# Shivaji University , Kolhapur

| Seat No. | |
|---|---|

**Paper Code(ENT202016)**

## M.Sc Entrance Exam , MAY-2020

## 58719-Zoology

**Day And Date :** Friday 20/11/2020 **Total Marks :** 100

**Time :** 15:30 To 17:00

| | | Marks |
|---|---|---|
| 1 | POP are contraceptives that contains synthetic----------<br>A) Progestinsand oestrogen<br>B) progestin<br>C) oestrogen<br>D) estradiol | 1 |
| 2 | Sickle-cell anemia is found to be lethal in one of the following conditions ..... a) b) e) d)<br>A) HbA HbA<br>B) HbA HBS<br>C) HbS HbS<br>D) HbB HbB | 1 |
| 3 | ..... is a rare but deadly virus that causes bleeding inside and outside the body OR A histogram is used to show a .....<br>A) Herpes OR Graphical representation<br>B) Rabies OR Class frequency distribution<br>C) Spirochaetes OR Class densities<br>D) Ebola OR Frequency distribution | 1 |
| 4 | In male reproductive system of Rat, Bulbourethral gland is nothing but the----------.<br>A) Cowper's gland<br>B) preputial gland<br>C) prostate gland<br>D) vesicular gland | 1 |
| 5 | Sclerotic plates are present in the eyes of .....<br>A) Amphibians<br>B) Aves<br>C) Reptiles<br>D) Mammals | 1 |
| 6 | Okazaki fragments are joined by ……<br>A) Endonuclease<br>B) Ligase<br>C) Gyrase<br>D) Lipase | 1 |
| 7 | Cloning vectors are DNA molecules that can carry ……<br>A) Foreign DNA fragment<br>B) Chromosome<br>C) Probes<br>D) Foreign protein | 1 |

8 Southern blotting is the technique for ……blot 1

A) RNA

B) Lipid

C) DNA

D) Protein

9 Anticodon of t- RNA is complimentary to codon of …… 1

A) DNA

B) r-RNA

C) m-RNA

D) Hn-RNA

10 Mammalian urine is ……..to the blood 1

A) Hyoptonic

B) Hypertonic

C) Isotonic

D) Ammonotelic

11 Shark liver oil and cod liver oil are natural rich source of …….. 1

A) Fat

B) Vitamin B & C

C) Vitamin K

D) Vitamin A

12 ……..is the exotic breed of goat. 1

A) Surti

B) Jamanapuri

C) Osmanabadi

D) Anglo-Nubian

13 In the chromosome if the centromere is located at the terminal end, then that chromosome is known as _____ chromosome. 1

A) Metacentricb. c. d.

B) Sub-metacentric

C) Acrocentric

D) Telocentric

14 The pores present in between the incurrent canals and radial canals are known as OR The Antennary of Green gland in prawns performs the function of 1

A) Apopyles OR Digestion

B) Prosopyles OR Osmoregulation

C) Openings OR Hormone secretion

D) Ostia OR Reproduction

15 The system of spaces and apertures in sponge body is collectively known as OR The temporary algal blooms forming algae in pond are 1

A) Radial system OR Euglenophyceae

B) Spongocoel OR Chlorophyceae

C) Canal system OR Both a and b

D) Porocytes OR None of above

16 The ..... develop gonads, and from their fertilised eggs new obelia colonies arise OR _____ breed of duck is most suitable integrated fish cum duck Farming 1

A) Testis OR Indian runner

B) Sperms OR sylhet

C) Ova OR mete

D) Medusae OR Nageshwari

17 The ..... is nothing but the red coral OR The outermost shinning layer of pearl is known as _____ 1

A) Tubipora OR Concholein

B) Corallium OR Nacre

C) Madreporaria OR Calcite

D) Gargonia OR Muscline

18 The ..... are biradially symmetrical organisms, lacking nematocysts, possessing ciliary plates in eight rows, and possessing a gelatinous ectomesoderm containing mesenchymal muscle fibres OR Oysters are ------. 1

A) Coelenterates OR arthropods

B) Protozoans OR sea weeds

C) Poriferans OR fishes

D) Ctenophora OR molluscs

19 Hydra belongs to phylum_____ 1

A) Arthropoda

B) Annelida

C) Mollusca

D) Coelenterata

20 During unfavorable climatic conditions Paramoecium reproduces by _____. 1

A) Transverse fission

B) Binary fission

C) Budding

D) Conjugation

21 The radial canal of sycon is lined with _____ cells. 1

A) Amoebocytes

B) Choanocytes

C) Myocytes

D) Scleroblasts

22 _____ is a malarial parasite 1

A) Monocystics

B) Entamoeba

C) Plasmodium

D) Trypanosoma

23 If the food is liquid or semiliquid, the insect should have the ----------type of mouth parts. 1

A) Piercing and sucking

B) biting and chewing

C) rasping

D) sponging

24 Intelligence is attributed to _____ part of brain 1

A) Olfactory

B) Cerebrum

C) Cerebellum

D) Auditory

25 One of the following is a cold blooded vertebrate ..... 1

A) Chameleon

B) Whale

C) Bat

D) Penguin

| | | |
|---|---|---|
| 26 | Synthesis of RNA from DNA template is called as.....<br>A) Transcription<br>B) Translation<br>C) Transduction<br>D) Translocation | 1 |
| 27 | ..... type is experimentally proved method of DNA replication.<br>A) conservative<br>B) semi conservative<br>C) Dispersive<br>D) Disruptive | 1 |
| 28 | ..... can be defined as “the process of arranging data in different groups according to similarities . OR Endocrine gland of fish is comprise of two basic components as Adenohyophysis and .....<br>A) Classification OR Neurohypophysis<br>B) Table OR Hypophysis<br>C) Data OR Pars Intermedia<br>D) Journal OR Ischemia | 1 |
| 29 | The way in which the items are spread out or distributed into various classes, is called as..... OR Cell type “ Somatotroph “ is secreted by which is the part of hypophysis?<br>A) Discrete frequency distribution OR Neurohypophysis<br>B) Frequency distribution OR Adenohypophysis<br>C) Continuous frequency distribution OR Pars nervosa<br>D) Class limit OR Pars Intermedia | 1 |
| 30 | Kupffer cells are present in----------<br>A) Liver<br>B) pancreas<br>C) tongue<br>D) salivary glands | 1 |
| 31 | According to the dental formula, Rat contains a total of ----------teeth .<br>A) 16<br>B) 8<br>C) 32<br>D) 4x2 | 1 |
| 32 | In mammalian stomach, HCl is secreted by----------<br>A) Zymogenic cells<br>B) enteroendocrine cells<br>C) foevolar cells<br>D) oxyntic cells | 1 |
| 33 | Which of the following is the cell type found in mammalian testis----------<br>A) Leydig cells<br>B) follicular cells<br>C) beta cells<br>D) sinusoids | 1 |
| 34 | TCL is a ……..type of chromatography<br>A) Adsorption<br>B) Absorption<br>C) Both A & B<br>D) None of these | 1 |

35 The caudal fin Labeo rohita is of _____ type 1
A) Protocercal
B) heterocercal
C) homocercal
D) diphycercal

36 The spiny and dry skin of animal are the adaptation for ……. habitat 1
A) Arboreal
B) Aquatic
C) Desert
D) Aerial

37 Prostaglandins plays an important role in ……processes 1
A) Digestive
B) Reproductive
C) Metabolic
D) Enzymatic

38 IUCN refers to ……. 1
A) International Union of Common Nation
B) International Union of Conservation of Nation
C) International Union of Common Nationality
D) International Union of Conservation of Nature

39 Mercury is …….poison 1
A) Nephrotoxic
B) Cardiac
C) Hepatotoxic
D) Gaastric

40 The lake with organic pollution and plenty of vegetation is called…… 1
A) Oliotrophic
B) Dystrophic
C) Aphotic
D) Eutrophic

41 The source of illumination in electron microscope is _____. 1
A) A beam of electron
B) Natural light
C) X-rays
D) UV-light

42 Head of the Cockroach is formed by the fusion of ..... segments. 1
A) 6
B) 4
C) 2
D) 8

43 An osphradium is: 1
A) Chemoreceptor
B) Tactile
C) Photosensory
D) Statoreceptor

| | | |
|---|---|---|
| 44 | Which of the following hormones are secreted by the corpus luteum?<br>A) Prolactin<br>B) Progesterone<br>C) Oestrogens<br>D) FSH | 1 |
| 45 | Major components of an immune system include--------<br>A) T-lymphocytes<br>B) B-lymphocyte<br>C) antibodies<br>D) All of Above | 1 |
| 46 | 6.In Amphioxus, the shallow groove present in the midcentral floor of pharynx is called as __.<br>A) Central pharyngeal groove<br>B) Sub pharyngeal groove<br>C) Atrium<br>D) Endostyle | 1 |
| 47 | ……..is process of separation of two polynucleotide strands in DNA carried at about 94 degree centigrade<br>A) Extension<br>B) Annealine<br>C) Denaturation<br>D) Renaturation | 1 |
| 48 | PCR is developed by ……<br>A) E. M. Southen<br>B) Kary Mullis<br>C) Alac Jeffry<br>D) Georges Kohler & Cesal Milstein | 1 |
| 49 | The mineralocorticoids and glucocorticoids are the secretions of ……. gland<br>A) Aderenal<br>B) Thyroid<br>C) Pancreas<br>D) Liver | 1 |
| 50 | When glucose appears in urine the physiological condition is called ……<br>A) Jaundice<br>B) Diabetes mellitus<br>C) Malaria<br>D) TB | 1 |
| 51 | Epinephrine and nor epinephrines are secreted by……...<br>A) Thyroid<br>B) Adrenal<br>C) Pancreas<br>D) Pituitary | 1 |
| 52 | Deficiency of vitamin C results in to…….<br>A) Scurvy<br>B) Pellagra<br>C) Anemia<br>D) Berry berry | 1 |

53 TCA cycle occurs in ……. 1

A) Mitochondria

B) Chloroplast

C) Cytoplasm

D) Peroxisomes

54 Genic balance theory of sex determination was given by---------- 1

A) Bridges

B) Morgan

C) Mendel

D) Darwin

55 Which of the following is produced with the combination of apoenzyme and coenzyme? 1

A) holoenzyme

B) enzyme - substrate complex

C) prosthetic group

D) enzyme –product complex

56 Bowmans capsule is site of …… 1

A) Tubular secretion

B) Selective reabsorption

C) Ultrafiltration

D) Passive absorption

57 The animal which is imitated is called the _____. 1

A) Mimic

B) Prey

C) Model

D) Original species

58 Vitamin …….is anti haemorrhagic vitamin 1

A) E

B) D

C) K

D) A

59 ..... splits the fat into very fine particles by a process called emulsification of fats. 1

A) Bile

B) Saliva

C) Mucus

D) Amylase

60 Termites belonging to class……. 1

A) Crustacea

B) Archnidae

C) Myriapoda

D) Insecta

61 Vitamin that is not found in milk is …….. 1

A) C

B) A

C) B2

D) B1

62 The Roan colour cattle is a example of _____. 1
A) Incomplete dominance
B) Co-dominance
C) Multiple allele
D) Dominance

63 Liver diverticulum of Amphioxus is concerned with _____. 1
A) Respiration
B) Excretion
C) Digestion
D) Osmoregulation

64 Kaziranga wildlife sanctuary is famous for……. 1
A) Tiger
B) Lion
C) Rhinoceros
D) Elephant

65 The major problem facing wild life is…… 1
A) Habitat destruction
B) Pollution
C) Poaching
D) Hunting

66 Nerve cell is not able to multiply because of …….. 1
A) Absnce of Sarcosome
B) Absence of spindle fibers
C) Absence of Chromosomes
D) Absence of Nucleuse

67 Saliva converts……. 1
A) Glycogen in to glucose
B) Protein in to amino acids
C) Starch in to maltose
D) Fats in to fatty acids

68 Sexual cannibalism is seen in ---------- 1
A) Praying mantis
B) Sepia
C) Honey bee
D) Firefly

69 An enzyme ……..is present in saliva. 1
A) Pepsin
B) Trypsin
C) Maltose
D) Ptylin

70 …….mosquito is carrier of malarial parasite. 1
A) Aedes
B) Culex
C) Female anopheles
D) Male anopheles

71 Indigenous Kadaknath breed of poultry bird is native of…….. i) ii) iii) iv) 1
Karnataka
A) Maharashtra
B) Gujarat
C) Madhya Pradesh
D) Uttar Pradesh

72 Most of the protozoa perform entirely animal like mode of nutrition, such 1
protozoa are called as OR The feeding habit of freshwater prawn is
_____ type
A) Holozoic OR Carnivorous
B) Holophytic OR Herbivorous
C) Saprozoic OR Omnivorous
D) Parasitic OR Detritivorous

73 In electron microscope the source of illumination is _____ 1
A) Beams of electrons
B) Natural light
C) X ray
D) UV- light

74 The fluid mosaic model of plasma membrane was proposed by _____. 1
A) Gorter and Grandel
B) Robertson
C) Davson and Danielli
D) Singer and Nicolson

75 In frog the testis are attached to the ventral surface of kidney by _____. 1
A) Mesorchium
B) Mesovarium
C) Mesogaster
D) Mesomere

76 The study of behavioral characteristics of animals is called _____. 1
A) Ecology
B) Pathology
C) Ethology
D) Economy

77 Placoid scales are found in _____. 1
A) Cartilgenous fishes
B) Bony fishes
C) Teleostei
D) Cypriniformes

78 9.The study of fossil is called _____. 1
A) Palynology
B) Paleozoology
C) Palaibotany
D) Paleontology

79 Peripatus is a connecting link between ..... a) b) c) d) 1
A) Mollusca and Echinodermata
B) Arthropoda and Mollusca
C) Annelida and Arthropoda
D) Echinodermata and Hemichordata

80 The study of behavioral characteristics of animals is called _____. 1

A) Ecology

B) Philology

C) Ethology

D) Evolution

81 The most important physiological buffer in the cytoplasm is ..... 1

A) Hemoglobin buffer system

B) Phosphate buffer

C) Acetate buffer

D) Bicarbonate buffer

82 ……..produce internal cut in DNA 1

A) DNA polymerase

B) Ligase

C) Restriction endonuclease

D) RNA polymerase

83 Hybridoma technology is being used in the manufacture of ……... 1

A) Antigens

B) Monoclonal Antibodies

C) Enzymes

D) Harmones

84 Diencephalon is enclosed a cavity is called as ---------- OR 'Secchi disc' is used to measure---------- 1

A) Optocoel OR hydrogen ion concentration

B) Diocoel OR transparency

C) Paracoel OR alkalinity

D) Myocoel OR hardness

85 During vitellogenesis, major part of yolk formation takes place in oocyte by---------- OR Dropsy in fish is characterized by---------- 1

A) Pancreas OR Dropping of eyelids

B) Adrenal gland OR Bleeding of fins

C) Kidney OR Drops of blood in gills

D) Liver OR Swollen belly

86 ---------- animal has complete four chambered heart OR Adaptations which are specialized to live at surface of water are called as---------- 1

A) Fish OR Floating adaptations

B) Crocodile OR Pelagic adaptations

C) Frog OR Benthic adaptations

D) Snakes OR Abbeys adaptations

87 ..... refers to the heading of the columns OR Function of lactotrophs is to regulate..... 1

A) Title OR Salt water balance during mating and egg laying

B) Head note OR Increase growth of BMR and fish body

C) Caption OR Osmoregulation and Melanogenesis

D) Stub OR Concentration and dispersion of pigments within melanophores

88 ..... is defined as the sum of all the values divided by the total number of items. OR Shallow area of wet bundh is called as..... 1

A) Arithmetic mean OR Moan

B) Mode OR Cherra

C) Median OR Catchment area

D) Sampling OR None of the above

89 ..... is defined as the square root of the arithmetic mean of the squares of the deviations from the mean OR The first mechanical computer derived was called as..... 1

A) Mean OR Babbage Engine

B) Standard deviation OR Analytical Engine

C) Table OR Calculating Engine

D) Sampling OR Theoretical Engine

90 In Drosophila the chromosomal type of sex determination is ..... 1

A) XX-XO

B) ZZ-ZW

C) XX-XY

D) Haploid -diploid

91 ..... is the most important part of the computer OR Database is nothing but collecting of data in 1

A) CPU OR Machine readable format

B) Mouse OR Language readable format

C) Monitor OR Software readable format

D) Key board OR None of the above

92 ..... is the study of nitrogenous base sequence of DNA OR The difference between upper limit and lower limit of classes is called as ..... 1

A) Genomics OR Class magnitude

B) Proteomics OR Class boundary

C) Amino acid sequence OR Class interval

D) Genetics OR Class frequency

93 Third aortic arch in vertebrates is called as ---------- arch OR Which fish is permanent fauna of brackish water? 1

A) Carotid OR Indian sea bass

B) Systemic OR Anguilla anguilla

C) Hyodean OR Tread fin fish

D) Pulmonary OR Clupeids

94 ---------- is basic kidney present in the vertebrates OR Mucous secretion in annelids helps in keeping …… around their body 1

A) Metanephros OR Water content

B) Mesonephros OR Resistance

C) Pronephros OR Low temperature

D) Archinephros OR Moisture

95 Heterocoelous vertebrae are found in ---------- OR Muddy shore animals have broad foot which prevents 1

A) Mammals OR swimming of the body

B) Amphibian OR flowing of the body

C) Fishes OR floating of the body

D) Birds OR sinking of the body

96 Venous heart is present in ---------- group of animals OR Standard secchi disc is …….. thick metal plate 1

A) Pisces OR ½ inch

B) Aves OR ¼ inch

C) Reptilian OR 1/3 inch

D) Mammals OR 1 inch

| | | |
|---|---|---|
| 97 | Movement in the endoderm cells in gastrulation is called as---------- OR Decreasing the number of mesh of net is called as ----------<br>A) Convergence or Increasing<br>B) Invagination or Descending<br>C) Involution or Bating<br>D) Divergence or Gutting | 1 |
| 98 | The process by which gametes are formed is called as---------- OR Shelf life of fish products is maximum due to----------<br>A) Spermatogenesis OR Salting<br>B) Oogenesis OR Smoking<br>C) Gametogenesis OR Canning<br>D) Parthenogenesis OR Drying | 1 |
| 99 | Corona radiate, secondary membrane is present in the egg of---------- OR Fresh fish can be recognized by some specific characters, the test called as----------<br>A) Amphibia or Colour test<br>B) Reptilia or Freshness test<br>C) Aves or Rigor mortis test<br>D) Mammal or Organoleptic test | 1 |
| 100 | Yolk granules are distributed around the nucleus of egg, such egg is called as----------egg OR Rancidity is a type of chemical fish spoilage caused due to----------<br>A) Telolecithal OR Reduction of fat<br>B) Centrolecithal OR Oxidation of fat<br>C) Isolecithal OR Saturation of fat<br>D) Isometric OR Emulsification of fat | 1 |