0 mb
3. 0.1 to 0.2 bp
4. 0.1 to 2.0 bp
55.
For the multiplication of any alien piece of DNA in an organism it needs to be a part of a chromosome that has a specific:
1. Telomeric sequence
2. Multiple cloning site
3. Ori
4. Selectable marker
56.
Griffith co-injected the heat killed S and live R strains of Pneumococcus bacterium into the mice and much to his surprise the mice developed pneumonia and died. He concluded that:
I. Live R were transformed into Live S strain as he was able to isolate Live S strain from the blood of the infected mice.
II. Bacterial transformation is a stable and heritable change as the culture of bacteria isolated from dead mice were unable to infect other mice.
1. Both I and II are correct
2. Only I is correct
3. Only II is correct
4. Both I and II are incorrect
57.
The radius of the double helix of B-DNA [Watson and Crick model] is approximately:
1. 1.0 nm
2. 2.0 nm
3. 0.34 nm
4. 3.4 nm
58.
The bacterium *Bacillus thuringiensis* is widely used in contemporary biology as (AIPMT 2009)
1. Source of industrial enzyme
2. Indicator of water pollution.
3. Insecticide.
4. Agent for production of dairy products.
59.
DNA or RNA segments tagged with a radioactive molecule is called (AIPMT PRE 2010/PRE 2012)
1. Vector.
2. Probe.
3. Clone.
4. Plasmid.
60.
Which one of the following is now being commercially produced by biotechnological procedures? (AIPMT MAIN 2010)
1. Morphine
2. Quinine
3. Insulin
4. Nicotine
61.
Read the following four statements (a-d) for certain mistakes in two of them. (AIPMT MAINS 2011)
a. The first transgenic buffalo, Roise 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 recombinant DNA technology.
d. Disarmed pathogen vectors are also used in transfer of recombinant DNA into the host.
Which are the two statements having mistakes?
1. Statements (a) and (b)
2. Statements (b) and (c)
3. Statements (c) and (d)
4. Statements (a) and (c)
62.
Which of the following is commonly used as a vector for introducing a DNA fragment in human lymphocytes? (NEET 2018)
1. Λ phage
2. Ti plasmid
3. Retrovirus
4. pBR 322
63.
A foreign DNA and plasmid cut by the same restriction endonuclease can be joined to form a recombinant

plasmid using (NEET-II 2016)

1. Taq polymerase.
2. Polymerase III.
3. Ligase.
4. EcoRI

64.

In human population the frequency of which of the following will always be more than what is apparent?

1. somatic mutations
2. dominant alleles
3. recessive alleles
4. females

65.

Persons with sickle cell trait are resistant to severe malaria. This shows:

1. heterozygote advantage
2. heterosis
3. punctuated equilibrium
4. reverse evolution

66.

The most critical evolutionary process, that leads to changes in allele frequencies and favors or promotes adaptation as a product of evolution :

1. Genetic drift
2. Gene migration
3. Mutation
4. Natural selection

67.

In modern terms, selection refers to :

1. inheritance of dominant characters
2. differential reproduction
3. a decrease in allele frequency in a population
4. differences in the contribution of various genotypes to the next generation

68.

The work of which of the following scientists led to the establishment of the discipline of modern biotechnology?

1. Banting and Best
2. Bolivar and Rodriguez
3. Hershey and Chase
4. Cohen and Boyer

69.

The construction of first rDNA emerged from the possibility of linking a gene encoding antibiotic resistance with a native plasmid of:

1. Salmonella typhimurium
2. Escherichia coli
3. Agrobacterium tumefaciens
4. Haemophilus influenzae

70.

The ability of plasmids and bacteriophage DNA to replicate within bacterial cells:

1. depends on a particular ori sequence of the main chromosomal DNA
2. is possible due to promoter sequence present in the insert
3. cannot occur without telomeric sequences
4. is independent of the control of chromosomal DNA

71.

What controls the copy number of linked DNA if plasmid is used as a vector in bacterial transformation?

1. Ori
2. rop
3. Selectable markers
4. Promoter in the insert

72.

The difference between spermiogenesis and spermiation is

- (1) In spermiogenesis spermatozoa from sertoli cells are released into the cavity of seminiferous tubules, while in spermiation spermatozoa are formed.
- (2) In spermiogenesis spermatozoa are formed, while in spermiation spermatids are formed.
- (3) In spermiogenesis spermatids are formed, while in spermiation spermatozoa are formed
- (4) In spermiogenesis spermatozoa are formed, while in spermiation spermatozoa are released from sertoli cells into the cavity of seminiferous tubules

73.

The inhibition of succinic dehydrogenase by malonate is an example of:

1. Non-competitive reversible inhibition
2. Non-competitive irreversible inhibition
3. Competitive inhibition
4. Allosteric inhibition

74.

The enzymes that catalyse removal of groups from substrates by mechanisms other than hydrolysis leaving double bonds are called as:

1. Oxidoreductases
2. Hydrolases
3. Ligases
4. Lyases

75.

Consider the following enzymes:

- I. Catalase
- II. Peroxidase
- III. Carboxypeptidase

Which of these enzymes require haem as a cofactor for their activity?

1. I only
2. I and II only
3. II and III only
4. I, II and III
76.
With respect to meiosis, when does DNA replication occur?
1. Before meiosis I only
2. After meiosis I only
3. Before and after meiosis I
4. After meiosis II
77.
The phase of mitosis in which the spindle fibers break apart, two new nuclear membranes begin to form, and the chromosomes disperse into chromatin is
1. metaphase
2. telophase
3. anaphase
4. prophase
78.
The most important significance of meiosis is that:
1. It increases variations in the gene pool of the species that helps in evolution of that species.
2. It causes growth in the multicellular organisms
3. It conserves specific number of chromosomes in each species across generations
4. It is vital for repair and regeneration functions in the living organisms.
79.
Consider the following statements regarding meiosis:
I. At metaphase I the microtubules from the opposite poles of the spindle attach to the pair of homologous chromosomes.
II. At anaphase I, the homologous chromosomes separate, while sister chromatids remain associated with each other.
Of the two statements:
1. Only I is correct
2. Only II is correct
3. Both I and II are correct
4. Both I and II are incorrect
80.
During meiosis, the bivalent chromosomes clearly appear as tetrads first at:
1. Zygotene of prophase I
2. Pachytene of Prophase I
3. Metaphase I
4. Anaphase I
81.
The main difference between active transport and facilitated diffusion is:
1. In active transport the molecules move from areas of high to areas of low concentration
2. In active transport, you need carrier proteins
3. In active transport you need ATP to move molecules against a concentration gradient
4. In active transport, only water molecules move
82.
Calcium is important in skeletal muscle contraction because it
1. Detaches the myosin head from the actin filament
2. Activates the myosin ATPase by binding of it
3. Binds to troponin to remove the masking of active sites on actin for myosin
4. Prevents the formation of bonds between the myosin cross bridges and the actin filament
83.
Which hormone is antagonistic to insulin regarding its effects on carbohydrate, fat and protein metabolism?
1. Glucagon
2. Growth hormone
3. Melatonin
4. Cortisol
84.
What prevents the back flow of faeces from caecum into the small intestine?
1. ileo-caecal valve
2. ileo-caecal sphincter
3. vermiform appendix
4. taenia coli muscle
85.
ART [used to help infertile couples] stands for:
1. Assisted Reproductive Technologies
2. Artificial Reproductive Technologies
3. Augmented Reproductive Technologies
4. Anomalous Reproductive Technologies
86.
During pregnancy the levels of thyroxin:
1. Increase several folds in maternal blood
2. Increases several folds in fetal blood
3. Decreases several folds in maternal blood
4. Decreases several folds in fetal blood
87.
Which of the following is not produced in the woman only during pregnancy?

1. hCG
2. hPL
3. Relaxin
4. Oxytocin

88.

In human beings, the embryo heart is formed about after:

1. One month of pregnancy
2. Two months of pregnancy
3. First trimester of pregnancy
4. Second trimester of pregnancy

89.

What part of the early embryo differentiates into the three germ layers?

1. The trophoblast cells
2. Inner cell mass
3. Both
4. None

90.

The tympanic membrane:

1. is covered on both sides by skin
2. is covered on both sides by mucus membrane
3. is covered with skin on the outside and by mucus membrane on the inside
4. is covered with skin on the inside and by mucus membrane on the outside

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