- The process of gastn lation in amphibian embryos starts from the dorsal lip of blastopore by
  - (a) epiboly
    - (c) evagination
    - (d) detamination
- The central zong\_overlying the subgerminal cavity of developing egg of a chick is called

(1) area pellucida

- (b) area opaca
- (c) epiblast
- (d) hypoblast
- 3. Which one of the following is formed by mesoderm of gastrula?
  - (a) Central nervous system
  - (b) Epidermis
  - (c) Circulatory system
    - (d) Liver and pancreas
- Which one of the following even is <u>not correct</u> about retailor hosis of ascidian tadpoles
  - (a) Dorsal tubular nerve cord is transforted into a trunk gangian
  - (b) ng nuscular tail is resorbed
  - s and gill slits disappear

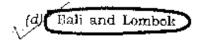
Notechord disappears along with the tail

- 5. Yolk sac placenta is found in
  - (a) pig
  - (b) sheep
  - (c) primate

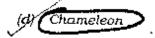
(d) didelphys

- 6. The placenta produces which of the following hormones?
  - (a) Estradiol, relaxin, inhibi
  - (b) Progesterone, i thibin, clasterin
  - (c) Estradiol, progeste one, relaxin
    - (d) Relaxi . hh bin, androgen
- 7. Species which are closely related, norphologically similar, reproductively isolated, live in sympatric populations are designated as
  - (a) clines
  - (b) ccads
  - (c) demes
  - (d) sibling
- 8. Industrial melanism in certain moths is an example of
  - (a) warning coloration
  - (b) mullerian mimicry
  - (c) sexual selection
  - (d) directional natural selection

- Down the South, Wallace's line passes between the islands
  - (a) Sumatra and Java
  - (b) Borneo and Celebes
  - (c) Timor and New Guinea



- Zygodactylous condition is the characteristic of
  - (a) Phrynosoma
  - (b) Remidactylus
  - (c) Calotes



Consider the following statements:

Hardy-Weinberg equilibrium is maintained in a population whare

- 1. random mating takes place
- 2. there is no natural selection
- 3. a population manigrant or loose alleles

Which of tatements given above is/ore orbot?

- (a) 1 or
- th 1 and 2 only
- 2 and 3 only
- (d) 1, 2 and 3

- 12. Which of the following is an Indian vector for Leishmania donovani?
  - (a) Phlebotomus perniciosus
  - (b) Phlebotomus chinensis



- (d) Phlebotomus orientulis
- 13. The drug 'Cantharid' is the duced from the dried bod es of
  - (a) vine gird beetles
  - (b) blis etl s
  - (c) tight brettles
  - (d) ground beetles
- 14. Which one of the following is a potamodromous fish?
  - (a) Eql
  - (b) Hilsa
  - (C) Rohu
    - (d) Mackerel.
- (15. Jaw teeth of sharks are

(a) modified placoid scales

- (b) modified cosmoid scales
- (e) non-placoid scales
- (d) ganoid scales

- 16. Which one of the following helps to breed fish in artificial conditions?
  - (a) MS 222
  - (b) MSH



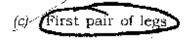
- (d) DDVP
- 17. Even though limbs and girdlet, and generally not found in snakes, vestiges of the pelvic girdle and hind limbs persist in
  - (a) king cobra
  - (b) sea snake



- (d) viper
- 18. Which of the following spakes loreal pits that help th in tracking down we animals even in pitch darkness?
  - Band

  - en python
  - Rattlesnake

- 19. la centipedes, poisonous claws are the modification of which structure?
  - (a) Antenna
  - (b) Mandible



- (d) Last pair of legs
- 20. Match Lister with Li-·II and select the correct answer us the code given below ist:

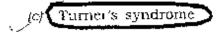
ListeIList-II

- 1. Muller's organ A. Freshy
- Flame cells
  - 3 Green gland
- Sheep liver 4. Urate cells fluke

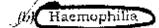
Code:

- (a) A В C D 2 1 4 3
- (b) A В  $\mathbf{C}$  $\mathbf{D}$ 4 1 3
- ₿ Ċ
- С В D٠ 4 I 2

- 21. Webbed neck and sexual infantilism are the characteristic features of
  - (a) Mongolism
  - (b) Klinefelter's syndrome



- (d) Trisomy 13-15
- 22. Which of the following is the genetic disorder of humans which occurs due to criss-cross inheritance of recessive genes?
  - (a) Huntington's chorea



- (c) Permicious anaemia
- (d) Thalassemia
- 23. Consider the following statements:
  - Annual changes in tenperature in aquatic environments are more marked a temperate freshwater climate than in other clima.
  - 2. Temperature is the major factor in the distribution of ocean currents and air carrents.

Which of the statements given above is recorrect?

- W O
- 1 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

24. In a shallow lentic habitat, which zone is most productive?

(ti) Littoral

- (b) Profundal
- (c) Pelagic
- (d) Limnetic
- 25. In which of the following secondar sy aquatic animals is blooder are conf?
  - (a) Carcharodo carcha as

(b) Balaenoptera ....sculus

- (c) Chi w xa
- (d) Hyd ophis

3. Consucr the following statements :

- Marine fishes drink water to solve the problem of dehydration.
- 2. The glomeruli of marine fishes are well-vascularized.
- In marine fishes, the loss of salt is kept at minimum level by active re-absorption in the proximal segment of the renal tubule.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

- 27. Match List-I with List-II and select
- the correct answer using the code given below the Lists:

### List-I

### List-II

- A. Desert adaptation
- Gibbon
- B. Fossorial adaptation
- 2. Naked mole rat
- C. Scansorial adaptation
- Opossum
- D. Arboreal adaptation
- 4. Horned toad

## Code:

- (a) A B C D
  1 2 3 4
- (b) A B C D 1 3 2 4
- (e) A B C D 4 3 2 1
- (d) A B C D 4 2 3 1
- 28. Consider the following pairs
  - I. Secondary aquatic animal
- Exceptus
- 2. Desert fauna of India
- : Uromastyx
- 3. Seawate sanal : Daphnia

Which of the above pairs is/are correct, catched?

- (a) I and 2 only
- b) 2 and 3 only
- (c) 2 only
  - (d) 1, 2 and 3

- 29. Consider the following statements:
  - The <u>slothbear</u> is mainly nocturnal
  - The V-shaped patch of white on the chest is distinguishing feature of slothbear.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both and 2
- (d) it er nor 2
- 30. With reference to environmental volution, consider the following statements:
  - Organic phosphates are degradable chemical insecticides.
  - Chlorinated hydrocarbons depress photosynthesis of marine phytoplankton but have no adverse effect on aquatic animals.

Which of the statements given above is/are correct?

- $(\alpha)$  1 only
- (b) 2 only
- (c) Both 1 and 2
- d) Neither 1 nor 2

- 31. Which one of the following vertebrates retains the left systemic arch?
  - (a) Frog
  - (b) Lizard
  - (c) Pigeon

Rat

- 32. Urinary bladder is absent in all birds, except
  - (a) duck
  - (b) gull
  - (c) owl

(d) ostrich

- 33. Thermoregulatory centre in mammals is located in
  - (a) pons Varolii
  - (b) floccular lobes
  - (c) (hypothalamus
  - (d) corpus callosum
- . 34. Which of the following is not a function of sympathetic nervous system?
  - (a) A creatin blood sugar -
  - W Risk in blood pressure '
  - (c) Decrease in clotting time of blood

(d) Constriction of bronchi

35. Consider the following statements:

## Coenzyme

- is necessary for the active state
  of an enzyme
- 2. remains unchanged at the end of reaction
- 3. is non-protein in natur

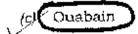
Which of the statements given above are correct?

- $\{a\}$  1, 2 and 3
- (b) 2 and 3 duly
- (c) 1 and 3 only
- d)  $\forall$  and 2 only
- Which one of the following is a common feature of facilitated transport and active transport?
  - (a) Both involve expenditure of energy.

Both involve membrane transport proteins

- (c) In both, transport takes place necessarily from a region of higher concentration to a region of lower concentration
- (d) Both can take place in either direction irrespective of concentration gradient

- 37. Which one of the following compounds is an inhibitor of Na<sup>+</sup>-K<sup>+</sup> pump?
  - (a) Arsenol
  - (b) Dicumarol



- (d) Phlorizin
- 38. Consider the following statements :
  - Black leopard can be found in Western Ghats.
  - Snow leopard is found only in Arunachal Pradesh.

Which of the statements given above is/are correct?

- (a) I only
- (b) 2 only

(g) Both 1 and 2

- (d) Neither 1 nor 2
- 39. Most of the energy is lifters ad in the cells by oxidation of the pollydrates when
  - (a) pyruvic as a converted into acety Co.
  - (b) vir vic acid is converted into
    - a grucose is converted into pyruvic acid
    - (d) glucose is converted into alcohol and CO<sub>2</sub>

- **40.** Oxidation of nutrients in catabolism releases energy which drives the synthesis of
  - (a) cyclic AMP
  - (b) AMP
  - (c) ADP

(d) ATP

- 41. The protoplasm essentially contains various types of proteins, which differ structurally is will as on the hasis of their water solubility, like fibrillar, configured, globular, etc. Which crases he following groups belongs to conjugated globular
  - A Pseudoglobulin, protamine, histone

Chromoprotein, glycoprotein, nucleoprotein

- (c) Euglobulin, protamine, glutelin
- (d) Albumin, clastin, collagen
- 42. Among the following types of proteins, which one is the simple water-soluble globular protein molecule?

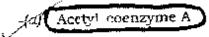
のできるとのできるというないというないのできるとはないのできるというというないのできるというないのできるというないのできるというないのできるというないのできるというないのできるというできるというできる

(a) Collagen

(b) Albumin

- (c) Elastin
- (d) Keratin

43. Which one of the following compounds <u>cannot</u> give rise to the net synthesis of glucose?

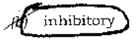


- (b) Glycerol
- (c) Lactațe
- (d) Oxaloacetate
- 44. In which one of the following groups of chemicals, all are neurotransmitters?
  - (a) Somatostatin, serotonin, acetylcholine
  - (b) Noradrenaline, somatostatin, threonine
  - (c) Glycine, dopamine, melatonin
  - (d) Acetylcholine, noradrenaline,
- 45. Consider the following statement
  - Saxitoxin is produced by certain species of narine dinoflageilates.
  - Saxitoxin is net toxin that acts as selective sodium change? It is ter.

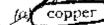
Which of the statements given above is, a correct?

- (a) 1 only
- j=2 only
- (c) Both 1 and 2
- (d) Neither I nor 2

- 46. GABA (gamma-aminobutyric acid), which is released from the brain, is
  - (a) excitatory



- (c) mixed type
- (d) sensory
- a and a<sub>3</sub>, cytochrom oxiouse also contains two atops o



- (b) mag lest and
- (c) suiph.
- 1. m ge1
- Consider the following events in muscle contraction:
  - 1. Action potential depolarizes the T-tubules.
  - Calcium binds to troponin .... tropomyosin complex.
  - Actin combines with myosin ATP leading to cross-bridge activation.
  - Depolarization of T-tubules releases calcium from sarcoplasmic reticulum.

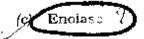
What is the correct sequence of the above?

- (a) 2-1-3-4
- (b) 1-4-3-2

(de) 1-4-2-3

(d) 2-1-4-3

- Which one of the following glycolytic enzymes is inhibited by fluoride?
  - (a) Lactate dehydrogenase
  - (b) Pyruvate kinase



- (d) Hexokinase
- catalyzes glucose to glucose-6phosphate in glycolysis, is inhibited by glucose-6-phosphate. This is an example for

(a) feedback allosteric inhibition

- (b) positive feedback inhibition
- (c) competitive inhibition
- (d) non-competitive inhibition
- converted to oxale state in a reaction catalyzed by opyruvate carboxylase. Pyruvate oxboxylase activity is enhanced by



citrate

(d) acetyl CoA

- **52.** Consider the following physiological processes:
  - Substrate level phosphorylation
  - 2, / Citric acid cycle
  - 3. Oxidative phosphorylation
  - β-oxidation

Which of the above are compact to carbohydrate and fatteracid catabolism?

- (a) 1 and 2
- (b) 1 and 3

(a) 2 and 3

(d) - 1 at 4.4

- 53. Mammals there several classes of the new distinguishable by their moter of action. Which one of the allowing groups of hormones acts through nuclear receptor?
  - (a) Peptide, amine and eicosanoid
  - (b) Peptide, steroid and retinoid

(c) Steroid, retinoid and thyroid

- (d) Steroid, retinoid and eicosanoid
- 54. Which of the following hormones is proteinaceous in nature and is secreted by steroid-producing organ under special physiological state?
  - (a) Epinephrin
  - (b) Noradrenaline
  - (c) Thyroxin

(d) Relaxin

- 55. Which one of the following groups is of nutritionally essential amino acids?
  - (a) Tyrosine, valine, tryptophan
  - (b) Glycine, cystine, voline

. (c) Histidine, isoleucine, threonine

- (d) Tryptophan, leucine, glycine
- 56. Which of the following isomeric forms are biologically active in mammals?
  - (a) D-amino acids and D-sugars
  - (b) D-amino acids and L-sugars
  - (c) L-amino acids and L-sugars

(d) L-amino acids and D-sugars

- 57. The middle piece of a mamitalia sperm includes which one is the following sets of structures?
  - (a) Golgi apparatus, mitochondria and centrale
  - (b) Galgi apparatus, mitochondria an and filament
    - Golgi apparatus, centriole and

(d) Mitochondria, centriole and axial filament

- 58. The process that sperm undergoes in female genital tract of mammals before fertilization is called
  - (a) decapacitation

(b capacitation

- (c) activation
- (d) deactivation
- 59. The type of enzymes released by sperm acrosome of the time of acrosome fortilization is

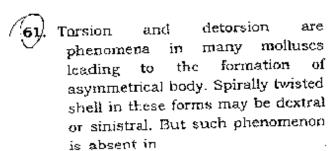
aj Næse

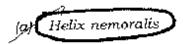
b) peptidase

(e) hydrolase

- (d) dehydrogenase
- 60. In eutherian mammals, the extraembryonic membrane(s) taking part in the formation of placenta is/are
  - (a) yolk sac
  - (b) allantois
  - (c) yolk sac and chorion

(d) chorion and allantois





- (b) Anodonia cygnea
- (c) Pila globosa
- (d) Achetina fulica
- 62. Gastropods with one gill and one auricle belong to
  - (a) Pulmonata
  - (b) Pectinibranchia
  - (c) Pelecypoda
  - (d) Scaphopoda
  - 63. A primitive molluse represents a sort of connecting link before. Annelida and Mollusca. Which one of the following is 10, 2017.
    - (a) Trancea
    - L Nesmenia
    - Neopilina
      - (d) Nucula

**64.** Echinoderms are considered to be the most evolved invertebrates, because they

# (a) are enterocoelic

- (b) show resemblance with chordates in their embryonic development
- (c) have a great power of regeneration
- (d) are schizocoela
- 65. Consider the following:
  - J. Soxilia
  - 2. Jugal
  - 3. Squamosal.
  - 4. Quadrate

Which two bones of the above join to form the zygomatic arch in the skull of rabbit?

- (a) 1 and 2
- 16 2 and 3
  - (c) 2 and 4
  - (d) 1 and 4

- **66.** The classification of reptiles is based on
  - (a) the presence or absence of epidermal scales on the body
  - (b) the presence or absence of temporal fossae in the skull
    - (c) the presence or absence of cleidoic eggs
    - (d) the presence or absence of movable eyelids
- 67. Exposed external gill slits, jaws and lack of bony endoskeleton are the characteristics of
  - (a) Agnatha
  - (b) Osteichthycs
  - (c) Chondrichthyes
    - (d) Choanichthyes
- 68. Presence of foramen of Panizzae is an important the exteristic of
  - (a) Ch : 2
    - Ophidia
  - (c) Crocodilia
  - (d) Cotylosauria

- **69.** Chimaera monstrosa (ratfish) is an example of an aberrant group of cartilaginous fish which belongs to
  - (a) Actinopterygii
  - (b) Chondrostei
  - (c) Holostei

(e) Holocephali

70. The uncle of Lorenzini is the organ

present on dorsal and ventral surfaces of the head of sharks, embedded in the skin and acts as thermoreceptor organ

- (b) present on the ventral surface of the body of sharks, embedded in the skin and acts as lubricating organ
- (c) present in the membranous labyrinth of sharks and acts as balancing organ
- (d) present in the water vascular system of starfishes and acts as locomotory organ

- 71. Which one of the following is absent in Bugula?
  - (a) Avicularium
  - (b) U-shaped alimentary canal
  - (c) Lophophore

Definitive excretory organs

- 72. If the activity of the contractile vacuole in Amocha is experimentally inhibited, the protozoon
  - (a) instantly undergoes binary fission, and develops new contractile vacuoies, one is shift in the two daughters. Its
  - (b) forms a cyst around itself, and waits for a land table time and condition
  - (c) ontracts, and finally appears a mini-animalcule

(at swells, and may finally burst

- 73. Which one of the following statements on Sycon is correct?
  - (a) It is profusely found in rivers, lakes and ponds
  - (b) In it, asexual reproduction is totally absent
  - (c) No larval form as been reported

(d) During sexual reproduction, the cook sore tes act as carrier eats

- 74. Apolysis' process in Taenia signifies certain changes in which
  - (a) mature proglottids get detached from the body
  - (b) immature proglottids become sexually mature

fel gravid proglottids are detached from the body

(d) mature proglottids form male and female reproductive organs

- 75. The infective juvenile of Ascaris moults for the third time to form the fourth larva. Where does it take place among the following?
  - (a) In the soil outside the host-body
  - (b) In the intestine of the host
  - (c) In the alveoli of lungs of the
    - (d) In the right side of heart of the host
- 76. In which segments of the earthworm, blood from the supracesophageal blood vessel is directed into the ventral blood vessel?
  - (a) 7th and 9th
  - (b) 10th and 11th

(c) 12th and 13th

- (d) 9th and 11th
- 77. Which of the following sats of parts/constituents of the body of *Pheretima* is as ocised with excretion?
  - (a) Chica so can cells and nucrates cells
  - M cocytes and Chlorogogen cens
  - Phagocytes and Chlorogogen cells
  - (d) Phagocytes and Mucocytes

 In Palaemon, the numbers of cephalic, thoracic and abdominal appendages are

(05, 08 and 06 respectively

- (b) 06, 07 and 06 respectively
- (c) 06, 06 and 07 respective
- (d) 07, 07 and 05 respectively
- 79. With reference to scorpion, consider the following statements:
  - 1. is spiratory pigment ocludes copper-containing protein.

tts coxal glands help in reproduction.

- 3. its book lungs are the respiratory organs.
- 4. Its heart consists of seven chambers.

Which of the statements given above are correct?

- (a) 1, 2, 3 and 4
- (b) 1, 2 and 3 only

(e) 1, 3 and 4 only

(d) 2, 3 and 4 only

- 80. Epimeron in the appendages of prawn is a structure which
  - (a) connects the appendages to its pleuron by a plate
    - (b) forms the base of maxillarv appendages
    - (c) cushions the chelate leg base
    - (d) cushions the non-chelate appendages
- The common garden snail, <u>Pila</u> <u>globosa</u>, lays its eggs
  - (a) in singles in water
  - (b) in a mass that floats in water
  - (c) in a mass attached to aquatic plants .
  - (d) in a mass on moist soil
- **82.** What is the correct sequence of the course of blood circulation in Pila?

Heart → cephal corts perivisceral sinus - branchiorenal sinus → ctels diem

- (b) Heart → 5 d sceral sinus → cephalis 30 ta → branchiorenal sinus → cteriidium
- (c) has → cephalic aorta → branchiorenal sinus → perivis-ral sinus → ctenidium
- (d) Heart → branchiorenal sinus → perivisceral sinus → cephalic aorta → ctenidium

- **83.** Which of the following functions performed by Tiedemann's bodies in starfishes is correct?
  - (a) They are digestive glan is
  - (b) They are excretory glan
  - (c) They are reproductive odies

They are lymphatic glands to many lackage the amoebocytes

84. Which of the following statements is not correct for Balanoglossus?

Notochord runs from end to end of the body and extends to the head region

- (b) Paired and median fins are present
- (c) Notochord persists throughout the life
- (d) The larva of Balanoglossus is known as ternaria larva

85. Which one of the following reptiles has a complete secondary palate?



- (b) Lizard
- (c) Snake
- (d) Tortoise
- 86. In Scoliodon, the base of the placoid scale is tied with the stratum compactum by
  - (a) vitro-dentine

(b) Sharpey's fibre

- (c) prototrochs
- (d) stratum germinativum
- a number of invertebrates and protochordates. Fow very this phenomenon is ten in one mammal. Which is the animal in question?
  - (a) Dol hin
  - Secrm whale

c) Walrus

Ja Balcen whale

88. The additional salivary gland present in canine species is

(a) moiar gland

(b) retrolingual gland

(orbital gland

(d) Harder's gland

89. In which of the following, the pneumatic duct these from the ventral rule followings?

(a) Acip user

- b) Sturgeon
- (c) Ceratodus

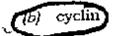
(d) Lepidosiren

- 90 In Columba, name the aortic arch which ost its connection with the dorsal aorta
  - (a) Left third arch
  - (b) Fourth arch
  - (c) Fifth arch

(d) Right sixth arch

N-DTQ-K-BQN/5C

- 96. Mitosis promoting factor (MPF) has two key subunits—one is catalytic and the other is regulatory. Which one of the following is the regulatory subunit?
  - (a) cdk



- (c) dyncin
- (d) dynactir.
- 97. Synaptonemal complex helps in
  - (a) gamete formation &
  - (b) recombination during cell division
  - (c) production of enzymes during cell division €
  - (d) chromosomal mo emo towards poles.
- 98. Consider the following statements related to mit she fan animal cell:
  - 1. Calls have least amount of D.A. G. period.
    - The amount of DNA hroughout interphase is not constant.
  - 3. A G<sub>2</sub> nucleus has maximum amount of DNA.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only

(d) 1, 2 and 3

- 99. Which one of the following descriptions best defines hetero-chromatin?
  - (a) Generated regions of chromosomes canched in unique
    - matin that contains cank-DNA' and considered as 'evolutionary debris'

Transcriptionally inactive and highly condensed regions of chromosome

- (d) DNA rich in tandem repeats of intermediate sequence
- 100. A deletion in the short arm of chromosome 5 produces in humans a genetic disorder called

di cri du chat syndrome

- (b) Down's syndrome
- (c) Edwards' syndrome
- (d) Patau's syndrome.

101. Consider the following statements:

Carrier proteins are required for the transport across plasma membrane of

- 1. amino acids
- 2. glucose
- 3. nucleotides

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 2 and 3 only
- (d 1, 2 and 3
- 102. Match List-I with List-II and select the correct answer using the code given below the Lists:

List-I (Sex Chromosomes) List-II (Animals)

- A. XY female, XX male
- . Grasshopper →
- B. XO female, XX male
- C. XX female, XO male /3. Fumeo
- D. 2n female, n male/
- 4. Sille m As

Honeybee

Code:

- (a) A B D D
- (b) A B C D
- (c) A B C D 4 3 2 1
  - A B C D. 4 3 1. 2

103. Match List-I with List-II and select the correct answer using the code given below the Lists:

List-I List-II
(Organisms) (Characteristics of Genomes)

- A. Phage X174
- Linear doublestranded DN which man form ring
- B. T<sub>2</sub> Bacteriophage
- 2. Linear doubletransfer DNA, but does not form ring
- C. SV40
- 3. Circular singlestranded DNA
- D. Pha
- Circular doublestranded DNA

Code

(b) A B C D

В

2

C

D

3

- (c) A B C D
- (d) A B C D 1 4 2 3

- 104. Consider the following statements: cDNA libraries are prepared from isolated
  - 1. tRNAs
  - 12. rRNAs
  - 3. mRNAs

Which of the statements given above is/are correct?

- (a) 1 and 2
- (b) 2-only
- (c) 2 and 3

1et 3 only

- 105. Which of the following statements about DNA is **not** correct?
  - (a) The double helix is righthanded
  - (b) The nitrogenous bases are stacked on the inside of the belix
  - (c) The two strands of the double helix are anti-parallel

(d) The bases of the two porynucleotides intendet by covalent bonding

- 106. Aeridine dyes to be as ICR-170 and ICR-191 to very powerful mutagons that induce
  - (a) p is t mutations
  - y rameshift mutations
  - c thiamine dimer formation
  - (d) suppressor mutations

107. Match List-I with List-II and select the correct answer using the code given below the Lists:

List-I

List-II

- --A. pBR322
- Vector
- B. EcoRIN
- 2. Transgenic monkey
- C. Andy
- Restriction endonuclease

Code:

- (a) A B C 1 2 3
- (b) A ·B ·2 3



- 08. Lesch-Nyhan disorder in humans is
  - sex-linked recessive
  - (c) autosomal recessive
  - (d) autosomal dominant
- 109. Which one of the following terms perfectly defines "genes located on the same chromosome without reference to their linkage relationship"?
  - (a) Syntenic
  - (b) Linkage
  - (c) Linker DNA
  - (d) Inheritance

- 115. Both *Hydra* and *Planaria* are metazoans. Though they belong to different phyla, they possess one common interesting feature. What is that common feature?
  - (a) Presence of flame cells

(b) Phenomenon of regeneration

- (c) Polymorphism
- (d) Bilateral symmetry
- 116. The body cavity of Ascaris cannot be called coelom, because
  - (a) the cavity is perivisceral
  - (b) the gut and gonads lie within the cavity

(c) the cavity contains pseudocoelomocytes

- (d) the cavity lacks epithelial lining
- 117. Which one of the following is the orly member of the class Meros oma of phylum Arthropoda to sur in in the modern times with practically no evolutionary change since this first appeared and is known as living fossil?
  - (a) Acc n o n
  - $(b^{\perp} \text{ A rm. } 1c)$
  - Limulus
  - Peripatus

- 118. The genus <u>Musis</u> can be distinguished from mysis larva by the presence of
  - (a) optic stalk
  - (b) well-developed telson
  - (c) statocyst
  - (d) biramous thoracic approads res
- 119. Peritrophic membrage is associated with a part of the dissertive system in
  - (a) scarie

(b) I eis

(c) Antedon

Periplaneta

120. The <u>schizocoelous</u> coelomates, looking like giant worms but devoid of gut and mouth, belong to

Pogonophora

- (c) Bryozoa 🖞
- (d) Ectoprocta-∤