

RGUCET 2022

MSc Zoology

1	She is not even smiling these days, she is rather pensive. (select the proper synonym of the word “Pensive”)					
	a)Sad	b) Thoughtful	c) Gloomy	d) Black	b	Thoughtful
2	The five experiments gave disparate results. (select the proper synonym of the word “disparate”)					
	a) Similar	b) Encouraging	c) Strange	d) Different	d	Different
3	We should guard against our green-eyed friends. (Select the correct meaning of the idiom “green-eyed”)					
	a) Rich	b) Jealous	c) Handsome	d) Enthusiastic	b	Jealous
4	The Central Rice Research Station is situated in?					
	a) Chennai	b) Cuttack	c) Bangalore	d) Quilon	b	Cuttack
5	The hottest planet in the solar system-					
	a) Mercury	b) Venus	c) Mars	d) Jupiter	b	Venus
6	Which is the first country to approve a vaccine against Covid-19?					
	a) Russia	b) China	c) United States	d) United Kingdom	a	Russia
7	Which is the headquarters of United Nations Environment Programme (UNEP)?					
	a)Geneva	b) Nairobi	c) Paris	d) New York	b	Nairobi
8	Who has been selected for Assam’s highest civilian award ‘Assam Baibhav’?					
	a) Ratan Tata	b) Gautam Adani	c)Mukesh Ambani	d) Azim Premji	a	Ratan Tata
9	The greatest number of 5 digits exactly divisible by 15, 24 and 36 is-					
	a)99620	b)99720	c)99968	d)99960	b	99720
10	The sum of first five prime numbers is:					
	a)26	b) 15	c) 39	d) 28	d	28
11	Which of the following words is not synonym of amicable?					
	a) Cordial	b)Unsociable	c) Civil	d) Clubby	b	Unsociable
12	It was the past midnight, so there were.....people in the street.					
	a) Few	b) Any	c) A few	d) Very	a	Few
13	Ramesh diedan undiagnosed fever.					
	a) For	b) By	c) From	d) Of	d	Of

14	What will be the next number in the series 4, 9, 13, 22, 35,					
	a) 48	b) 62	c) 70	d) 57	d	57
15	A man walks 5 km toward south and then turns to the right. After walking 3 km he turns to the left and walks 5 km. Now in which direction is he from the starting place?					
	a) South-West	b) North-East	c) South-East	d) North-West	a	South-West
16	Vladimir Putin is the President of Russian for					
	a) 1 st term	b) 2 nd term	c) 3 rd term	d) 4 th term	d	4 th term
17	The Hornbill Festival, the 'Festivals of Festivals' is an annual cultural fest of					
	a) Nagaland	b) Dehradun	c) Arunachal Pradesh	d) Meghalaya	a	Nagaland
18	Rabindranath Tagore wrote the national anthem of					
	a) India & Pakistan	b) Srilanka & India	c) Bangladesh & Srilanka	d) India and Bangladesh	d	India and Bangladesh
19	The present Secretary-General of the United Nations is					
	a) Gladwyn Jebb	b) António Guterres	c) Munir Akram	d) Tedros Adhanom Ghebreyesus	b	António Guterres
20	The present Governor of the Reserve Bank of India is					
	a) Sri Shaktikanta Das	b) Sri M. K. Jain	c) Dr. M.D. Patra	d) Sri T. Rabi Sankar	a	Sri Shaktikanta Das
21	Twenty women can complete a project in sixteen days. Sixteen men can do the same work in fifteen days. What is the ratio between the capacity of a man and a woman?					
	a) 3:4	b) 4:3	c) 5:3	d) Data inadequate	b	4:3
22	The length of a train and that of a platform are equal. If with a speed of 90 km/h, the train crosses the platform in one minute, then the length of the train (in meters) is:					
	a) 500	b) 600	c) 750	d) 900	c	750
23	Choose the appropriate words to complete the sentence: Middle silk glad was reported toboth fibroin and sericin.					
	a) contain	b) have contained	c) be contained	d) have contain	a	contain
24	The last amendment of the Wildlife Protection Act was during					
	a) 2006	b) 2013	c) 2017	d) 2021	d	2021
25	Blue Vanda is					
	a) an orchid	b) insectivorous plant	c) Pitcher plant	d) the plant bearing the largest flower	a	an orchid

26	The number of heme group in a hemoglobin molecule is:					
	a) 2	b) 4	c) 8	d) 1	b	4
27	Which of the following cell does not have nucleus					
	a) Lymphocytes	b) Platelets	c) White blood cells	d) Red blood cells	d.	Red blood cells
28	Which of the following is not a component of food					
	a) Carbohydrate	b) Water	c) Vitamins	d) Lipid	b	Water
29	Which of the following cell in the body never divide					
	a) Nerve cell	b) Somatic cell	c) Germ cell	d) Glandular epithelium	a	Nerve cell
30	The balancing organ in mice is					
	a) Brain	b) Hypothalamus	c) Internal ear	d) Central nervous system	c	Internal ear
31	In mammalian digestive system hydrochloric acid is formed in					
	a) Mouth	b) Stomach	c) Small intestine	d) Gall bladder	b	Stomach
32	Leiberkuhn gland is found in					
	a) Small intestine	b) Large intestine	c) Rectum	d) Esophagus	a	Small intestine
33	Which of the following is a haploid cell					
	a) Spermatogonia	b) Spermatoocyte	c) Spermatid	d) Spermatogonium	c	Spermatid
34	Chief cells and parietal cells are found in					
	a) Stomach	b) Intestine	c) Liver	d) Pancreas	a	Stomach
35	Which of the following does not synthesize enzyme					
	a) Oral cavity	b) Small intestine	c) Liver	d) Stomach	c	Liver
36	Function of salivary amylase is					
	a) Digest lipid	b) Breakdown of polysaccharide	c) Digestion of protein	d) Lubrication of food in mouth	b	Breakdown of polysaccharide
37	Pepsinogen in stomach is activated by					

	a) Presence of food	b) Hydrochloric acid	c) Bicarbonate ion	d) Chloride ion	b	Hydrochloric acid
38	Testosterone is synthesized by					
	a) Ovary	b) Epididymis	c) Seminiferous tubule	d) Leydig cells	d	Leydig cells
39	Which of the following is not an endocrine gland					
	a) Pituitary	b) Testis	c) Pancreas	d) Parotid gland	d	Parotid gland
40	Luteinizing hormone is synthesized by					
	a) Hypothalamus	b) Adenohypophysis	c) Adenohypophysis a.	d) Pineal	b	Adenohypophysis
41	Mineralocorticoid is synthesized by					
	a) Posterior pituitary	b) Adrenal cortex	c) Adrenal medulla	d) Kidney	b	Adrenal cortex
42	Estradiol-17 β is synthesized by					
	a) Ovarian follicle	b) Corpora lutea	c) Sertoli cells	d) Oocyte	a	Ovarian follicle
43	Blood urea is synthesized in					
	a) Kidney	b) Liver	c) Spleen	d) Urine	b	Liver
44	Loop of Henle is present in					
	a) Kidney	b) Spleen	c) Intestine	d) Rete testis	a	Kidney
45	ATP is synthesized in					
	a) Cell cytoplasm	b) Cell nucleus	c) Inside mitochondria	d) Inside Endoplasmic reticulum	c	Inside mitochondria
46	Which of the following contain triplet codon for amino acid transfer					
	a) rRNA	b) tRNA	c) mRNA	d) siRNA	b	tRNA
47	All proteins found in the nucleus are synthesized in					
	a) Cytoplasm	b) Nucleus	c) Lysosome	d) Both a and b	a	Cytoplasm

48	Which can diffuse through a water-filled channel in the nuclear pore complex?					
	a) Ions	b) Small metabolites	c) Globular proteins up to >100 kDa	d) Both a and b	d	Both a and b
49	Fluid mosaic model was proposed by					
	a) Singer and Nicolson	b) Davson and Danielli	c) Watson and Crick	d) Robert Hooke	a	Singer and Nicolson
50	Bacterial cell wall is made up of					
	a) Cellulose	b) Peptidoglycan	c) Chitin	d) Starch	b	Peptidoglycan
51	Cadherins are cell-adhesion molecules (CAMs) responsible for.....dependent interactions between cells in epithelial and other tissues.					
	a) Ca^{2+}	b) Mg^{2+}	c) Zn^{2+}	d) Fe^{3+}	a	Ca^{2+}
52	Protein kinase A is activated by					
	a) 3',5'-cyclic GMP (cGMP)	b) 3',5'-cyclic AMP (cAMP)	c) 1,2-diacylglycerol (DAG)	d) Inositol 1,4,5-trisphosphate (IP ₃)	b	3',5'-cyclic AMP (cAMP)
53	The G _α subunit is a GTPase switch protein that alternates between an active (on) state with bound and an inactive (off) state with bound					
	a) GDP, GTP	b) cGMP, IP ₃	c) GTP, GDP	d) GDP, GMP	c	GTP, GDP
54	Which of the following type of ATPase are present in endosomes?					
	a) V-ATPase	b) P-ATPase	c) F-ATPase	D) Both a and b	a	V-ATPase
55	Which of the following cytoskeletal protein is the largest protein?					
	a) Myosin	b) Troponin	c) Titin	d) Actin	c	Titin
56	Nitric acid is a.....signaling molecule.					
	a) Paracrine	b) Endocrine	c) Exocrine	d) None	a	Paracrine
57	How many DNA molecules are present in the cells just before entering mitosis?					
	a) 23	b) 92	c) 46	d) 23×10^{22}	b	92
58	Crossing over takes place in					
	a) Leptotene	b) Zygotene	c) Diplotene	d) Pachytene	d	Pachytene
59	The n-dimensional hypervolume concept of niche was proposed by					
	a) Hutchinson	b) Eugene Odum	c) A. G. Tensley	d) Lemark	a	Hutchinson
60	Temperature, light, air, water, and soil are all _____ parts of the environment					
	a) Biotic	b) Living	c) Alive	d) Abiotic	d	Abiotic

61	Which of the following pyramid is always upright, can never inverted					
	a) Pyramid of dry biomass	b) Pyramid of number	c) Pyramid of energy	d) Pyramid of biomass	c	Pyramid of energy
62	The driving force of the ecosystem is					
	a) Solar energy	b) Producer	c) Biomass	d) Carbohydrates in plants	a	Solar energy
63	Association of nitrogen fixing bacteria with the leguminous root is					
	a) Neutralism	b) Mutualism	c) Commensalism	d) Parasitism	b	Mutualism
64	The yellowness of the Taj Mahal is an effect of					
	a) Acid rain	b) Ozon layer depletion	c) Allergen	d) Peroxyacetyl nitrate	a	Acid rain
65	Which of the following enzymes separates the two strands of DNA during replication?					
	a) Gyrase	b) Topoisomerase	c) Helicase	d) DNA polymerase	c	Helicase
66	The fragments of DNA are joined together by which of the following enzymes?					
	a) Endonuclease	b) DNA polymerase	c) Primase	d) Ligase	d	Ligase
67	If the DNA strand has nitrogenous base sequence ATTGCC, the mRNA will have?					
	a) ATTGCA	b) UGGACC	c) UAACGG	d) ATCGCC	c	UAACGG
68	Sigma factor is a component of-					
	a) DNA ligase	b) DNA polymerase	c) Endonuclease	d) RNA polymerase	d	RNA polymerase
69	Which of these subunits of RNA polymerase is totally required to initiate transcription?					
	a) alpha (α)	b) sigma (σ)	c) omega (ω)	d) beta (β)	b	sigma (σ)
70	The thread-like structures, which appear inside the nucleus at the time of cell division, are called _____.					
	a) Asters	b) Centrioles	c) Chromosomes	d) Spindle fibers	c	Chromosomes
71	Klenow fragment is derived from-					
	a) DNA Ligase	b) DNA Pol-I	c) DNA Pol-II	d) Reverse Transcriptase	b	DNA Pol-I
72	During the anaphase stage in a bone marrow cell, each of the chromosomes has_____.					
	a) No chromatids	b) One chromatid	c) Two chromatids	d) Several chromatids	b	One chromatid
73	The human genome project was launched in the year-					
	a) 1980	b) 1973	c) 1990	d) 1989	c	1990
74	Which of the following is not a chain termination codon?					
	a) UAA	b) UCC	c) UFF	d) UGG	d	UGG
75	The first amino acid added by the tRNA is added to the anticodon					

	_____.					
	a) AUG	b) UAC	c) ACG	d) PCE	b	UAC
76	Which is positional central tendency?					
	a) Arithmetic Mean	b) Geometric Mean	c) Harmonic Mean	d) Median	d	Median
77	Which is NOT a type of variability?					
	a) Biological variability	b) Random variability	c) Real variability	d) Experimental variability	b	Random variability
78	Coefficient of variation is also known as _____?					
	a) Quartile deviation	b) Standard deviation	c) Relative Standard deviation	d) Coefficient of Mean deviation	c	Relative Standard deviation
79	The relationship between more than two variables is said to be _____?					
	a) Simple correlation	b) Random correlation	c) Partial correlation	d) Multiple correlation	d	Multiple correlation
80	In regression analysis independent variable is also known as _____?					
	a) Regressor	b) Predictor	c) Explanatory variable	d) All of the above	d	All of the above
81	If the calculated value of chi-square lies in the region of acceptance, then we -					
	a) Accept H_0	b) Reject H_0	c) No conclusion	d) None of the above	a	Accept H_0
82	When the size of samples is increasing then variance of sample means is also -					
	a) Increases	b) Decreases	c) Constant	d) None of the above	b	Decreases
83	Insects are					
	a) Endognathous hexapods	b) Ectognathous hexapods	c) Only animals with an exoskeleton	d) Only animals with antennae	b	Ectognathous hexapods
84	Which of the following is a taxonomic category?					
	a) Reptilia	b) <i>Panthera tigris</i>	c) Aves	d) Class	d	Class
85	Which of the following is a hemipteran rice pest?					
	a) Rice hispa	b) Rice Gandhi bug	c) Rice grasshopper	d) Yellow stem borer	b	Rice Gandhi bug
86	Which of the following is not a peptide hormone					
	a) Bursicon	b) Eclosion	c) Diapause hormone	d) Juvenile hormone	d	Juvenile hormone
87	Which of the following is a host plant of Eri silkworm <i>Samia cynthia ricini</i>					

	a) <i>Morus indica</i>	b) <i>Litsea polyantha</i>	c) <i>Heteropanax fragrans</i>	d) <i>Terminalia arjuna</i>	c	<i>Heteropanax fragrans</i>
88	The book Systema Nature was written by					
	a) Linnaeus	b) A. P. de Candolle	c) Simpson	d) Darwin	a	Linnaeus
89	The biological species concept was introduced by					
	a) Linnaeus	b) Dobzhansky	c) Huxley	d) Darwin	b	Dobzhansky
90	The International Commission on Zoological Nomenclature was set up in the year.					
	a) 1735	b) 1895	c) 1972	d) 1999	b	1895
91	A specimen, not in the type upon which a subsequent or supplementary description or figure is based is called					
	a) Apotype	b) neotype	c) holotype	d) lectotype	a	Apotype
92	Conspecific means					
	a) Similar species	b) Distantly related species	c) Individuals of the same species	d) All species in a locality	c	Individuals of the same species
93	Hilsa is an example of					
	a) Anadromous fish	b) catadromous fish	c) Potamodromous fish	d) Oceanodromous fish	b	catadromous fish
94	Antennules are found in					
	a) Crustacea	b) Bees	c) Millipedes	d) Centipedes	a	Crustacea
95	The β -pleated sheet is seen in					
	a) Insulin	b) Growth hormone	c) Sucrose	d) Sericin	d	Sericin
96	Select the cavity-nesting honeybee					
	a) <i>Apis florea</i>	b) <i>Apis andeniformis</i>	c) <i>Apis cerana</i>	d) <i>Apis laboriosa</i>	c	<i>Apis cerana</i>
97	Which of the following is not a surface feeder fish					
	a) Bluefin tuna	b) Catla	c) Rohu	d) Silver carp	c	Rohu
98	The bulk composition of royal jelly produced by a honey bee is					
	a) Sugar	b) Lipid	c) Water	d) Protein	c	Water
99	Propolis is					
	a) Regurgitated honey	b) Resinous mixture	c) Semi-digested pollen	d) Protein	b	Resinous mixture
100	Which part of the silk gland of <i>Bombyx mori</i> secretes fibroin?					
	a) Anterior silk gland	b) Gland of Fillipi	c) Middle silk gland	d) Posterior silk gland	d	Posterior silk gland