1.

Bipolar neurons are found in humans in :

1. Brain
2. Spinal cord
3. Embryonic stages
4. Olfactory epithelium

2.

The second largest component of plasma is:

1. glucose
2. water
3. protein
4. sodium

3.

A deficiency of plasma proteins would lead to all the following except:

1. reduced ability to transport iron
2. reduced ability to transport oxygen
3. reduced ability to clot
4. reduced ability to transport molecules such as lipids

4.

When the red blood cells get near the end of their life span they:

1. are less likely to become damaged
2. become more fragile
3. are less likely to rupture
4. are less likely to be phagocytized in the spleen or liver

5.

The hormone produced by the adrenal cortex, when stimulated by angiotensin II, that cuases increased sodium and water reabsorption in the distal convoluted tubules, is:

1. renin
2. aldosterone
3. antidiuretic hormone
4. cortisol

6.

The articulating bone surfaces at a synovial joint are not directly connected to each other with fibrous connective tissue or cartilage but their stability is due to the presence of:

1. fascia.
2. joint capsule.
3. tendon sheath.
4. aponeurosis.

7.

Identify the correct statement:

1. GnRH stimulates production of estrogen [in females] or testosterone [in males] directly
2. LH stimulates ovulation (female) or spermatogenesis (male)
3. FSH initiates and maintains development of accessory sex organs (both sexes)
4. estrogen stimulates oogenesis (female only)

8.

Identify the cells that are haploid: (1) spermatogonia (2) primary spermatocytes (3) secondary spermatocytes (4) spermatids (5) spermatozoa

1. 1, 2, and 3
2. 2, 3, 4, and 5
3. 3, 4, and 5
4. 4 and 5 only

9.

Which one of the following statements with regard to embryonic development in humans is correct?

1. Cleavage divisions bring about considerable increase in the mass of protoplasm.
2. In the second cleavage division, one of the two blastomeres usually divides a little sooner than the second.
3. With more cleavage divisions, the resultant blastomeres become larger and larger.
4. Cleavage division results in a hollow ball of cells called morula

10.

Consider the following statements regarding human alimentary canal:

I. Human dentition is thecodont, homodont and diphyodont

II. The tongue is s freely movable muscular organ attached to the roof of the oral cavity by the frenulum

III. The opening of the stomach into the duodenum is guarded by the cardiac sphincter

The incorrect statements include:

1. None
2. Only I
3. I and III only
4. I, II and III

11.

The peripheral chemoreceptors are:

1. more sensitive to a decrease in PCO_2 than to a decrease in PO_2
2. stimulated by hypocapnia
3. located in the medulla oblongata of the brain stem
4. more sensitive to a decrease in PO_2 than to a decrease in PCO_2

12.

Ecological niche is:(NCERT Exemplar)

1. The surface area of the ocean
2. An ecologically adapted zone
3. The physical position and functional role of a species within the community
4. Formed of all plants and animals living at

the bottom of a lake

13.

Great Barrier Reef along east coast of Australia is a (AIIMS 2004)
1. Population
2. Community
3. Biome
4. Ecosystem

14.

World Ozone Day is celebrated on (NEET-2018)
1. 5th June
2. 22nd April
3. 16th September
4. 21st April

15.

Taq polymerase is used in the polymerase chain reaction because:
1. It replicates DNA faster than other enzymes
2. It is the only enzyme that can replicate DNA invitro
3. It does not require an RNA primer to function
4. It is thermostable

16.

A major advantage of using YAC as a cloning vector over the plasmids is that:
1. it can replicate independently
2. it can be selected easily
3. it can accommodate larger inserts
4. it has multiple cloning sites

17.

Which one of the following statements is correct with reference to enzymes? **(NEET-2017)**

(1) Apoenzyme = Holoenzyme + Coenzyme

(2) Holoenzyme = Apoenzyme + Coenzyme

(3) Coenzyme = Apoenzyme + Holoenzyme

(4) Holoenzyme = Coenzyme + Co-factor

18.

Which of the following are not membrane-bound? (Re-AIPMT-2015)

1. Ribosomes
2. Lysosomes
3. Mesosomes
4. Vacuoles

19.

Which one of the following categories of animals, is correctly described with no single exception in it ? (AIPMT Mains - 2012)
1. All reptiles possess scales, have a three chambered heart and are cold blooded (poikilothermal)
2. All bony fishes have four pairs of gills and an operculum on each side.
3. All sponges are marine and have collared cells.
4. All mammals are viviparous and possess diaphragm for breathing

20.

The balloon-shaped structures called tyloses (NEET-II-2016)
1. are linked to the ascent of sap through xylem vessels
2. originate in the lumen of vessels
3. characterize the sapwood
4. are extensions of xylem parenchyma cells into vessels

21.

The standard petal of a papilionaceous corolla is also called [NEET- I - 2016]
1. Corona
2. Carina
3. Pappus
4. Vexillum

22.

The term 'polyadelphous' is related to [NEET- II - 2016]
1. calyx
2. gynoecium
3. androecium
4. corolla

23.

Which one is wrong statement ?(Re-AIPMT-2015)
1. Mucorhas biflagellate zoospores
2. Haploid endosperm is typical feature of gymnosperms
3. Brown algae have chlorophyll a and c and fucoxanthin
4. Archegonia are found in Bryophyta, Pteridophyta and Gymnosperms

24.

Select the mismatch – (NEET-2017)
1. Pinus - Dioecious
2. Cycas - Dioecuous
3. Salvinia - Heterosporous
4. Equisetum - Homosporous

25.

In an inflorescence where flowers are borne laterally in an acropetal succession, the position of the youngest floral bud shall be
1. Proximal
2. Distal

3. Intercalary
4. Any where

26.

Interfascicular cambium and cork cambium are formed due to
1. Cell division
2. Cell differentitation
3. Cell dedifferentiation
4. Redifferentiation

27.

The correct ascending order of percent composition of various components of a typical cell would be:
1. Protein – Carbohydrate – Lipids – Nucleic acids
2. Protein – Nucleic acids – Carbohydrate – Lipids
3. Carbohydrates – Protein – Nucleic acids– Lipids
4. Carbohydrates – Protein – Lipids – Nucleic acids

28.

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

29.

Identify the correct statement:
1. All pseudocoelomates are protostomes
2. All bilaterally symmetrical animals have a coelom
3. All animals have at least a tissue grade organization
4. All radially symmetrical animals are diploblastic

30.

The stem rust of wheat is caused by:
1. Pucciniagraminis
2. Ustilagotritici
3. Alternariasolani
4. Colletotrichumfalcatum

31.

Identify the incorrect statement regarding red algae:

1. Major pigments are chlorophyll a, c and phycocyanin
2. Stored food is floridean starch
3. Cellulosic cell wall with pectin and polysulfate esters
4. Absent flagellar insertions

32.

Measuring biochemical oxygen demand (BOD) is a method used for (AIPMT PRE 2012)
1. Measuring the activity of Saccharomyces cervisae in producing curd on a commercial scale.
2. Working out the efficiency of RBCs about their capacity to carry oxygen.
3. Estimating the amount of organic matter in sewage water.
4. Working out the efficiency of oil--driven automobile engines.

33.

Probiotics are (AIPMT 2007)
1. live microbial food supplement
2. safe antibiotics
3. cancer-inducing microbes
4. new kind of food allergens

34.

Lack of independent assortment between two genes A and B would be due to (AIPMT-2004)
1. Crossing over
2. Linkage
3. Repulsion
4. Recombination.

35.

At which stage of HIV infection does one usually show symptoms of AIDS?
(AIPMT 2014)
1. Within 15 days of sexual contact with an infected person
2. When the infected retro virus enters host cells
3. When HIV damages large number of helper T-Lymphocytes
4. When the viral DNA is produced by reverse transcriptase

36.

The first human hormone produced by recombinant DNA technology is (AIPMT - 2014)
1. Insulin
2. Estrogen
3. Thyroxin
4. Progesterone

37.

Which one of the following statements is wrong? (AIPMT main - 2012)
1. When pollen is shed at two-celled stage, double fertilization does not take place.

2. Vegetative cell is larger than generative cell.
3. Pollen grains in some plants remain viable for months.
4. Intine is made up of cellulose and pectin.

38.

Select the two correct statements out of the four (a-d) given below about lac operon. (AIPMT - 2010)
(a) Glucose or galactose may bind with the repressor and inactivate it
(b) In the absence of lactose the repressor binds with the operator region
(c) The z-gene codes for permease
(d) This was elucidated by Francois Jacob and jacque Monod
The correct statements are
1. (a) and (c)
2. (b) and (d)
3. (a) and (b)
4. (b) and (c)

39.

Which one of the following is not a living fossil? (AIPMT 2006)
1. King crab
2. Sphenodon
3. Archaeopteryx
4. Peripatus

40.

.Morgan coined the term _____ to describe this physical association of genes on a chromosome and the term _____ to describe the generation of non-parental gene combinations.
1. Recombination; Linkage
2. Linkage, Mutation
3. Transposition, Mutation
4. Linkage, Recombination

41.

When the two genes in a dihybrid cross are situated on the same chromosome:
1. The proportion of parental gene combinations was much higher than the non-parental type.
2. The proportion of parental gene combinations was much lesser than the non-parental type.
3. The proportion of parental gene combinations was equal to the non-parental type.
4. Only recombinants are formed.

42.

Genes tightly linked on the same chromosome show:
1. Very high recombination
2. Independent assortment
3. Very low recombination
4. 50 % recombination

43.

T. H. Morgan worked on the fruit fly, Drosophila melanogaster. Which of the following is not an advantage of this fly?
1. They could be grown on simple synthetic medium in the laboratory.
2. They complete their life cycle in about two years, and a single mating could produce a large number of progeny flies.
3. There was a clear differentiation of the sexes – the male and female flies are easily distinguishable.
4. It has many types of hereditary variations that can be seen with low power microscopes.

44.

When Morgan hybridised yellow-bodied, white-eyed females to brown-bodied, red-eyed males and intercrossed their F1 progeny, the F2 ratio deviated very significantly from the 9:3:3:1 ratio. This can be attributed to the fact that:
1. The genes are located on X and Y chromosomes.
2. Fruit fly has abnormal chromosomes
3. The genes are located on the X chromosome
4. The genes exhibit incomplete dominance

45.

The protein synthesizing machinery of a cell has evolved around:
1. DNA
2. RNA
3. Protein itself
4. Viroids

46.

DNA is structurally and chemically more stable than RNA because of all the following except:
1. It has thymine instead of uracil
2. 2' –OH is absent in DNA
3. It replicates itself based on complementary base pairing
4. It does not have any catalytic role

47.

Who proposed semi-conservative mode of replication for DNA?
1. Watson and Crick
2. Meselson and Stahl
3. Hershey and Chase
4. Beadle and Tatum

48.

What radioactive isotope was use by Meselson and Stahl to label DNA in their experiment?

1. ^{35}S
2. ^{15}N
3. ^{32}P
4. None

49.

Secondary lymphoid organs:

1. Are those where immature lymphocytes differentiate

2. Provide site of interaction between lymphocytes and antigens

3. Are formed after birth

4. Are bone marrow and MALT

50.

Which of the following is not a function of spleen?

1. It acts as a filter of the blood by trapping blood-borne microorganisms

2. It acts as a large reservoir of RBCs

3. It filters our old RBCs

4. It continues to form RBCs for a few years after birth

51.

What constitutes about 50 % of the lymphoid tissue in human body?

1. MALT
2. Spleen
3. Lymph nodes
4. Liver

52.

Division of functional megaspore can be described as:
1. Three free nuclear mitotic divisions
2. One meiotic and two mitotic divisions, all free nuclear
3. Three cytoplasmic mitotic divisions
4. One meiotic and two mitotic divisions, meiotic being cytoplasmic and mitotic being free nuclear.

53.

Transfer of pollens from the anther to the stigma of the same flower is called as:
1. Autogamy
2. Geitonogamy
3. Xenogamy
4. Cleistogamy

54.

Regarding out-breeding, the number of correct statements are:

I. Out-crossing is the practice of mating of animals within the same breed, but having no common ancestors on either side of their pedigree up to 4-6 generations.
II. Out-crossing is the best breeding method for animals that are below average in productivity in milk production, growth rate in beef cattle, etc.
III. A single outcross often helps to overcome inbreeding depression.
IV. In cross-breeding superior males of one breed are mated with superior females of another breed.
V. Cross-breeding allows the desirable qualities of two different breeds to be combined.

1. 2
2. 3
3. 4
4. 5

55.

Amongst the following the number of freshwater fishes is:
Catla, Rohu, Common carp, Hilsa, Sardines, Mackerel, Pomfrets.
1. 2
2. 3
3. 4
4. 5

56.

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

	COLUMN I		COLUMN II
A	First genetically modified crop	a	Antibiotic resistant tobacco plant
B	First genetically modified food	b	FlavrSavr
C	First genetically modified animal approved for food use	c	AquAdvantage Salmon
D	First genetically modified animal to be commercialized	d	GloFish

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

57.

Which one of the following is used as a vector for cloning genes into higher organisms? (AIPMT PRE 2010)
1. Retrovirus
2. Baculovirus
3. Salmonella typhimurium
4. Rhizopusnigricans

58.

Bryophytes evolved from:
1. Chlorophyte ancestors
2. Tracheophyte ancestors
3. Rhynia-type plants
4. Psilophytons

59.

The mammals evolved from:
1. Therapsids
2. Prosimians
3. Platyrrhinis
4. Sauropsids

60.

The cranial capacity of Homo erectus was around:
1. 450 cc
2. 700 cc
3. 900 cc
4. 1000 cc

61.

Consider the following statements:
I. Meiosis never occurs in organisms that are haploid
II. Gametes are haploid and the parent plant body from which they arise must be diploid
1. Only I is correct
2. Only II is correct
3. Both I and II are incorrect
4. Both I and II are correct

62.

Which of the following gastric cells indirectly help in erythropoiesis?
1. Goblet cells
2. Mucous cells
3. Chief cells
4. Parietal cells

63.

What happens during fertilisation in humans after many sperms reach close to the ovum?
(1) Only two sperms nearest the ovum penetrate zona pellucida.
(2) Secretion of acrosome helps one sperm enter cytoplasm of ovum through zona pellucida.
(3) All sperms except the one nearest to the ovum lose their tails.
(4) Cells of corona radiata trap all the sperm except one.

64.

Select the correct matching of a hormone, its source and function.

	Hormone	Source
(1)	Norepinephrine	Adrenal medulla
(2)	Glucagon	Beta-cells of Islets langerhans
(3)	Prolactin	Posterior pituitary
(4)	Vasopressin	Posterior pituitary

65.

Compared to blood our lymph has
(1) More RBCs and less WBCs
(2) No plasma
(3) Plasma without proteins
(4) More WBCs and no RBCs

66.

Select the answer with correct matching of the structure, its location and function.

	Structure	Location	Function
1.	Cerebellum	Midbrain	Controls respiration and gastric secretions
2.	Hypothalamus	Forebrain	Controls body temperature, urge for eating and drinking
3.	Blind spot	Near the where optic nerve	

leaves the eye	Rods and cones are present but inactive here		
4.	Eustachian tube	Anterior part of internal ear	Equalizes air pressure on either side of tympanic membrane

67.

Which of the following is an occupational respiratory disorder?
1. Botulism
2. Silicosis
3. Anthracis
4. Emphysema

68.

Three of the following pairs of the human skeletal parts are correctly matched with their respective inclusive skeletal category and one pair is not matched. Identify the non-matching pair.

	Pairs of skeletal parts	Category
1	Malleus and stapes	Ear ossicles
2	Sternum and ribs	Axial skeleton
3	Clavicle and glenoid cavity	Pelvic girdle
4	Humerus and ulna	Appendicular skeleton

69.

Removal of proximal convoluted tubule from the nephron will result in (AIPMT 2015)
1. More dilute urine
2. More concentrated urine
3. No change in quality and quantity of urine
4. No urine formation

70.

The functions of glucagon do not include:
1. Glycogenolysis
2. Gluconeogenesis
3. Increased cellular glucose uptake
4. Decreased cellular glucose utilization

71.

With respect to their actions on blood glucose levels, the functions of glucagon and insulin can be regarded as:
1. Antagonistic
2. Synergistic
3. Permissive
4. Competitive inhibition

72.

The functions of insulin do not include:
1. Glycogenesis
2. Gluconeogenesis
3. Increased cellular glucose uptake
4. Increased cellular glucose utilization

73.

Glycosuria and ketonuria are diagnostic of:
1. Graves' disease
2. Addison's disease
3. Conn's syndrome
4. Diabetes mellitus

74.

The re-establishment of the resting membrane potential after depolarization is primarily due to:
1. Sodium potassium pump
2. Influx of sodium
3. Efflux of potassium
4. Efflux of sodium

75.

Degluttition means:
1. Ingestion of solid food
2. Swallowing
3. Vomiting
4. Hiccups

76.

What controls the passage of food into the stomach?
1. The cardiac sphincter
2. The pyloric sphincter
3. The sphincter of Boyden
4. The sphincter of Oddi

77.

About what percentage of starch is hydrolysed by

salivary amylase into maltose?
1. 30 – 40
2. 50 – 60
3. 60 – 70
4. 90 – 100

78.

The resting axonal membrane is:
1. impermeable to the flux of both sodium and potassium ions
2. freely permeable to the flux of both sodium and potassium ions
3. relatively more permeable to the flux of potassium and nearly impermeable to the flux of sodium ions
4. relatively more permeable to the flux of potassium and nearly impermeable to the flux of sodium ions

79.

Each time the sodium-potassium pump works, it transports:
1. three sodium ions to the outside and brings two potassium ions to the inside
2. two sodium ions to the outside and brings three potassium ions to the inside
3. three potassium ions to the outside and brings two sodium ions to the inside
4. two potassium ions to the outside and brings two potassium ions to the inside

80.

Lysozyme and thiocynate ions present in saliva:
1. hydrolyse amylose but not amylopectin
2. hydrolyse amylopectin but not amylase
3. help bacterial flora in oral cavity to thrive
4. are very important for oral hygiene

81.

For normal fertility what percent of the sperm in ejaculate must exhibit vigorous motility?

1. 20

2. 30

3. 40

4. 60

82.

The functions of male sex accessory ducts and glands are maintained by:

1. Hypothalamic releasing hormone

2. Pituitary gonadotropins

3. Adrenal cortex steroids

4. Testicular androgens

83.

What happens to the majority of the follicles during the phase from birth to puberty?

1. They get invested by multiple layers of granulosa cells

2. They enlarge in size and then get dormant

3. They undergo atresia or degeneration

4. They cluster together at one end of the ovary

84.

Oogenesis is initiated:

1. During the fetal life

2. Just before birth

3. Just after birth

4. At puberty

85.

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

86.

Oral contraceptive pills do not:
1. Inhibit ovulation
2. Prevent implantation
3. Alter cervical mucus
4. Kill sperms

87.

Emergency contraceptive methods must be employed within:
1. 72 hours of ovulation
2. 72 hours of onset of menstrual flow
3. 72 hours of unprotected coitus
4. 72 hours of cessation of menstrual flow

88.

Which of the following is not true about “saheli”?
1. It is an oral contraceptive pill
2. The basic preparation is steroidal
3. It is a ‘once in a week’ pill
4. It has very few side effects and has high contraceptive value

89.

Which of the following can be used by females as injectable or implant contraceptives?
I. Progesterone alone
II. Estrogen alone
III. A combination of progesterone and estrogen

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

90.

The change in electrical potential that occurs between the inside and outside of a nerve or muscle fiber when it is stimulated, serving to transmit nerve signals is called as:
1. Action potential
2. Threshold potential
3. Reversal potential
4. Excitatory post synaptic potential

Fill OMR Sheet