Class/Section: XI/ **Subject: Biology**
Chapters: 1 to 15

Q. Encircle the correct option i.e A/B/C/D .All parts carry one mark:

1)Cyclosis is the movement of the cytoplasm is controlled by;

A.Microtubules B.Intermediate filaments C.Microfilaments D.Myosin-filaments

2)A sequence of three nucleotides called anticodon is a part of:

A.tRNA B.cDNA C. rRNA D. mRNA

3) *B* 1-4 Glycosidic linkage is found in:

A.Sucrose B. Lactose C.Maltose D. Amylose

$$A\text{-}B+C \; -A+C-B$$

4)The above reaction can be catalyzed by:

A.Oxidoreductases B.Transferases
C.Lyases D.Hydrolayses

5)The property of water which helps to maintains the integrity of lipid bilayer is:

A.High specific heat capacity B.Bonding C.Tension D.Exclusion

6)The organelle which will be more active in liver after intake of alcohol.

A.Lysosomes B.Peroxisome C.Glyoxisome D.Polysome

7)In bacterial cell the absorption of DNA from medium to cell result in :

A . Transduction B.Conjugation
C.Translation D.Transformation

8) The arrangement of flagella in bacterial cell shown in diagram is·

A.Monotrichous B.Lophotrichous C.Peritrichous D.Monopolar bitrichous

9) The physical method used to control Bacteria is:

:A.Antiseptics B . Disinfectants C.Pasteurization DAntibiotics

10)Secondary xylem is produced by the activity of:

A.Apical meristem B.Cork Cambium C.Vascular cambium D.Intercalary meristem

(11) The pattern of sex determination found in Grass hopper is:

A.WZ-ZZ Type **B**.XY-XX **C**.XO-XX **D**.Diploid ,Haploid Type

12) In human female secondary oocyte is released from the ovary at the stage of:

A.Metaphase – I

B.Anaphase-II

C.Metaphase - II

D.Anaphase – I

13)A couple has four children having all types of blood groups. Select the genotype of the couple.

A.IAixii B..*JAixJBi*

C.*!BIB xii* D.*JAJBxii*

14)If a carrier female for colour blindness is married **to** a normal male. What is the probability of her daughters to be colour blind?

A.Zero B.25%

C.50% D.70%

15) If a heterozygous yellow seeded plant is crossed with a homozygous green seeded plant, what is the probability of progeny having green seeds?

A.25% B.50%

C.100% D.Zero

16) If the recombination frequency between A & B is 11%, A & C is 19%, B & C is 30% what would be the arrangement of genes?

A.ACB B.BCA

C.BAC D.ABC

17) Considering R for red and r for white eye colour, if a heterozygous female Drosophila is crossed with a white eye male, what would be the percentage of white eye colour in male flies in the next generation?

A.25% B.100% C.50% D.Zero

18)A man has haemophilia.Which statement correctly describes the inheritance of this gene?

A.He inherited recessive allele from his mother

B.He inherited dominant allele from his father

C.He can pass the recessive allele to a son

D.He can pass the dominant allele to a daughter

19) What are phenotypes of parents of a colour blind son and non-carrier daughter with normal colour vision?

	Father	Mother
A.	Carrier	Normal
B.	Colour blind	Carrier
C.	Normal	Carrier
D.	Normal	Colour blind

20)Amino acids contains group:
A.hydroxy group **B**.Carboxy group **C.**amino group **D.**Both b & c

21)Lactose is a disaccharide formed by the formation of a glycosidic bond between glucose and
A.Gucose **B**.Sucrose **C**.Galactose **D**.Fructose

22) Lipid molecules have the capacity to store double amount of energy as compared to same amount of carbohydrate because of high number of :
A.C-C bonds **B**.C-H bonds **C**.C-N bonds **D.**C-O bonds

23) A polar molecule is ---------- in water :
A.soluble **B**.insoluble **C.**reactive **D.**innert

24) Wood consists mainly of:
A. Bark **B**. Secondary xylem
C. Cork **D**. Secondary phloem

25) Identify the tissue on the basis of following characteristics

i.	Extracellular deposition at corners
ii.	Mechanical tissue
iii.	Provides support to herbaceous parts of plants
iv.	No role in secondary growth
v.	Living cells

A. Sclerenchyma **B.** Collenchyma **C**. Xylem **D**. Epidermis

26) Ascent of sap depends on four factors according to TACT theory. Choose the pair of factors that depend on hydrogen bonding of water?
A. Cohesion and Adhesion **B**. Transpiration and Adhesion
C. Cohesion and Tension **D**. Transpiration and Tension

27)The sugar moves through phloem mostly in the form of ;
A. glucose **B.**Maltose **C.** Sucrose **D.** Lactose

(28) In contrast to kingdom Animalia and Plantae, the organisms of kingdom Fungi have:
A. A cell wall **B**. Centrioles in cells **C**. Heterotrophic mode of nutrition **D**. Nuclear mitosis

(29) Imperfect fungi called imperfect fungi because
A.They have no Zygospores **B**.They cause diseases
C.They form conidiospores **D**.Sexual reproduction has not been observed

(30) Colour Blindness is a disorder of ----------.
A.X-Linked Dominant **B**.Y-Linked **C**. X-Linked recessive **D**.Both a & b

(31) One of the blood group would not be possible for children of type AB mother and a type AB father:
A.Blood group O **B**. Blood group B **C**. Blood group AB **D**. Blood group A

(32) Recalling your knowledge of epistasis based on the yellow coat colour in Labrador retriever; find out the genotype.
A.BBEe **B**.BbEE **C**.BBee **D**.bbEe

(33) The cervix is the opening of:

A.Fallopian tube B.Uterus C. Ovary D.Vagina

(34) Pregnancy is maintained by:

A. Luteotrophic hormone(LTH) B. Corticosteroids C. Progesterone D. FSH & LH

(35) FSH is a hormone that is produced by:

A. Pituitary gland B.Adrenal gland C.Ovary D.Testes

(36) Sperms are stored in :

A.Epididymis B.Urethra C.Prostate gland D.Vasdeferens

(37)Which one of these organelles is involved in the autophagy of a cell?

A. Mitochondria B. Vacuole C. Lysosomes D.Plastids

(38)Identify the respiratory fuel from the following:

A. $C_3H_6O_3$ B. $C_5H_{10}O_5$ C. $C_6H_{12}O_6$ D. $C_7H_{14}O_7$

(39)Which one of the following constitiutes the raw material for coenzyme?

A. Proteins B. Carbohydrates C. Vitamins D.Metabolic ions

(40)Plants are able to detect photoperiod changes by:

A. Settling of Amyloplasts B. Alternation of the two forms of Phytochrome

C. Direction of light source D. Movement of potassium ions

(41)In which type of solution, the phenomenon of endosmosis occurs and cell becomes turgid?

A. Isotonic only B. hypotonic only C. hypertonic D.hypotonic and isotonic

(42)Identify the type of movement shown by fungal mycelium, in which hyphae show more growth towards the nutrients

A. Phototropism B. Thigmotropism C. Neurotropism D.Chemotropism

(43)The property of water that helps animals in regulating their internal body temperature is:

A. Cohesion and adhesion B. High heat of vaporization

C. High specific heat capacity D.I onization

(44)In male reproductive system FSH stimulate:

A. Leydig cells B. Spermatogonia C. Spermatozoa D. Sertoli cells

(45)Blocking of enzyme action by blocking its active site is called as:

A. Feedback inhibition B. Allosteric inhibition C. Competitive Inhibition D. .Non-competitive inhibition

(46)Maltose is a disaccharide formed by the formation of a glycosidic bond between glucose and

A. Glucose B. Sucrose C. Fructose D.Galactose

(47)Conjugation is facilitated by;

A. Capsule B.Pili C. Flagella D.Both b & c

(48)Embryo implants in the---------- of the uterus;

A.Perimetrium B. Myometrium C. Endometrium D.Cervix

(49) Prostate gland's function in male reproductive system provide secretion:

A. Nutrients B.Neutralize the acidity C.Lubricate the ducts D. both A & B

(50) Sertoli cells are found in :

A.seminiferous tubules

B. Seminal Vesicle

C.Epididymis

D.Between interstitial cells

(51)$CO2+2H2S \longrightarrow (CH2O)n+H2O+2S$ Indicate the type of bacteria in which the above reaction takes place?

A. Chemoautotrophic B. Parasitic C. Saprotrophic D. Photoautotrophic

(52) What is the primary pigment responsible for photosynthesis in cyanobacteria?

A.Chlorophyll B.Carotenoids C.Phycobilins D.Xanthophylls

(53) How does a zygote differ from ovum:

A. A zygote has diploid number oof chromosome

B. A zygote is similar

C.A zygote contains of more than one cell

D.A zygote is much larger

(53)Combination of apoenzyme and coenzyme produces:

A.Prosthetic group B.Isoenzyme C.Holoenzyme D.Enzyme

(54)Identify heteropolysaccharide from the following:

A. Chitin B. Glycogen

C. Pectin D. Cellulose

(55)Such type of algae which are bounded by protective cellulose plates impregnated with silica:

A.Dinoflagellates **B**.Diatoms **C.**Euglenoids **D**.Brown Algae

(56)The filaments of some fungi are coenocytic, which means they:

A. Are not differentiated into organs **B**. Are composed of distinct cells

C. Do not have cross walls **D**. Have mushroom like appearance

(57) Identify the mismatch in the following pairs:

A.Mitochondria –Cellular respiration

B.Lysosome-Intracellular digestion

C.Glyoxisome-deamination

D.Microfilament-Cyclosis

(58) In the leaves of green plants ,peroxisomes are the sites of:

A.Respiration

B.Photosynthesis

C.Photropism

D.Photorespiration

(59) A certain poison disrupts the cytoskeleton of cell. Choose one of the following function that would be affected most probably by the poison?

A. Digestion within lysosomes **B.** Protein synthesis **C.** Cell division **D.** Cellular respiration

(60) The organelle which is absent in animal cell:

A.Lysosomes **B**.Centrioles **C.**Plastids **D.**Nucleus

61)Chromosome having centromere in the centre of **it is** called:

A.Acrocentric **B.**Metacentric

C.Sub-metacentric **D.**Telocentric

62)Which of the following codons reads amino acid methionine?

A.AAG

B.AUG

C.AGA

D.AGU

63)Which of the following syndrome is **NOT** related to the abnormality of sex-chromosomes?

A.Down's B. Klinefelter's C.Turner's D. Jacob's

64) Select a start codon for the synthesis of a polypeptide chain:

A.AGA B.AUG

C.AAU D.AAG

65) The ability to remove wrong nucleotides if it is added mistakenly is called:

A. Degeneracy B. Splicing C. Proofreading D. Primosome

66) Which one of the following is the palindromic sequence?

A. GATC B. GGTT C. CGAT D. TTCC

67) Select the example of commensalism from the following:**2018**

A.Algae and fungi

B.Bacteria and Pea plant

C.Shark and remora fish

D.Bee and flower

68)Which one of the following is a renewable resource:**2018**

A.Coal B.Oil

C.Air D.Natural gas

69)Moderate temperature of a temperate deciduous forest ranges between:**2018**

A.4°C-20°C B.4°C-25°C

C.4°C-30°C D. 4°C-35°C

70) In the following there is **NO** difference between:**2019**

A.Primary consumers & herbivores

B.Secondary consumer & omnivores

C. Primary carnivores & trophic level-II

D. Trophic level I & herbivores

71)A tree-less region is called**:2019**

A.Alpine B.Tundra

C. Taiga D.Boreal

72)All are the consequences of deforestation **EXCEPT:2019**

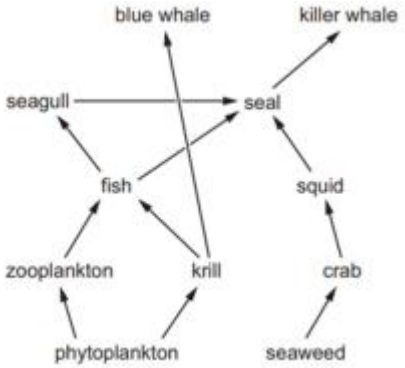
A.Silting of lakes

B.Heavy floods

C.Interception of heavy rainfall

D.Soil erosion

73) The diagram shows an aquatic food web;**2022**



Which one of the following statement is correct?

A. There are two producers and three herbivores

B. There are two primary consumers and two secondary consumers

C. There are three producers and two primary consumers.

D. There are two herbivores and two tertiary consumers.

(74) According to the semi-conservative model of DNA replication, two DNA molecules result:

A. Each strand with one new strand and one original strand **B**. Each with two new strands

C. One with two new strands and one with both original strands **D.** Each with two original strands

(75) All chromosomes other tha sex chromosomes are called:

A.Polysome **B**.Mesosome **C**.Autosomes **D**.Acrosome

(76) Shorter than average height, infertility, webbed neck, low hair line at the back of neck, abnormal bone development, larger than normal number of moles on skin and edema indicates:

A. Down syndrome **B**. Klinefelter syndrome **C.** Turner syndrome **D**. Duchenne muscular dystrophy

(77) According to the semi-conservative model of DNA replication, two DNA molecules result:

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(78) A biochemist isolated and purified molecules needed for DNA replication. When he added some DNA, replication occurred, but the DNA molecules formed were defective. Each consisted of normal DNA strand paired with numerous segments of DNA, a few hundred nucleotides long. What had the scientist probably left out of the mixture?

A. DNA polymerase **B**. Ligase **C**. Nucleotides **D**. Primers

(79) Virologists have discovered how to put together a bacteriophage with protein coat of phage T2 and DNA of phage T4. If this composite phage were allowed to infect a bacterium, the phages produced in the host cell would have:

A. The protein of T2 and DNA of T4 **B**. The protein of T4 and DNA of T2

C. The protein and DNA of T2 **D**. The protein and DNA of T4

(80) An mRNA codon for the amino acid alanine is GCC. How many alanine molecules are present in the polypeptide, containing 8 amino acids coded for by the following DNA template**? TCGGCCTACCGGGCCCATGCCAAT**

A. Zero **B.** One **C**. Two **D**. Three

(81) part of a polypeptide chain: 1 — 2 — 3 — 4 — 2 — 5 — 3 and mRNA codons which corresponds to these amino acids are: 1=UGU, 2=GAU, 3=CAC, 4=UAG, 5=AAG. Which one of the following DNA base sequences could provide the code for the give section of polypeptide?

A. ACACUAGUGAUGCUAUUCGU **B.** ACACTAGTGATGCTAAACGTG

C. ACACTAGTGATCCTATTCGTG **D**. CACATCUTUCTUATCTTAUTU

(82) Endosymbiont hypothesis explains origin of :

A.Eukaryotes **B.**Prokaryotes **C**.Armadillo **D.**Fish

(83) Human appendix ,coccyx and nictitating membrane of the eye are:

A.Vestigial organs **B**.Homologous organs **C.**Embryonic organs **D**.Analogous organs

84) In C3 Plants the first product of photosynthesis during dark reaction is :

A) PGA B) G3P C) RuBP D) oxalate

85)ATP synthesis during light reactions is:

A) Oxidative B) Substrate phosphorylation C) Photolysis D) Photophosphorylation

86) Carbon dioxide labeled with 14C has been used to identify the intermediate compound in the calvin cycle, the light independent stage in the photosynthesis .Which compound would be the forst to contain the 14C ?

A) glucose B) PGA C) RuBP D) starch

87)Retroviruses have a special enzyme that

A.disintegrate host DNA

B.polymerises host DNA

C.transcribe viral RNA to DNA
D.translate host DNA

89)Which type of illness is caused by a retrovirus?
A.typhoid **B**.malaria **C**.AIDS **D**.sleeping sickness

90)Sago grains are obtained from? **A**.Cycus **B.**Pinus **C**.Moss **D**.Fern

91)They are highly evolved plants on the Earth:
A.bryophytes **B.**Pterodophytes **C**.gymnosperms **D**.Angiosperms

92) Glycolysis is a process that:
A. Produces ATP and NADH **B**. Produces ATP only
C. Is not a net producer of energy rich molecules **D**. Consumes as much ATPs as is produced

(93) The enzyme that fixes atmospheric CO2 in C4 plants is;
A. PEP carboxylase **B.**Rubisco
C. RuBP carboxylase **D.**Hydrogenase

(94) Photorespiration is a problem for plant growth because it:
A. Consumes excess CO2 during the day
B. Consumes excess CO2 during the day and night
C. Effectively undoes the work of photosynthesis by releasing CO2
D. Provides additional means of releasing energy from fuel molecules

(95) Chlorophyll a differs from chlorophyll b in having a :
A. –CHO group **B**. –COOH group **C**. –CH3 group **D**. –NH2 group

(96) In eukaryotic cells krebs cycle occurs in :
A. cytosol **B.** nucleus **C**. chloroplast **D**. Mitochondria

(97) The number of carbon atoms in RuBP which accept CO2 in C3 Plants
A 2 **B**. 3 **C**. 5 **D**. 6

98) Which of the following is not subphylum of chordata?
A.Hemichordata B.Urochordata C.cephalochordata D.Vertebrata

99) Sponges belong to the Phylum :
A.aschelminthes **B**.arthropoda **C**.Porifera **D**.mollusca

100)Which of the following has a gastrovascular cavity ?
A.sponges **B**.earthworms **C**.roundworms **D**.flatworms

101) Only an animal species with diaphragm can be expected to have:
A. Lungs **B.** Hair **C.** Feathers **D.** Moist skin

102) All animals are :
A.autotrophs **B.**unicellular & multicellular **C.** Unicellular **D.**motile

103)Which of the following is not a parasite:
A.annelida **B.**nematoda **C.** platyhelminthes **D.**porifera

104) In respiratory chain, the electrons are finally taken up by	Water	Oxygen	Cytochrome a_3	Cytochrome b
105) In Calvin cycle, the CO2 acceptor is	NADPH	G3P	3-PGA	RuBP
106) In light independent reaction of photosynthesis, the reduction phase is possible due to	NADPH	ATP	CO2	RuBisCO
107) The molecules required to regenerate the RuBP in Calvin cycle, are	ATP	3-PGA	PGAL	NADPH
108) Complete the reaction: $C_6H_{12}O_6+2NAD^+ \Rightarrow + 2NADH+2H^+$	$2C_3 H_4 O_3$	$C_3 H_6 O_3$	$C_2 H_5 OH$	CO_2
109) Which of the processes is responsible for the release of energy from the carbohydrates?	Calvin cycle	Photolysis	Glycolysis	Fermentation
110) The ideal time of the day when O_2 released by photosynthesis can be utilized by respiration	Day and night	Dawn and dusk	Noon and evening	Day and evening
111)GTP is used to form ATP during	Krebs cycle	Glycolysis	Calvin cycle	Light reaction
112) Viruses are considered nonliving because:	They do not mutate	They do not locomote	They cannot reproduce independentl y	Have nucleic acid
113) Which of these are found in all viruses?	Envelope, nucleic acid and capsid	DNA, RNA and proteins	Proteins and nucleic acid	Protein, carbohydrate and lipids
114) Which step in the lytic cycle follows attachment of virus and release of DNA into the cell?	Production of lysosome	Disintegratio n of host DNA	Assemblage	DNA replication
115) Which part of an animal virus is not reproduced in multiple copies?	Envelope	Protein	Capsid	Ribosome
116)RNA retroviruses have a special enzyme that	Disintegrates host DNA	Polymerases host DNA	Transcribes viral RNA to DNA	Translates host DNA
117) Which of the following illness is caused by retrovirus	Typhoid	Malaria	AIDS	Sleeping sickness
118) The HIV primarily infects	Plasma cells	Helper T cells	All White blood cells	Red blood cells
119) Poliomyelitis affects	Motor neuron	Sensory neuron	Brain	Muscles
120)HIV attaches to	CD4 protein	Nucleoprotei n	Lipoprotein	CD8 protein
121)AIDS was firstly reported in which types of individuals	Heterosexual s	Homosexuals	Belonging to specific blood group	With previous history of diseases