1.

The antigen-binding sites of an antibody molecule are formed from the molecule's variable regions. Why are these regions described as variable?

1. They can change their shapes to fit different antigens.
2. They change their shapes when they bind to an antigen.
3. Their specific shapes are unimportant.
4. The amino acid sequences of these regions vary widely among antibodies from different B cells.

2.

Pain and inflammation that occur when too much uric acid crystallises and deposits in the joints is known as:
1. gout
2. osteoarthritis
C) osteoporosis
D) rheumatoid arthritis

3.

Human chorionic gonadotropin (hCG):
1. stimulates the anterior pituitary to secrete gonadotropins
2. directly maintains the endometrium
3. triggers continued production of progesterone by the corpus luteum
4. stimulates development of the mammary glands

4.

Which of the following is true regarding sperm?
1. Fertilizin : For penetrating egg membrane
2. Hyaluronidase : For penetrating egg membrane
3. Acrosin : Dissolves corona radiata
4. Capacitation : Takes place in penis

5.

When secreted due to a fatty meal, the hormone cholecystokinin promotes all the following except:
1. contraction of gall bladder
2. increased production of hepatic bile
3. contraction of sphincter of Oddi
4. stimulation of pancreas

6.

The second largest constituent of plasma is:
1. Water
2. Proteins
3. Glucose
4. Hormones

7.

A person with which of the following blood groups can receive blood from a donor of only his/her own blood group?
1. O
2. A
3. B
4. AB

8.

Which of these could appear in the urine from dieting or the utilization of excess lipids?
1. urea
2. uric acid
3. glycine
4. Ketone

9.

What will happen to a well growing herbaceous plant in the forest if it is transplanted outside the forest in a park? (NCERT Exemplar)
1. It will grow normally
2. It will grow well because it is planted in the same locality
3. It may not survive because of change in its micro climate
4. It grows very well because the plant gets more sunlight

10.

Which one of the following statements pertaining to pollutant is correct? (AIIMS 2005)
1. DDT is nonbiodegradable pollutant
2. Excess fluoride in drinking water causes osteoporosis
3. Excess cadmium in drinking water may cause black foot disease
4. Methyl mercury in water may cause ‘’itaiitai’’ disease.

11.

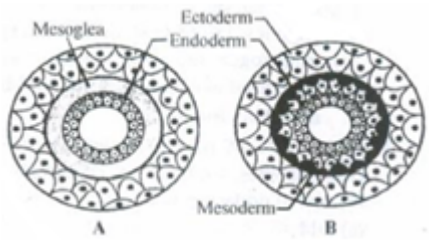
Chromatophores take part in :

(Re-AIPMT2015)

1. Growth
2. Movement
3. Respiration
4. Photosynthesis

12.

The diagram given below shows the germs layer. The animals having structures shown in the figures A and B are respectively called (AIIMS-2014)



1. Diploblastic, Triploblastic
2. Triploblastic, Diploblastic
3. Diploblastic, Diploblastic
4. Triploblastic, Triploblastic

13.

Stomata in grass leaf are (NEET-2018)
1. Dumb-bell shaped
2.Barrel shaped
3. Rectangular
4. Kidney shaped

14.

Pineapple (Ananas) fruit develops from (AIPMT-2006)
1. Cluster of flowers borne compactly on a common axis
2. Multilocular monocarpellary flower
3. Unilocular polycarpellary flower
4. Multipistillatesyncarpous flower

15.

Banana is (AIPMT-2006)
1. Cremocarp
2.Parthenocarpic berry
3. Drupe
4. Capsule

16.

The fruit is chambered, developed from inferior ovary and has seeds with succulent testa in (AIPMT-2008)
1. Guava
2. Pomegranate
3. Cucumber
4. Orange.

17.

One of the major components of cell wall of most fungi is :(NEET-I-2016)
1. Hemicelluloses

2. Chitin

3. Peptidoglycan

4. Cellulose

18.

Many pulses of daily use belong to one of the families below (tick the correct answer)
1. Solanaceae
2. Fabaceae
3. Liliaceae
4. Poceae

19.

A piece of wood having no vessels (trachea) must be belong to
1. Teak
2. Mango
3. Pine
4. Palm

20.

The living state can be best described as a:
1. non equilibrium steady state
2. non equilibrium non steady state
3. equilibrium non steady state
4. equilibrium steady state

21.

Onion root tip cell has 16 chromosomes in each cell. How many chromosomes will the cell respectively have at G1 phase, after S phase and after M phase?
1. 16, 32, 16
2. 16, 32, 8
3. 16, 16, 8
4. 16, 16, 16

22.

Destruction of both centrosomes with a laser beam in an animal cell:

1. will prevent both mitosis and cytokinesis

2. prevents cytokinesis even if mitosis has been completed normally

3. permits cytokinesis but the daughter cells fail to enter a new S phase

4. prevents mitosisbut permits cytokinesis

23.

Which of the following statements is not true for cancer cells in relation to mutations?
1. Mutations in proto-oncogenes accelerate the cell cycle.
2. Mutations destroy telomerase inhibitor
3. Mutations inactivate the cell control.
4. Mutations inhibit production of telomerase

24.

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

25.

Triploblastic organization, bilateral symmetry but lack of coelom will be seen in:
1. Planaria
2. Pheretima
3. Periplaneta
4. Pinctada

26.

As a group the most extensive metabolic diversity is shown by:
1. Bacteria
2. Protista
3. Fungi
4. Animals

27.

Halophiles are archaebacteria adapted to extreme:
1. Hot habitats
2. Saline habitats
3. Marshy habitats
4. Cold habitats

28.

Gracilaria and Gelidium that are source of Agar, belong to:
1.Chlorophyceae
2.Rhodophyceae
3.Phaeophyceae
4. Fungi

29.

A good producer of citric acid is (NEET 2013)
1. Aspergillus
2. Pseudomonas
3. Clostridium
4. Saccharomyces

30.

Breeding of crops with high levels of minerals, vitamins and proteins is called (AIPMT PRE 2010)
1. Micropropagation
2. Somatic hybridization
3. Biofortification
4. Biomagnifications

31.

Which one of the following conditions in humans is correctly matched with its chromosomal abnormality/linkage ? (AIPMT- 2008)
1. Erythroblastosisfetalis – X- linked
2. Down's syndrome – 44 autosomes + XO
3. Klinefelter'ssyndrome – 44 autosomes + XXY
4. Colour blindness – Y-linked

32.

Point mutation involves (AIPMT- 2009)
1. Deletion
2. Insertion
3. Change in single base pair
4. Duplication

33.

Which of the following viruses is not transferred through semen of an infected male? (Re-AIPMT 2015)
1. Human immunodeficiency virus
2. Chikungunya virus
3. Ebola virus
4. Hepatitis B virus

34.

Golden rice is a genetically modified crop plant where the incorporated gene is meant for biosynthesis of : (Re-AIPMT-2015)
1. Vitamin C
2. Omega 3
3. Vitamin A
4. Vitamin B

35.

The cutting of DNA at specific locations became possible with the discovery of:
(Re-AIPMT-2015)
1. Probes
2. Selectable markers
3. Ligases
4. Restriction enzymes

36.

Megasporangium is equivalent to : (NEET-2013)
1. Fruit
2. Nucellus
3. Ovule
4. Embryo sac

37.

Which one of the following is not a part of a transcription unit in DNA? (AIPMT Pre. 2012)
1. The inducer
2. A terminator
3. A promoter
4. The structural gene

38.

When two species of different genealogy come to resemble each other as a result of adaptation, the phenomenon is termed (AIPMT 2007)
1. Convergent evolution
2. Divergent evolution
3. Microevolution
4. Co-evolution

39.

Industrial melanism as observed in peppered moth proves that
1. Melanism is a pollution-generated features.
2. The true black melanic forms arise by a recurring random mutation.
3. The melanic form of the moth has no selective advantage over lighter from in industrial area
4. The lighter form of the moth has no selective advantage either in polluted industrial area or non-polluted area. (AIPMT 2007)

40.

Mendelian disorders are mainly determined by:
1. Alteration or mutation in the single gene.
2. Chromosomal gross structural changes.
3. Recombination between linked genes.
4. Jumping genes

41.

Which of the following is not an X – linked recessive disorder in humans?
1. Red green colour blindness
2. Haemophilia
3. Duchenne muscular dystrophy
4. Vitamin D resistant rickets

42.

Thalesemia is inherited as a/an _____ condition.
1. Autosomal recessive
2. Autosomal dominant
3. Sex linked recessive
4. Sexlinked dominant

43.

In a transcription unit, RNA polymerase binds to:
1. Ori
2. Promoter
3. Operator
4. Structural gene

44.

Which of the following RNAs plays both structural and catalytic roles?
1. mRNA
2. tRNA
3. rRNA
4. miRNA

45.

In eukaryotes the sequences that appear in mature or processed mRNA are called:
1. Introns
2. Cistrons
3. Exons
4. Mutons

46.

A segment of DNA coding for a polypeptide is most accurately defined as:
1. Operon
2. Gene
3. Recon
4. Cistron

47.

In most prokaryotes the transcription unit is:
1. Mono-cistronic
2. Poly-cistronic
3. Multi-cistronic
4. Uni-cistronic

48.

Opioids bind to specific receptors in CNS and:

1. GIT
2. CVS
3. Liver
4. Lungs

49.

Which of the following is not a hallucinogenic drug?

1. LSD

2. Mescaline

3. Morphine

4. Hashish

50.

A drug used to treat attention deficit disorder is :

1. Valium

2. Amphetamine

3. LSD

4. Psilocybin

51.

The plantlets produced during plant tissue culture are called as somaclones because:
1. They can be produced in a very short span of time
2. They are the result of somatic hybridization of two cells
3. The gametes develop parthenogenetically to produce genetically identical plantlets
4. They are genetically identical to the original plant from which they were grown

52.

Match each item in Column I with one in Column II and select the answer from the codes given below:

	COLUMN I		COULMN II
A	Bioprospecting	a	the process of discovery and commercialization of new products based on biological resources
B	Biopiracy	b	the exploitative patenting of already widely used natural resources, such as plant varieties, by commercial entities
C	Bioremediation	c	a process that uses microorganisms or their enzymes to treat polluted sites for regaining their original condition
D	Biofortification	d	the process by which the nutritional quality of food crops is improved through agronomic practices, conventional plant breeding, or modern biotechnology

Codes
A B C D
1. a b c d
2. a b d c
3. b a c d
4. b a d c

53.

pBR322 does not contain the site for:
1. Pvu I
2. BamH I
3. Sma I
4. EcoR I

54.

A method used only for transforming animal cells is:
1. Biolistics
2. Microinjection
3. Use of virus
4. Agrobacterium mediation

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.

Which one of the following is now being commercially produced by biotechnological procedures? (AIPMT MAIN 2010)
1. Morphine
2. Quinine
3. Insulin
4. Nicotine

57.

Which of the following are used in gene cloning? (AIPMT MAINS 2010)
1. Lomasomes
2. Mesosomes
3. Plasmids
4. Nucleotides

58.

The set of all genes, or genetic information, in a unit of evolution is called the :
1. genotype
2.polymorphism
3. multiple allelism
4. gene pool

59.

Identify the incorrect statement:
1. Neanderthals lived between 1,50,000 and 1,00,000 years back.
2. Modern Homo sapiens arose between 75000 and 10000 years ago.
3. Pre-historic cave art developed around 18000 years ago
4. Agriculture came around 10000 years ago

60.

Consider the two statements:

I. Organisms exhibiting external fertilisation show great synchrony between the sexes
II. Such organisms release a large number of gametes into the surrounding medium (water)
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 correct but II is incorrect
4. Both I and II are incorrect

61.

In a tender coconut:
1. The water and the surrounding white kernel are free nuclear endosperm
2. The water and the surrounding white kernel are cellular endosperm
3. The water is cellular endosperm and the surrounding white kernel is free nuclear endosperm
4. The water is free nuclear endosperm and the surrounding white kernel is cellular endosperm

62.

Endosperm may persist in the mature seed in:
1. Orchids
2. Pea
3. Castor
4. Groundnut

63.

What is the correct sequence of sperm formation?
(1) Spermatid, Spermatocyte, Spermatogonia, Spermatozoa
(2) Spermatogonia, Spermatocyte, Spermatozoa, Spermatid
(3) Spermatogonia, Spermatozoa, Spermatocyte, Spermatid
(4) Spermatogonia, Spermatocyte, Spermatid, Spermatozoa

64.

A chemical signal that has both endocrine and neural roles is
(1) Melatonin
(2) Calcitonin
(3) Epinephrine
(4) Cortisol

65.

The hemoglobin content per 100 mL of blood of a normal healthy human adult is
(1) 25-30 g
(2) 17-20 g
(3) 12-16 g
(4) 5-11 g

66.

The most abundant enzyme is :
1. Carbonic anhydrase
2. Nitrogenase
3. Catalase
4. Rubisco

67.

All of the following are true of protein denaturation except that it
1. is a shape change
2. is always irreversible
3. may be caused by a pH change
4. could result from a temperature change

68.

Which of the following is an essential amino acid?
1. Phenylalanine
2. Aspartic acid
3. Glutamic acid
4. Serine

69.

Most of the functions of a cell membrane can be attributed to its:
1. Phospholipids
2. Cholesterol
3. Proteins
4. Carbohydrates

70.

Algal cell walls are made up of:
1. Cellulose, Galactans, Mannans and Minerals
2. Cellulose, Hemicellulose, Pectins and Proteins
3. Cellulose, Pectins, Mannans and Minerals
4. Cellulose, Hemicellulose, Mannans and Pectins

71.

A gymnast is able to balance his body upside down even in the total darkness because of
1. Cochlea
2. Vestibular apparatus
3. Tectorial membrane
4. Organ of corti

72.

Select the correct matching of the characteristics and an example of a synovial joint in humans.

	Characteristics	Examples
1.	Fluid cartilage between two bones, limited movements	Knee joint

2.	Fluid filled between two joints, provide cushion	Skull bones
3.	Fluid filled synovial cavity between two bones	Joint between atlas and axis
4.	Lymph filled between two bones, limited movement	Gliding joint between carpals

73.

Match the items given in column I with those in column II and select the correct option below:

	Column I (Function)		Column II (Part of Excretory system)
(a)	Ultrafiltration	(i)	Henle's loop
(b)	Concentration or urine	(ii)	Ureter
(c)	Transport of urine	(iii)	Urinary bladder
(d)	Storage of urine	(iv)	Malpighian corpuscle
		(v)	Proximal convoluted tubule

Codes:
(a) (b) (c) (d)
1. (v) (iv) (i) (ii)
2. (iv) (i) (ii) (iii)
3. (iv) (v) (ii) (iii)
4. (v) (iv) (i) (iii)

74.

Match each item in COLUMN I [Hormone] with one in COLUMN II [Chemical class] and select your answer from the codes given:

	COLUMN I		**COLUMN II**
A.	ACTH	a.	Peptide
B.	Estradiol	b.	Steroid
C.	Thyroxine	c.	Amino-acid derived
D.	Epinephrine	d.	Iodothyronine

Codes
A B C D
1. a b c d
2. a b d c
3. b a d c
4. b a c d

75.

Succusentericus is composed of:
1. The secretions of the brush border cells of the mucosa alongwith thesecretions of the goblet cells
2. The secretions of the liver and the secretions of the Brunner's glands
3. The saliva mixed with the secretions of the Brunner's glands and the pancreatic mucoid secretions
4. The secretions of the large intestinal crypts and the mucus glands lining the alimenatary canal

76.

The intestinal enzymes require an alkaline pH to act. This is accomplished by the secretions of all the following except:
1. Goblet cells
2. Brunner's glands
3. Parietal cells
4. Pancreas

77.

Lipases can be activated by:
1. HCl
2. Secretions of Brunner's glands
3. Bile
4. Cholecystokinin

78.

Succusentericus contains all the following except:
1. disaccharidases
2. dipeptidases
3. lipases
4. nucleases

79.

Which of the following is a sub-mucosal gland?
1. Sublingual salivary gland
2. Pyloric glands
3. Brunner's glands
4. Submandibular salivary gland

80.

The first menstruation begins at puberty and is called as:

1. Menarche
2. Menopause
3. Thelarche
4. Pubarche

81.

The cessation of menstrual cycles is called as:

1. Menarche
2. Thelarche
3. Pubarche
4. Menopause

82.

During the follicular phase of the menstrual cycle which of the following occur?

I. The primary follicle grows and becomes fully mature Graafian follicle

II. The endometrium of the uterus regenerates through proliferation

1. Only I
2. Only II
3. I and II
4. None

83.

Consider the following statements:

I. Menstruation only occurs if the released ovum is not fertilized

II. Lack of menstruation always indicate pregnancy

Of the given statements the correct statements is/are:

1. I only
2. II only
3. I and II
4. None

84.

The menstrual cycle starts with the:

1. Follicular phase
2. Menstrual phase
3. Ovulatory phase
4. Secretory phase

85.

Which of the following techniques is banned by law in India for pre-natal sex determination?
1. Laparoscopy
2. Amniocentesis
3. Hysteroscopy
4. MRI and CT scan

86.

MTP is considered relatively safe up to ____ weeks of pregnancy.
1. 12
2. 16
3. 20
4. 24

87.

Myelin sheath around the axons in the PNS is secreted by:
1. oligodendrocytes
2. axons
3. Schwann cells
4. ependymal

88.

The resting axonal membrane is impermeable/nearly impermeable to:
I. Sodium ions
II. Potassium ions
III. Negatively charged proteins

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

89.

The part of the human brain widely regarded as ‘the gate-keeper to consciousness’ is the:
1. vasomotor center
2. corpora quadrigemina
3. diencephalon
4. reticular formation

90.

The sensory organ of the otolith organ is called as:
1. Macula
2. Ampulla
3. Crista
4. Cupula

Fill OMR Sheet