

1. A type of arthritis that occurs when flexible tissue at the ends of bones wears down is called as:
  - A) gout
  - B) osteoarthritis
  - C) osteoporosis
  - D) rheumatoid arthritis
2. Union of the vas deferens with the duct of the seminal vesicle that pass that opens into the prostatic duct is:
  1. ampulla of vas
  2. ejaculatory duct
  3. urethra
  4. efferent ductules
3. How many sperms are formed from a secondary spermatocyte?
  1. 4
  2. 8
  3. 2
  4. 1
4. The region of the stomach into which the esophagus opens is called as:
  1. Cardiac
  2. Fundic
  3. Corpus
  4. Pyloric
5. Certain factors that can initiate coagulation of blood can be released by:
  - I. Platelets in the blood
  - II. Tissues at the site of injury
  - III. Liver
  1. I and II only
  2. I and III only
  3. II and III only
  4. I, II and III
6. Interstitial fluid resembles plasma in the same distribution of:
  1. Formed elements
  2. Proteins
  3. Minerals
  4. Enzymes
7. Which area actually secretes renin into the blood?
  1. macula densa
  2. juxtaglomerular apparatus
  3. juxtaglomerular cells
  4. cortical nephron
8. If a population of 50 Paramoecium present in a pool increases to 150 after an hour, what would be the percent growth or birth rate per individual per hour?(NCERT Exemplar)
  1. 100
  2. 200
  3. 50
  4. 150
9. Formation of non functional methaemoglobin causes blue baby syndrome. This is due to (AIIMS2005)
  1. Excess of arsenic in drinking water
  2. Excess of nitrate in drinking water
  3. Deficiency of iron in food
  4. Increased methane content in atmosphere
10. Cellulose, the most important constituent of plant cell wall is made of
 

**[AIIMS-2007]**

  - (1) Unbranched chain of glucose molecules linked by  $\alpha$  1, 4 glycosidic bond
  - (2) Branched chain of glucose molecules linked by  $\beta$  1, 4 glycosidic bond in straight chain and  $\alpha$  1, 6 glycosidic bond at the site of branching
  - (3) Unbranched chain of glucose molecules linked by  $\beta$  1, 4 glycosidic bond
  - (4) Branched chain of glucose molecules linked by  $\alpha$  1, 6 glycosidic bond at the site of branching
11. Identify the correct order of organisation of genetic material from largest to smallest: (Re-AIPMT-2015)
  1. Genome, chromosome, nucleotide, gene
  2. Genome, chromosome, gene, nucleotide
  3. Chromosome, genome, nucleotide, gene
  4. Chromosome, gene, genome, nucleotide
12. Casparian strips occur in (NEET-2018)
  1. Epidermis
  2. Endodermis
  3. Cortex
  4. Pericycle
- 13.

Dry indehiscent single-seeded fruits formed from bicarpellary syncarpous inferior ovary is (AIPMT-2008)

1. Berry
2. Cremocarp
3. Cypsela
4. Caryopsis.

14.

The primitive prokaryotes responsible for the production of biogas from the dung of ruminant animals, include the : (NEET-I-2016)

1. Eubacteria
2. Halophiles
3. Thermoacidophiles
4. Methanogens

15.

The placenta is attached to the developing seed near the

1. Testa
2. Hilum
3. Micropyle
4. Chalaza

16.

A plant tissue, when stained, showed the presence of hemicelluloses and pectin in cell wall of its cells. The tissue represents

1. Collenchyma
2. Sclerenchyma
3. Xylem
4. Meristem

17.

The blood concentration of glucose in a normal healthy individual is:

1. 3.5 – 4.0 mM
2. 4.0 – 4.5 mM
3. 4.5 – 5.0 mM
4. 5.0 – 5.5 mM

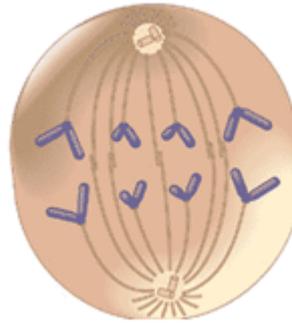
18.

Telomerase is an enzyme which is a:

1. Ribonucleoprotein
2. Simple protein
3. RNA
4. Repetitive DNA

19.

Which stage of meiosis is shown in the diagram given below?



1. Metaphase I
2. Metaphase II
3. Anaphase I
4. Anaphase II

20.

In meiosis:

1. A single round of DNA replication is followed by two sequential divisions with two chromosome number and DNA content getting reduced twice
2. A single round of DNA replication is followed by two sequential divisions with two chromosome number getting reduced twice and DNA content getting reduced once
3. A single round of DNA replication is followed by two sequential divisions with chromosome number getting reduced once and DNA content getting reduced twice
4. A single round of DNA replication is followed by two sequential divisions with two chromosome number and DNA content getting reduced once

21.

The mechanisms that contribute to the genetic variation arising from sexual reproduction include:

- I. Independent assortment of chromosomes
- II. Crossing over
- III. Random fertilization

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

22.

All the following are feature of non chordates except: [Page 55]

1. A dorsal heart, if present
2. Ventral, solid and double central nervous system
3. Absence of gill slits
4. Post anal tail

23.

Methanogens are commonly present in:

1. Alimentary canal of the lower invertebrates
2. Symbiotic relationships with xerophytic plants
3. Gut of ruminant animals
4. Close associations with corals

24.

Consider the following regarding the reasons for the fact that now Cyanobacteria are kept in Monera and not in Plantae:

- I. They are prokaryotes.
- II. The cell wall of cyanobacteria has peptidoglycan.
- III. They can fix atmospheric nitrogen

The correct explanations would be:

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

25.

Consider the following two statements:

- I. The spread of living pteridophytes is restricted to narrow geographical regions
- II. They are the first terrestrial plants to possess vascular tissues

1. Both I and II are correct and II explains I
2. Both I and II are correct but II does not explain I
3. I is true but II is false
4. I is false but II is true

26.

Which of the following regarding Cycas is incorrect?

1. Pinnate leaves persist for a few years
2. Male and female cones borne on different plants
3. Coralloid roots association with cyanobacteria
4. Homosporous gymnosperm

27.

During sewage treatment, biogases are produced which include (NEET 2013)

1. Methane, hydrogen sulphide, carbon dioxide
2. Methane, oxygen, hydrogen sulphide
3. Hydrogen sulphide, methane, sulphur dioxide
4. Hydrogen sulphide, nitrogen, methane

28.

Himgiri developed by hybridization and selection for disease resistance against rust pathogens is a variety of (AIPMT PRE 2011)

1. Wheat
2. Chilli
3. Maize

4. Sugarcane

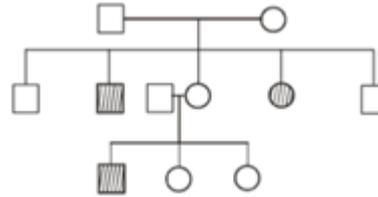
29.

The most popularly known blood grouping is the ABO grouping. It is named ABO and not ABC, because "O" in it refers to having: (AIPMT- 2009)

1. No antigens A and B on RBCs
2. Other antigens besides A and B on RBCs
3. Overdominance of this types on the genes for A and B types
4. One antibody only - either anti- A or anti-B on the RBCs

30.

Study the pedigree chart given below (AIPMT- 2009)



What does it show:

1. Inheritance of a recessive sex-linked disease like haemophilia
2. Inheritance of a sex-linked inborn error of metabolism like phenylketonuria
3. Inheritance of condition like phenylketonuria as an autosomal recessive trait
4. The pedigree chart is wrong as this is not possible

31.

Match each disease with its correct type of vaccine : (Re-AIPMT 2015)

- |     |                |       |                   |
|-----|----------------|-------|-------------------|
| (a) | tuberculosis   | (i)   | harmless virus    |
| (b) | whooping cough | (ii)  | inactivated toxin |
| (c) | diphtheria     | (iii) | killed bacteria   |
| (d) | polio          | (iv)  | harmless bacteria |

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

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

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

32.

The DNA molecule to which the gene of interest is integrated for cloning is called:

(Re-AIPMT-2015)

1. Vector
2. Template
3. Carrier
4. Transformer

33.

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

34.

Advantage of cleistogamy is : (NEET-2013)

1. More vigorous offspring
2. No dependence of pollinators
3. Vivipary
4. Higher genetic variability

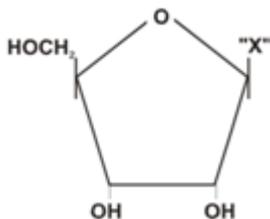
35.

Which one of the following statements is correct? (NEET-2013)

1. Sporogenous tissue is haploid
2. Endothecium produces the microspores
3. Tapetum nourishes the developing pollen
4. Hard outer layer of pollen is called intine

36.

Given below is the diagrammatic representation of one of the categories of small molecular weight organic compounds in the living tissues. Identify the category shown and the one blank component "X" in it. (AIPMT Pre. 2012)



Category

1. Cholesterol
2. Amino acid
3. Nucleotide
4. Nucleoside

Component

1. Guanin
2. NH<sub>2</sub>
3. Adenine
4. Uracil

37.

Which one of the following represents a palindromic sequence in DNA? (AIPMT Mains 2012)

1. 5' - GAATTC - 3'  
3' - CTTAAG - 5'
2. 5' - CCAATG - 3'  
3' - GAATCC - 5'
3. 5' - CATTAG - 3'  
3' - GATAAC - 5'
4. 5' - GATACC - 3'  
3' - CCTAAG - 5'

38.

Adaptive radiations refers to (AIPMT 2007)

1. Power of adaptation in an individual to a variety of environments.
2. Adaptations due to geographical isolation.
3. Evolution of different species from a common ancestor.
4. Migration of members of a species to different geographical areas.

39.

What is incorrect for Hemophilia?

1. In this disease, a single protein that is a part of the cascade of proteins involved in the clotting of blood is affected.
2. In an affected individual a simple cut will result in non-stop bleeding.
3. The heterozygous female (carrier) for haemophilia may transmit the disease to sons.
4. The possibility of a female becoming a haemophilic is extremely rare because mother of such a female has to be hemophilic and the father should be carrier.

40.

Sickle cell anaemia results from:

1. A chromosomal aberration
2. Non disjunction of autosome
3. A point mutation
4. Blood transfusion reaction

41.

Sickle cell anaemia results from:

1. A chromosomal aberration
2. Non disjunction of autosome
3. A point mutation
4. Blood transfusion reaction

42.

The family pedigree of Queen Victoria shows a number of haemophilic descendents as she was:

1. Affected by the disease
2. Carrier for the disease

3. Did not carry the allele for hemophilia  
4. Was not a queen
43.  
Haemophilia is inherited as a/an \_\_\_\_\_ condition.  
1. Autosomal recessive  
2. Autosomal dominant  
3. Sex linked recessive  
4. Sexlinked dominant
44.  
What facilitates the opening of the helix during elongation step of transcription?  
1. RNA polymerase  
2. Helicase  
3. Topoisomerase  
4. Gyrase
45.  
Transcription and translation can be coupled in:  
1. Bacteria  
2. Yeast  
3. Plants  
4. Animals
46.  
What is added to the 5' end of hnRNA in Eukaryotes?  
1. Poly A tail  
2. Methyl cytosine triphosphate  
3. Methyl guanosine triphosphate  
4. Poly U tail
47.  
The core RNA polymerase is capable of catalyzing which steps of transcription?  
1. Initiation only  
2. Elongation only  
3. Termination only  
4. All of these
48.  
Which of the following helps in termination of transcription?  
1. Sigma factor  
2. Translocase  
3. Ubiquitin  
4. Rho factor
49.  
In eukaryotes RNA polymerase II transcribes:  
1. mRNA  
2. rRNA  
3. tRNA  
4. hnRNA
50.  
In RNA splicing:  
1. Exons are removed and introns are joined together  
2. Introns are removed and exons are joined together  
3. Cistrons are removed and introns are joined together  
4. Introns are removed and Cistrons are joined together
51.  
Steroid abuse in males does not cause:  
1. Decrease in size of prostate  
2. Acne  
3. Breast enlargement  
4. Reduction of testicle size
52.  
A drug that depresses brain activity and produces feeling of calmness, relaxation and drowsiness, is :  
1. Morphine  
2. Valium  
3. Caffeine  
4. LSD
53.  
Consider the following statements regarding bird flu:  
I. Viruses causing bird flu belong to Influenza virus A strain  
II. The most pathogenic strain of this virus causing bird flu is H1N1  
III. Culling and vaccinating livestock is a short term strategy to prevent flu pandemic.  
IV. A human vaccine is available to control the spread of disease in human populations.  
Of the above statements, the correct are:  
1. I and III only  
2. II and IV only  
3. I, III and IV only  
4. I, II, III and IV
54.  
Antisense technology:  
1. selectively blocks expression of a gene.  
2. combines genetic material from different species.  
3. combines organelles and cells.  
4. alters or transfers cells
55.  
Lysozyme should be used when isolating DNA in a pure form from:  
1. A bacterial cell  
2. A fungal cell  
3. A plant cell  
4. An animal cell

56.

In recombinant DNA experiments, a vector:

1. carries DNA into a new cell
2. links together newly joined fragments of DN
3. makes millions of copies of a specific segment of DNA
4. separates fragments of DNA by their length and electrical charges

57.

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 wes 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)

58.

Which vector can clone only a small fragment of DNA? (AIPMT 2014)

1. Bacterial artificial chromosomes
2. Yeast artificial chromosomes
3. Plasmid
4. Cosmid

59.

Which of the following is not a major evolutionary trend seen in the evolution of horse?

1. Progressive increase in the number of toes
2. Increase in the complexity of the molar teeth
3. Lengthening of the limbs in general
4. Enlargement of the brain

60.

The connecting link between the fishes and amphibians are the:

1. Seymouria
2. Peripatus
3. Cartilaginous fishes
4. Coelocanths [lobe finned fishes]

61.

The change in allele frequencies that occurs over time within a population is called as:

1. microevolution, or adaptive evolution

2. macroevolution, or speciation
3. coevolution
4. phylogenetic evolution

62.

A major disadvantage of external fertilization is:

1. Lack of variation in the progeny
2. The number of progeny produced can only be one or few
3. The offspring are extremely vulnerable to predators threatening their survival up to adulthood
4. The progeny have a very short life span and a low reproductive potential

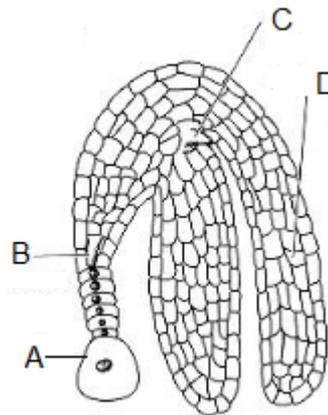
63.

When compared to external fertilization, in cases where internal fertilization takes place in sexually reproducing organisms:

- I. The progeny are afforded better protection
  - II. The number of male gametes are highly reduced while the number of female gametes is increased
  - III. Male gamete is non motile and the female gamete has to reach it
  - IV. In seed plants the non-motile male gametes are carried to female gamete by pollen tubes.
1. Only I and II are correct
  2. Only III and IV are correct
  3. Only I and IV are correct
  4. Only II and III are correct

64.

In the given diagram of a mature embryo of an angiosperm, the part that will develop into the future root is labeled as:



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

65.

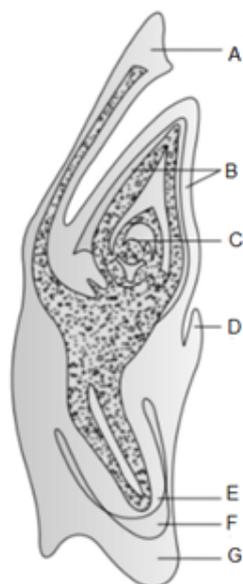
The stages of the development

of embryo in the angiosperm have been described according to their shapes. The correct chronology of development will be:

1. Globular → Heart → Torpedo
2. Heart → Globular → Torpedo
3. Heart → Torpedo → Globular
4. Globular → Torpedo → Heart

66.

The diagram shows L.S. of an embryo of grass. Identify A – G:



1. A: Scutellum; B: Coleoptile; C: Shoot apex; D: Epiblast; E: Radicle; F: Root cap; G: Coleorrhiza
2. A: Scutellum; B: Coleorrhiza; C: Shoot apex; D: Epiblast; E: Radicle; F: Root cap; G: Coleoptile
3. A: Perisperm; B: Coleoptile; C: Shoot apex; D: Epiblast; E: Radicle; F: Root cap; G: Coleorrhiza
4. A: Scutellum; B: Coleoptile; C: Root apex; D: Epiblast; E: Radicle; F: Shoot cap; G: Coleorrhiza

67.

If any protein encoding gene is expressed in a heterologous host, the protein formed is called:

1. Recombinant protein
2. Native protein
3. Pro-protein
4. Exotic protein

68.

Capacitation refers to change in the

- (1) Sperm before fertilisation
- (2) Ovum before fertilisation
- (3) Ovum after fertilisation
- (4) Sperm after fertilisation

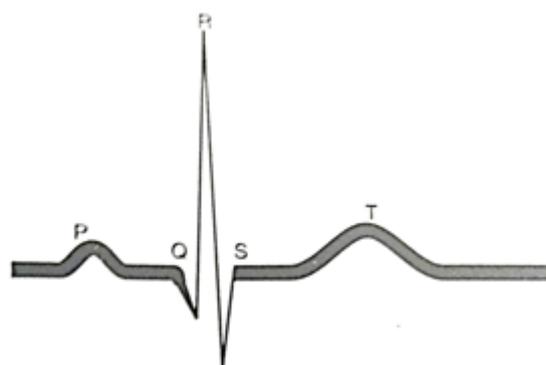
69.

Which one of the following hormones though synthesized elsewhere, is stored and released by the master gland?

- (1) Melanocyte stimulating hormone
- (2) Antidiuretic hormone
- (3) Luteinizing hormone
- (4) Prolactin

70.

Given below is the ECG of a normal human. Which one of its components is correctly interpreted below?



- (1) Peak P- Initiation of left atrial contraction only
- (2) Complex QRS-One complete pulse
- (3) Peak T-Initiation of total cardiac contraction
- (4) Peak P and Peak R together - systolic and diastolic blood pressures.

71.

Most abundant organic compound on earth is

1. Cellulose
2. Protein
3. Lipids
4. Steroids

72.

Assuming they all had the same number of carbon atoms, which of the following has the most C-H bonds?

1. an unsaturated fat
2. a polyunsaturated fat
3. a polysaccharide
4. a saturated fat

73.

An alpha helix is a:

1. primary structure of a protein
2. secondary structure of a protein
3. tertiary structure of a protein
4. quaternary structure of a protein

74.

Which of the following is not considered as a part of the endo-membranous system of a eukaryotic cell?

1. Lysosomes

2. Vacuoles  
3. Endoplasmic reticulum  
4. Peroxisomes
75.  
The transparent lens in the human eye is held in its place by  
1. Smooth muscles attached to the iris  
2. Ligaments attached to the iris.  
3. Ligaments attached to the ciliary body.  
4. Smooth muscles attached to the ciliary body.
76.  
Glenoid cavity articulate  
1. Clavicle with acromion  
2. Scapula with acromion  
3. Clavicle with scapula  
4. Humerus with scapula
77.  
All the following are common second messengers involved in hormonal actions except:  
1. Cyclic adenosine monophosphate  
2. Inositol phosphate  
3. Prostaglandins  
4. Calcium
78.  
The proteolytic enzymes of pancreatic juice act on all the following except:  
1. Proteins  
2. Proteoses  
3. Peptones  
4. Amino peptides
79.  
The absorbed substances into the body finally reach the tissues which utilise them for their activities. This process is called:  
1. Catabolism  
2. Anabolism  
3. Assimilation  
4. Ingestion
80.  
Carbohydrates in the chyme are hydrolysed into disaccharides by:  
1. Salivary amylase  
2. Pancreatic amylase  
3. Gastric amylase  
4. Intestinal amylase
81.  
Fats are broken down by lipases with the help of bile into:
1. Micelles  
2. Chylomicrons  
3. Di-andmonoglycerides  
4. Diacyl glycerol and inositol phosphate
82.  
Which hormone is mainly secreted by the developing follicles during the proliferative phase of the menstrual cycle?  
1. LH  
2. FSH  
3. Progesterone  
4. Estrogen
83.  
The peak levels of LH and FSH are observed on day \_\_\_\_\_ of a typical menstrual cycle?  
1. 6  
2. 14  
3. 22  
4. 28
84.  
LH surge:  
1. is a dramatic sudden increase in the levels of LH during the early part of menstrual cycle and is responsible for ovulation  
2. is a dramatic sudden decrease in the levels of LH during the early part of menstrual cycle and is responsible for ovulation  
3. is a dramatic sudden decrease in the levels of LH during the mid menstrual cycle and is responsible for ovulation  
4. is a dramatic sudden increase in the levels of LH during the mid menstrual cycle and is responsible for ovulation
85.  
Changes in the ovary and the uterus, during menstrual cycle, are induced by the changes in the levels of secretion of:  
1. Ovarian hormones  
2. Pituitary hormones  
3. Both  
4. None
- 86.

Fertilization occurs at:

1. Infundibulum of the fallopian tube
2. Ampullary – isthmic junction of the fallopian tube
3. Fundus of the uterus
4. Body of the uterus

87.

Which of the following STIs is not caused by a virus?

1. Genital herpes
2. Genital warts
3. HIV
4. Syphilis

88.

The cerebrospinal fluid, present in the ventricles, central canal and sub-arachnoidspace is produced by the capillaries of the:

1. lateral ventricle
2. arachnoid villi
3. choroid plexus
4. dural sinus

89.

Visual reflexes are coordinated by the part of the human brain known as the:

1. cerebellum
2. superior colliculus
3. inferior colliculus
4. cerebral peduncles

90.

The auditory tube [also called as the Eustachian tube] functions in equalizing pressure between the middle ear and:

1. throat
2. inner ear
3. outer ear
4. cochlea

**[Fill OMR Sheet](#)**