

Test Booklet No. _____

This booklet consists of 100 questions and 18 printed pages.

RGUCET/2024/___/___

Series

NIL

**RGUCET 2024
Common Entrance Test, 2024**

ADVANCE POST GRADUATE DIPLOMA (BIODIVERSITY)

Full Marks: 100

Time: 2 Hours

Roll No.

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Day and Date of Examination: _____

Signature of Invigilator(s) _____

Signature of Candidate _____

General Instructions:

PLEASE READ ALL THE INSTRUCTIONS CAREFULLY BEFORE MAKING ANY ENTRY.

1. DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO.
2. Candidate must write his/her Roll Number on the space provided.
3. This Test Booklet contains 100 Multiple Choice Questions (MCQs) from the concerned subject. Each question carries 1 mark. There shall be negative marking of 0.25 against each wrong attempt.
4. Please check the Test Booklet to verify that the total pages and total number of questions contained in the test booklet are the same as those printed on the top of the first page. Also check whether the questions are in sequential order or not.
5. Candidates are not permitted to enter into the examination hall after the commencement of the entrance test or leave the examination hall within one hour thirty minutes.
6. Making any identification mark in the OMR Answer Sheet or writing Roll Number anywhere other than the specified places will lead to disqualification of the candidate.
7. Candidates shall maintain silence inside and outside the examination hall. If candidates are found violating the instructions mentioned herein or announced in the examination hall, they will be summarily disqualified from the entrance test.
8. In case of any dispute, the decision of the Entrance Test Committee shall be final and binding.
9. The OMR Answer Sheet consists of two copies, the Original copy and the Student's copy.

1	Which of the following should be added to make $x^{16} + 81$ a perfect square?				
	a) $14x^8$	b) $16x^8$	c) $18x^8$	d) $20x^8$	c
2	What comes next in the series AGTS, BHUT, CIVU,				
	a) STGA	b) DJWV	c) DVUT	d) None of these	b
3	If $x = +$, $y = -$, $z = \div$, $P = \times$ then $(8 p 10) z 4 y 2 = ?$				Answer option (a,b,c or d)
	a) 40	b) 20	c) 18	d) 8	c
4	Which parameter in the Lotka-Volterra model determines the rate at which predators consume prey?				Answer option (a,b,c or d)
	a) r	b) K	c) a	d) c	a
5	Which of the following statistical methods is commonly used to analyze population data in ecological research?				Answer option (a,b,c or d)
	a) ANOVA (Analysis of Variance)	b) Chi-square test	c) Markov chain analysis	d) Linear regression	d
6	Which ecological concept describes the tendency for species with similar resource requirements to coexist in a community?				Answer option (a,b,c or d)
	a) Competitive exclusion principle	b) Resource partitioning	c) Niche differentiation	d) Ecological succession	b
7	Which statistical method is commonly used to analyze species abundance data in community ecology research?				Answer option (a,b,c or d)
	a) ANOVA (Analysis of Variance)	b) Simpson's diversity index	c) Chi-square test	d) Linear regression	b
8	Which of the following is an example of an invasive species negatively impacting biodiversity?				Answer option (a,b,c or d)

	a) Native pollinator species	b) Endangered predator species	c) Introduced plant species outcompeting native vegetation	d) Native fungal species facilitating decomposition	c
9	Which of the following is NOT a method used in biodiversity research?				Answer option (a,b,c or d)
	a) Species reintroduction	b) DNA barcoding	c) Ecological modeling	d) Remote sensing	a
10	Which statistical measure is commonly used to quantify species diversity in a community?				Answer option (a,b,c or d)
	a) Pearson correlation coefficient	b) Simpson's diversity index	c) Chi-square test	d) Analysis of Variance (ANOVA)	b
11	What is the primary role of genetic diversity in ecosystems?				Answer option (a,b,c or d)
	a) It ensures stability and adaptability to changing environmental conditions	b) It promotes species competition and extinction	c) It hinders ecosystem resilience	d) It accelerates ecosystem degradation	a
12	Which of the following is an example of an ecosystem service provided by biodiversity?				Answer option (a,b,c or d)
	a) Production of fossil fuels	b) Regulation of climate	c) Mining of minerals	d) Construction of buildings	b
13	Which international treaty aims to conserve biodiversity and ensure its sustainable use?				Answer option (a,b,c or d)
	a) The Paris Agreement	b) The Kyoto Protocol	c) The Nagoya Protocol	d) The Montreal Protocol	c

14	What is the term for the protected areas designated to conserve biodiversity?				Answer option (a,b,c or d)
	a) Green zones	b) Conservation reserves	c) Biodiversity hotspots	d) Urban sprawls	b
15	What is the term for the deliberate removal of invasive species to restore native biodiversity?				Answer option (a,b,c or d)
	a) Habitat fragmentation	b) Biological invasion	c) Ecological restoration	d) Conservation farming	c
16	Which of the following best describes the concept of population density?				Answer option (a,b,c or d)
	a) Total number of individuals in a population	b) Number of individuals per unit area or volume	c) Rate at which individuals reproduce	d) Measure of genetic diversity within a population	b
17	What does the "triple bottom line" refer to in sustainability?				Answer option (a,b,c or d)
	a) Profit, people, planet	b) Economy, ecology, equity	c) Environment, ethics, efficiency	d) Product, process, profit	a
18	Which of the following assertion and justification is correct? A: Assertion: Ethnobotanical indices are important for evaluation of ethnobotanical knowledge. B: Justification: It also important for evaluation of plant resource utilization pattern.				Answer option (a,b,c or d)
	a) Both A and B are false	b) Both A and B are correct and related to each other.	c) A is true but B is false	d) B is true but not related with A	b
19	Type Questions here for matching pairs:				Answer option (a,b,c or d)
	A. Voucher specimen		i. Plant pasting		
	B. Field collection number		ii. Accession Number		
	C. Vasculum		iii. Number assigned in field		
	D. Herbarium sheet		iv. For carrying plant specimen		

	a) A = iii, B=iv, C=I, D=ii	b) A=ii, B=iii, C=iv, D=i	c) A=iv, B=iv, C=I, D=ii	d) A=i, B=iv, C=iii, D=ii	b
20	The Field and Herbarium method of Jain and Rao was published in				Answer option (a,b,c or d)
	a)1978	b)1976	c)1979	d)1981	b
21	What is the name for the reproductive structures of fungi?				Answer option (a,b,c or d)
	a) Hyphae	b) Mycelium	c) Spores	d) Fruiting bodies	d
22	Which of the following is correct?				Answer option (a,b,c or d)
	a)Magnoliaceae is primitive family	b)Magnoliaceae is advanced family	c)Magnoliaceae is nor primitive nor advanced family	d)None of the statements a-c is true	a
23	Match the following pairs:				Answer option (a,b,c or d)
	A. L.f.		i. Father of JD Hooker		
	B. Hook		ii. Son of Carolus Linneaus		
	C. Robert Brown		iii. Carolus Linnaeus		
	D. L.		iv. R.Br		
	a). A=ii; B=i; C=iv; D=iii	b). A=iii; B=iv; C=ii; D=i	c). A=iii; B=iv; C=I; D=ii	d). A=iv; B=ii; C=iii; D=iv	a
24	Which of the following statement is true:				Answer option (a,b,c or d)
	A. <i>Oryza sativa</i> is belonging to Gramminae family				
	B. <i>Oryza sativa</i> is belonging to Poaceae family				
	C. <i>Oryza sativa</i> is belonging to Cyperaceae family				
	D. <i>Oryza sativa</i> is belonging to Rubiaceae family				
	a)A only	b) B only	c) Both A & B	d) Only C& D	c
25	Which of the following assertion and justification is correct?				Answer option (a,b,c or d)
	A: Assertion: Flora of British India was written by Carolus Linnaeus				
	B: Justification: Flora of British India was written JD Hooker				
	a) Both A & B is correct	b) Only A is correct	c) Only B is correct	d) None of the above is correct	c

26	Which of the following statement is correct?				Answer option (a,b,c or d)
	a) Balsam belonging to Rutaceae	b) Balsam belonging to Balsaminaceae	c) Balsam belonging to Commelinaceae	d) Balsam belonging to Orchidaceae	b
27	Which of the following statement is true?				Answer option (a,b,c or d)
	a) Talauma hodgsonii is the accepted name of Magnolia hodgsonii	b) Talauma hodgsonii is the synonym of Magnolia hodgsonii	c) Talauma hodgsonii is the duplicate name of Magnolia hodgsonii	d) None of the statement a-c are correct	b
28	Which of the following is correct?				Answer option (a,b,c or d)
	a) Orchidaceae has gynostemium	b) Orchidaceae has no gynostemium	c) Orchidaceae has many carpels	d) None of the statements a-c is true	a
29	Match the following pairs:				Answer option (a,b,c or d)
	A. Amla		i. <i>Magnolia champaca</i>		
	B. Tita Champaca		ii. <i>Embllica officinalis</i>		
	C. Sal		iii. <i>Tectona grandis</i>		
	D. Teak		iv. <i>Shorea robusta</i>		
	a). A=iii; B=iv; C=ii; D=i	b). A=ii; B=i; C=iv; D=iii	c). A=iii; B=iv; C=i; D=ii	d). A=iv; B=ii; C=iii; D=iv	b
30	Which of the following statement is true:				Answer option (a,b,c or d)
	<p>A. ICN stand for international code of nomenclature</p> <p>B. ICN stand for international code of nomenclature of algae, fungi and plants</p> <p>C. ICN stand for international code of nomenclature for fungi</p> <p>D. ICN stand for international code of nomenclature for algae</p>				
	a) A only	b) B only	c) Both A & B	d) Only C & D	b
31	Which of the following assertion and justification is correct?				Answer option (a,b,c or d)
	<p>A: Assertion: Field and Herbarium Method was authored by Jain & Rao (1976)</p> <p>B: Justification: It was published in year 1987</p>				
	a) Both A & B is correct	b) Only A is correct	c) Only B is correct	d) None of the above is correct	b

32	Which of the following statement is correct?				Answer option (a,b,c or d)
	a) Leguminosae has got vexillum aestivation	b) Leguminosae has got valvate aestivation	c) Leguminosae has got twisted aestivation	d) Leguminosae has got imbricate aestivation	a
33	Which of the following statement is true? A. <i>Magnolia</i> has numerous stamens and carpels B. <i>Magnolia</i> has few stamens and carpels C. <i>Magnolia</i> has only carpels D. <i>Magnolia</i> has no stamens and carpels				Answer option (a,b,c or d)
	a) A only	b) B only	c) Both A & B	d) Only C & D	a
34	Which of the following assertion and justification is correct? A: Assertion: Zingiberaceae has hard petals B: Justification: Zingiberaceae has soft and fleshy petals that last for few days only				Answer option (a,b,c or d)
	a) Both A & B is correct	b) Only A is correct	c) Only B is correct	d) None of the above is correct	c
35	Which of the following is correct?				Answer option (a,b,c or d)
	a) Peristome is related to Funaria	b) Peristome is related to Lycopodium	c) Peristome is related to Sphenophyllum	d) Peristome is related to Gymnosperm	a
36	Match the following paires:				Answer option (a,b,c or d)
	A. <i>Sphagnum</i>		i. Lycopodiales		
	B. <i>Lycopodium</i>		ii. Aquatic		
	C. <i>Diplazium esculentum</i>		iii. Mosses		
	D. <i>Marsilea</i>		iv. Pteridophyte		
	a). A=iii; B=i; C=iv; D=ii	b). A=ii; B=iii; C=i; D=iv	c). A=i; B=iii; C=ii; D=iv	d). A=i; B=ii; C=iii; D=iv	a
37	Which of the following statement is true: A. <i>Equisetum</i> is also called Donkey Tail B. <i>Equisetum</i> is also called Horse Tail C. <i>Equisetum</i> is also called bottle brush plant D. <i>Equisetum</i> is also called grass plant				Answer option (a,b,c or d)
	a)A only	b) B only	c) Both A & B	d) Only C & D	b

38	Which of the following assertion and justification is correct? A: Assertion: Bryophytes have a thallus structure B: Justification: Bryophytes donot have a thallus structure				Answer option (a,b,c or d)
	a) Both A & B is correct	b) Only A is correct	c) Only B is correct	d) None of the above is correct	b
39	What is heterospory fern?				Answer option (a,b,c or d)
	a) Fern with same spores size	b) Fern with different spores size	c) Fern with only large spore size	d) Fern without spores	b
40	Which of the following statement is true?				Answer option (a,b,c or d)
	a) <i>Selaginella</i> is a bryophyte	b) <i>Selaginella</i> is a flowering plant	c) <i>Selaginella</i> is a gymnosperm	d) <i>Selaginella</i> is a pteridophyte	d
41	Match the following paires:				Answer option (a,b,c or d)
	A. Paleobotany		i. Study of Fossil specimen		
	B. Paleontology		ii. Study of fossil plants		
	C. Paleozoology		iii. Study of ecology of ancient world		
	D. Paleocology		iv. Study of animal fossils		
	a) A=iv; B=iii; C=I; D=ii	b) A = ii; B=i; C=iv; D=iii	c) A=iii; B=ii; C=I; D=iv	d) A=i; B=iii; C=iv; D=ii	b
42	Which of the following statement is true? A. <i>Rhynia</i> is the first vascular land plant B. <i>Pentoxylon</i> is the first vascular land plant C. <i>Nipaniophyllum</i> is the first vascular land plant D. <i>Williamsonia</i> is the first vascular land plant				Answer option (a,b,c or d)
	a) Only A & B	b) Only A	c) Only B	d) Only C	b
43	Which of the following assertion and justification is correct? A: Assertion: <i>Calamite</i> is a fossil gymnosperm B: Justification: <i>Calamite</i> is a fossil pteridophytes				Answer option (a,b,c or d)
	a) Only A is correct	b) Only B is correct	c) Both A and B is correct	d) Both A and B is incorrect	b

44	Cupule structure is related to				Answer option (a,b,c or d)
	a) <i>Lyginopteris</i>	b) <i>Marsilea</i>	c) <i>Anthopogon</i>	d) <i>Funaria</i>	a
45	<i>Anabaena</i> is associated with roots of				Answer option (a,b,c or d)
	a) <i>Pinus</i>	b) <i>Cycas</i>	c) <i>Cedrus</i>	d) <i>Gingko</i>	b
46	Match the following pairs:				Answer option (a,b,c or d)
	A. <i>Pinus williachana</i>		i. Chir Pine		
	B. <i>Pinus roxburghii</i>		ii. Himalayan Blue Pine		
	C. <i>Gingko biloba</i>		iii. Maiden hair fern		
	D. <i>Adiantum</i>		iv. Maiden hair tree		
	a) A=iv; B=iii; C=ii; D=i	b) A=ii; B=i; C=iv; D=iii	c) A=iii; B=ii; C=i; D=iv	d) A=iv; B=iii; C=i; D=iv	b
47	Which of the following statement is true? A. Oleoresin is abundant in Coniferous B. Oleoresin is abundant in Angiosperm C. Oleoresin is abundant in Bryophytes D. Oleoresin is abundant in Pteridphytes				Answer option (a,b,c or d)
	a) Only A	b) Only B	c) Only C	d) Only D	a
48	Which of the following genus has a Triphasic life cycle?				a,b,c,d
	(a) <i>Chara</i>	(b) <i>Ectocarpus</i>	(c) <i>Scytonema</i>	(d) <i>Polysiphonia</i>	d
49	Consider the following fungi. A. <i>Synchytrium</i> B. <i>Mucor</i> C. <i>Penicillium</i> D. <i>Peziza</i> Now, identify those fungi that may form ascospore.				a,b,c,d
	(a) A and D	(b) B and D	(c) C and D	(d) D only	c
50	Consider the following statements about viruses. A. They can infects all forms of life. B. Viruses are difficult target for chemotherapy. C. In nature, RNA viruses are more in number than DNA viruses. Which of the following options represents all correct statements?				a,b,c,d
	(a) A only	(b) B only	(c) A and C only	(d) All statements are correct.	d
51	During interview for recruitment of health workers, a candidate stated that HIV transmission might occur through following routes.				a,b,c,d

	A. Intimate sexual contact B. Blood Transfusion C. Artificial insemination D. Breast milk Which of the following options represents all correct statements?				
	(a) A and B only	(b) A, B and C	(c) A, B and D	(d) All the statements were correct.	d
52	Correct arrangement of cell organelles based on size is:				a,b,c,d
	(a) Nucleus > Chloroplast > Peroxisome > Mitochondria	(b) Nucleus > Chloroplast > Mitochondria > Peroxisome	(c) Chloroplast > Nucleus > Mitochondria > Peroxisome	(d) Nucleus > Mitochondria > Chloroplast > Peroxisome	b
53	Consider the following statements about microtubules. A. They are polar molecules. B. They have hollow tube like structure. C. They help in intracellular motility. D. They are made up of tubulin monomers. Which of the following options represents all correct statements?				a,b,c,d
	(a) A and B only	(b) B and D only	(c) A, B and C only	(d) A, B and D only	c
54	Principle of independent assortment is NOT applicable in the case of:				a,b,c,d
	(a) Incomplete Dominance	(b) Codominance	(c) Epistasis	(d) Cytoplasmic Inheritance	d
55	ABO blood group is an example of:				a,b,c,d
	(a) Incomplete dominance	(b) Codominance	(c) Gene Interaction	(d) Incomplete penetrance	b
56	Which of the following is correct?				Answer option (a,b,c or d)
	a) Cuticle is the inner most layer.	b) Cuticle is the outer most layer.	c) Cuticle is the middle layer.	d) Cuticle is the outer layer of xylem most layer.	b
57	Match the following pairs:				Answer option (a,b,c or d)
	A. Xylem		i. Transportation of carbohydrate		
	B. Phloem		ii. Mineral and water transportation		
	C. Pith		iii. Robert Hooke		
	D. Cell		iv. Araliaceae		
	a). A=ii; B=i; C=iv; D=iii	b). A=iii; B=iv; C=ii; D=i	c). A=iii; B=iv; C=i; D=ii	d). A=iv; B=ii; C=iii; D=iv	a
58	Which of the following statement is true:				Answer option (a,b,c or d)
	A. Secondary wood is found in Angiopteris B. Secondary wood is found in higher vascular plant C. Secondary wood is found in bryophytes D. Secondary wood is found only in angiosperm				

	a) A only	b) B only	c) Both A & B	d) Only C & D	b
59	Which of the following assertion and justification is correct? A: Assertion: Secondary wood is hard B: Justification: Secondary wood is soft				Answer option (a,b,c or d)
	a) Both A & B is correct	b) Only A is correct	c) Only B is correct	d) None of the above is correct	c
60	Which of the following statement is correct?				Answer option (a,b,c or d)
	a) Vascular tissue of gymnosperm is superior than angiosperm	b) Vascular tissue of gymnosperm is inferior than angiosperm	c) Vascular tissue of gymnosperm is similar to angiosperm	d) Gymnosperm has superior than angiosperm	b
61	Which term describes a diagram that represents the flow of energy through different trophic levels in an ecosystem?				Answer option (a,b,c or d)
	a) Food web	b) Food chain	c) Trophic pyramid	d) Ecological niche	c
62	What is the term for the process by which organisms adjust to changes in their environment?				Answer option (a,b,c or d)
	a) Evolution	b) Adaptation	c) Homeostasis	d) Succession	b
63	What is the primary cause of habitat loss and fragmentation?				Answer option (a,b,c or d)
	a) Industrial pollution	b) Urbanization and agriculture	c) Conservation efforts	d) Climate change	b
64	How does climate change affect biodiversity?				Answer option (a,b,c or d)
	a) It reduces habitat loss	b) It promotes species adaptation	c) It disrupts ecosystems and alters habitats	d) It enhances genetic diversity	c

65	Which term describes the practice of removing trees from forests faster than they can regrow?				Answer option (a,b,c or d)
	a) Sustainable forestry	b) Reforestation	c) Afforestation	d) Deforestation	d
66	Which of the following is NOT a measure to mitigate threats to biodiversity?				Answer option (a,b,c or d)
	a) Protected areas establishment	b) Sustainable land management	c) Wildlife poaching	d) Conservation education and awareness programs	c
67	Which of the following is NOT a pillar of sustainable development?				Answer option (a,b,c or d)
	a) Economic sustainability	b) Social sustainability	c) Environmental sustainability	d) Technological sustainability	d
68	Which of the following best describes the concept of "intergenerational equity" in sustainable development?				Answer option (a,b,c or d)
	a) Ensuring that future generations have access to the same resources and opportunities as the present generation	b) Prioritizing short-term economic gains over long-term environmental consequences	c) Exploiting natural resources without consideration for future consequences	d) Maximizing short-term profits for current shareholders	a
69	Which of the following is an example of a sustainable practice?				Answer option (a,b,c or d)
	a) Clear-cutting forests for timber without replanting	b) Overfishing without implementing quotas	c) Investing in renewable energy sources like solar and wind power	d) Dumping hazardous waste into rivers and oceans	c

70	Which term describes the use of resources in a way that meets current needs without compromising future generations?				Answer option (a,b,c or d)
	a) Resource exploitation	b) Resource conservation	c) Resource depletion	d) Resource sustainability	b
71	Which of the following is NOT a measure of central tendency?				Answer option (a,b,c or d)
	a) Mean	b) Range	c) Median	d) Mode	b
72	What is the purpose of a hypothesis test in biostatistics?				Answer option (a,b,c or d)
	a) To summarize data	b) To make predictions about future outcomes	c) To determine if there is a significant difference between groups	d) To describe patterns or relationships in data	c
73	Which statistical test is used to compare means between two groups?				Answer option (a,b,c or d)
	a) Chi-square test	b) T-test	c) Analysis of Variance (ANOVA)	d) Regression analysis	b
74	Biological magnification refers to: A The increase in the number of species in a habitat B The concentration of toxins as they move up the food chain C The growth of populations over time D The spread of invasive species				Answer option (a,b,c or d)
	a) A & B	b) A	c) B	d) C & D	c
75	A: Assertion: Sponges (Porifera) do not have true tissues. B: Justification: Sponges have a cellular level of organization.				Answer option (a,b,c or d)
	a) Both A and B are true, and B is the correct	b) Both A and B are true, but B is not the correct explanation of A.	c) A is true, but B is false.	d) A is false, but B is true.	a

	explanation of A.				
76	Carrying capacity refers to:				Answer option (a,b,c or d)
	A) The maximum population size that an environment can sustain	B) The total biomass of a population	C) The reproductive rate of a population	D) The rate of immigration and emigration in a population	a
77	Which type of growth curve is characterized by a J-shaped curve?				Answer option (a,b,c or d)
	A) Logistic growth	B) Exponential growth	C) Stable growth	D) Declining growth	b
78	Find the correct matching pairs:				Answer option (a,b,c or d)
	A Introns	i Coding regions of mRNA transcript			
	B Ribosome	ii. Molecular machine that helps in translation			
	C RNA Polymerase	iii. The enzyme that synthesizes Protein from an RNA			
	D Promoter	iv. Site on DNA where RNA polymerase binds			
	a) A, B, and C	b) B and D	c) Only D	d) All of the above are correct	b
79	Find the correct statement (s).				Answer option (a,b,c or d)
	<p>A. Anticodon has a three-nucleotide sequence on tRNA that pairs with the rRNA</p> <p>B. Introns Coding regions of mRNA transcript</p> <p>C. In semiconservative replication, each new DNA molecule consists of one old and one newly synthesized strand</p> <p>D. Exons are non-coding regions of an RNA transcript that are removed before protein synthesis</p>				
	a) Only A is correct	b) Only B and D are correct	c) Only C is correct	d) All of the above are correct	c
80	Type Questions here for assertion and justification				Answer option (a,b,c or d)
	<p>A: Assertion- Flatworms (Platyhelminthes) have a complete digestive system.</p> <p>B: Justification- Flatworms have a mouth and an anus for the passage of food.</p>				
	a) Both A and B are true, and B is	b) Both A and B are true, but B is	c) A is true, but B is false.	d) Both A and B are false	d

	the correct explanation of A.	not the correct explanation of A.			
81	Density-dependent factors that regulate population size include:				Answer option (a,b,c or d)
	A) Natural disasters	B) Temperature	C) Disease	D) Sunlight	c
82	Which term describes the role and position of a species in its environment?				Answer option (a,b,c or d)
	A) Habitat	B) Niche	C) Trophic level	D) Succession	b
83	Find the correct match pairs:				Answer option (a,b,c or d)
	A Biome	i. Large geographic area with similar climate and vegetation.			
	B Community	ii. Different populations of species living and interacting in the same area			
	C Trophic Level	iii. The position an organism occupies in a food chain			
	D Niche	iv. The role or function of an organism in its environment			
	a) A and C	b) B and D	c) B, C, and D	d) All of the above	d
84	Find the incorrect statement (s) A. All chordates have a notochord at some stage in their life cycle. B. Chordates are defined by the presence of a backbone or vertebral column. C. In vertebrates, the notochord is replaced by the vertebral column during development. D. Chordates have a dorsal nerve cord				Answer option (a,b,c or d)
	a) Only A	b) Only B	c) Only B and D	d) None of the Above	b
85	Type Questions here for assertion and justification A: Assertion- Nematodes (roundworms) have a pseudocoelom. B: Justification- A pseudocoelom is a body cavity completely lined with mesoderm.				Answer option (a,b,c or d)
	a) Both A and B are true, and B is the correct explanation of A.	b) Both A and B are true, but B is not the correct explanation of A.	c) A is true, but B is false.	d) Both A and B are false	c

86	The exoskeleton of arthropods is primarily composed of:				Answer option (a,b,c or d)
	A) Cellulose	B) Chitin	C) Calcium carbonate	D) Silica	b
87	Which group of chordates has a heart that pumps blood?				Answer option (a,b,c or d)
	A) All chordates	B) Only vertebrates	C) Only cephalochordates	D) Only urochordates	b
88	Find the incorrect matching pair (s):				Answer option (a,b,c or d)
	ACnidaria	i. Animals with stinging cells called cnidocytes			
	BPlatyhelminthes	ii. Parasitic worms with a cylindrical body			
	CArthropoda	iii. Animals with an exoskeleton and jointed appendages			
	DMollusca	ivSoft-bodied animals, often with a shell			
	a) A	b) B	c) C	d) D	b
89	Find the correct statement (s): A. The greenhouse effect is entirely man-made. B. Habitat fragmentation generally enhances species survival. C. Overexploitation of resources can lead to the collapse of ecosystems. D. An ecological niche refers to the physical location where an organism lives, and nothing else.				Answer option (a,b,c or d)
	a) Only A	b) B and C	c) Only C	d) Only D	c
90	Type Questions here for assertion and justification A: Assertion- Cnidarians exhibit radial symmetry. B: Justification- Radial symmetry allows organisms to sense their environment from all directions.				Answer option (a,b,c or d)
	a) Both A and B are true, and B is the correct explanation of A.	b) Both A and B are true, but B is not the correct explanation of A.	c) A is true, but B is false.	d) Both A and B are false	a
91	Which of the following is NOT a macromolecule?				Answer option

					(a,b,c or d)
	A) Protein	B) Lipid	C) Glucose	D) DNA	c
92	Which fatty acid is considered essential because the human body cannot synthesize it?				Answer option (a,b,c or d)
	A) Palmitic acid	B) Oleic acid	C) Linoleic acid	D) Stearic acid	c
93	Find the correct match pair (s):				Answer option (a,b,c or d)
	AGlycolysis	i. The breakdown of glycogen to glucose-1-phosphate for energy			
	BGlycogenesis	ii. The process of converting glucose into pyruvate			
	CCitric Acid Cycle	iii. The cycle that oxidizes acetyl-CoA to CO ₂ , generating NADH, FADH ₂ , and ATP			
	DElectron Transport Chain	iv. Transportation of electron from cytosol to mitochondria			
	a) A and B	b) Only B	c) Only C	d) C and D	c
94	Find the incorrect statement (s):				Answer option (a,b,c or d)
	A. The kidneys are responsible for Urea production in humans. B. The brain uses glucose as its primary energy source. C. The small intestine is the main site for digestion and absorption of nutrients. D. The diaphragm is a major muscle involved in the process of breathing.				
	a) A and D	b) Only A	c) B and D	d) Only D	a
95	Type Questions here for assertion and justification				Answer option (a,b,c or d)
	A: Assertion- Glycolysis occurs in the mitochondria of eukaryotic cells. B: Justification- Glycolysis is the process of breaking down glucose to pyruvate, generating ATP in the mitochondria.				
	a) Both A and B are true, and B is the correct explanation of A.	b) Both A and B are true, but B is not the correct explanation of A.	c) A is true, but B is false.	d) Both A and B are false	d
96	Which molecule acts as the final electron acceptor in the electron transport chain?				Answer option (a,b,c or d)
	A) NAD ⁺	B) FAD	C) Oxygen	D) Water	C
97	Find the incorrect statement (s)				Answer option (a,b,c or d)
	A. Energy flow in an ecosystem is unidirectional. B. All invasive species are harmful to their new environments. C. In a trophic pyramid, energy decreases at each successive trophic level.				

	D. Ecotones are transitional zones between two different ecosystems				
	a) Only D	b) Only B	c) A and C	d) A and D	b
98	<p>Type Questions here for assertion and justification</p> <p>A: Assertion- Mollusks have a mantle that secretes the shell.</p> <p>B: Justification- The mantle is a tissue layer that covers the visceral mass in mollusks.</p>				Answer option (a,b,c or d)
	a) Both A and B are true, and B is the correct explanation of A.	b) Both A and B are true, but B is not the correct explanation of A.	c) A is true, but B is false.	d) Both A and B are false	a
99	In vertebrates, the brain is an extension of which structure?				Answer option (a,b,c or d)
	A) Notochord	B) Dorsal nerve cord	C) Pharyngeal slits	D) Endostyle	b
100	Find the incorrect match pairs:				Answer option (a,b,c or d)
	A Phylum	i. The rank just below kingdom			
	B Order	ii. The rank just below family			
	C Class	iii. Group of similar families			
	D Family	iv. The rank just below order			
	a) A and B	b) B	c) D	d) C and D	b