

Part – I A/2016 Examination: - B.A./B.Sc. Roll No.

Subject: Zoology-I

PAPER: A (Principles in Animal Life)

TIME ALLOWED: 2 hrs. MAX. MARKS: 15

Attempt this Paper on Separate Answer Sheet provided.

# Part -II (Subjective Type)

### Attempt any THREE questions of the Following:

3+3+3

- Q. 3. Attempt any three questions out of following
  - a. Write a note on Ribosomes.
  - b. What are multiple alleles. Write a note.
  - c. Describe interspecific interaction with reference to herbivory and predation.
  - d. Describe the fluid mosaic model of plasma membrane.
  - e. Write a note on cofactors and coenzymes

Part-III

### Attempt any ONE question:

Q.4 Explain the structure of Eukaryotic chromosome

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Q.5 Give a detailed account of cytoskeleton

Roll No.

Part – I A/2016 Examination: - B.A./B.Sc.

Subject: Zoology-I

PAPER: A (Principles in Animal Life)

TIME ALLOWED: 1 hr.

MAX. MARKS: 20

NOTE: 1. Cutting and overwriting is not allowed in objective part (Part-I)

2. In Part-I all questions are compulsory. Answer these questions on the questions sheet only.

3. Answer any three (3) questions from part – II and any one question from Part – III on separate answer sheet provided.

IMPORTANT NOTE: Attempt Part-I in the given time of 1 hour and hand over to the Centre Superintendent. The Centre Superintendent will provide you Answer sheet for Part-II and Part-III.

## Part-I

### For Part-I Time Allowed: 1hr & Max. Marks: 20 Q. 1. Multiple choice questions (Tick mark the right answer) 0.5×20=10

1	A sidio solutione have		·							
1.	Acidic solutions have	a pH						r		
a.	Equal to 7	b.	Less than seven		c.	More than seven	d.	d. None of the al		
2.	Such substances are called									
a.	Buffers	b. Isotonic c. Hypotonic d. hypertonic								
2164	1. :									
3.	Organic molecules that	t con	tain only carbon and l	hydr	ogen	are known as				
a.	Carbohydrates		Proteins	Ť	c.	Lipids	d.	1	nydrocarbons	
4.	Fluid mosaic model of	plas	ma membrane contair	ıs pr	otein	s and				
a.	Phospholipids	b.	Steroids		c.	Lipases	d.	I	Proteases	
								·····		
5.	Which mode of transpo	ort ac	cross the membrane ne	eeds	ener	gy derived from	n ATP			
a.	Osmosis				b.	Active trans				
c.	Diffusion				d.	Passive tran				
6.	Blood is a connective t	issuc	in which plasma sus	pend	ls spe	cialized		-		
a.	RBC	b.	WBC	C.		itelets d.	All	of abo	ve	
7.	The functional unit of	an ar	imal's body made up	of n	nore	than one type o	f tissue	es is		
a.	Organism			b.		gan				
c.	Species			d.		olecule				
8.	A plant eating animal i	s	· · · · · · · · · · · · · · · · · · ·					•	1	
a.	Producer	b.	Secondary consumer	c.	Pri	mary consumer	d.	Tertiar	y consumer	
9.	The optimal pH for per						<del></del>			
a.	3	b.	2	c.	4		d.	7		
4.0										
10.	In energy releasing pha			y A 7	Ps a		m one			
a.	2	b.	38			c. 4		d.	36	
44 1										
11.	During cell division the			as			· · · · · · · · · · · · · · · · · · ·			
a.	Mitosis	b.	Cytokinesis	c.	Cyt	tokines d.	Cyto	kinins		
12.	A specific DNA sequent chromosomes is known	ice o	f about 220 nucleotide	es th	at ha	s a specific loca	tion o	n any g	given	
a.	Centromere	b.	Centrosomes	<u>с.</u>	Con	ntriole	1.1	17:		
<u> </u>	Condonicio	0.	Controsontes	U.	Cer	in tote	d.	Kine	tochore	
13.	When the heterozygous	AV#	recess the phaneture	.fl	ath L					
a.	Dominance	b.							11.1	
и.	Dominance	υ.	Codominatice	c.	Mu	ltiple alleles	d.	Mon	ohybrid cross	

		alike and are not involv				<u> </u>
a.	X chromosome	b. Y chromosome	c <i>A</i>	Autosomes	<u>d.</u>	Sex chromosomes
15.	Hemizygous is a condi	ition in which	··		<u> </u>	
	Females have 1 gene	Females have 2	l N	Males have 2		Males have 1 gene for
a.	for a trait	b. genes for a trait	c. g	enes for a trait	d.	a trait
1	1 xx 1	<u> </u>				
16. a.	Cytosine	g refers to pyrimidines b. Thymine	l c.	Uracil	d.	All of the above
-	Cytosine	10.   Injimie	10.	Ciuch	1 4. 1	7 MI OI WIO GOOVE
17.	Synthesis of an RNA r	<del></del>				
a.	Replication	b.   Translation	C.	Transcription	d.	Reverse transcription
18.	The accumulation of n	natter in food webs is ca	lled			
	Biological catalysis	b. Biological	c.	Pollution	d.	All of above
a.	Diological Catalysis	magnification		Tolladon	u.	All of above
19.	The zone that extends	from the splash zone of	ocean wa	ve to the low tida	l mark	e is called as
a.	Littoral zones	b. Neritic ecosystem		Lotic		Lentic
20.		temperature fluctuate wi				
a.	Grasslands	b. Tropical rain fore	sts c.	Deserts	<u>  d.</u>	Chaparral
Q. 2	. Write the precise answ	wer in the blanks provi	ded	•		0.5×20=10
. 1	. The study of geograph	hic distribution of plants	and anim	als is known as		· · · · · · · · · · · · · · · · · · ·
		ms appeared and flourish				
		e study of the structure of				
				gamsins and their	ı parıs	•
	. Ichthyology is the stu	ıdy of		•		
	5. The atomic number is					
		s the number of link individual amino aci				
(	6. Covalent bonds that I		ds in chai	ns are called		· ·
(	6. Covalent bonds that I	link individual amino aci	ds in chai	ns are called		· ·
7	5. Covalent bonds that I 7. In some instances, tw	link individual amino aci o protein chains join to ture.	ds in chai	ns are called r protein, the sha	pe of	· ·
· ·	7. In some instances, twstructs B. The membrane protein	link individual amino aci o protein chains join to a ure. ins embedded in it are ca	ds in chai form large	ns are called r protein, the sha protein	pe of v	which is called the
	5. Covalent bonds that I 7. In some instances, tw struct 8. The membrane protei 9	link individual amino aci o protein chains join to sure. ins embedded in it are ca _ are membrane bound	ds in chai form large lled organelle	ns are called r protein, the sha protein s that contains ac	pe of vs.	which is called the
\$ \$ 9	5. Covalent bonds that 1 7. In some instances, tw struct 8. The membrane protei 9. 10. In cytoplasm, at the b	link individual amino aci o protein chains join to a ure. ins embedded in it are ca are membrane bound base of each cilium or fla	ds in chair form large llled organelle gellum lie	proteins that contains aces a short, cylindr	pe of vs. s. id hydical	which is called the
\$ \$ \$ \$ 1	5. Covalent bonds that I 7. In some instances, twstructs 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for	link individual amino aci o protein chains join to a ure. ins embedded in it are ca are membrane bound base of each cilium or fla most of the enzymes is u	ds in chair form large alled organelle gellum lie isually be	protein, the shape protein protein s that contains aces a short, cylindraween	pe of vs. s. id hydical	which is called the
\$ \$ \$ \$ 1	5. Covalent bonds that I 7. In some instances, twstructs 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for	link individual amino aci o protein chains join to a ure. ins embedded in it are ca are membrane bound base of each cilium or fla	ds in chair form large alled organelle gellum lie isually be	protein, the shape protein protein s that contains aces a short, cylindraween	pe of vs. s. id hydical	which is called the
\$ \$ \$ \$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5. Covalent bonds that 1 7. In some instances, tw struct 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for 12. The major energy cur	link individual amino aci o protein chains join to a ure. ins embedded in it are ca are membrane bound base of each cilium or fla most of the enzymes is u	ds in chair form large alled organelle gellum lies usually be eotides ca	protein, the share proteins s that contains aces a short, cylindrateween	pe of vs.  s.  id hydical	which is called the
\$ \$ \$ \$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5. Covalent bonds that I 7. In some instances, tw struct 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for 12. The major energy cur 13. In cellular respiration	ink individual amino aci to protein chains join to the ture.  ins embedded in it are ca are membrane bound to be ach cilium or flat most of the enzymes is to trency of all cells is nucles the two molecules of Fa	ds in chair form large alled organelle gellum lie usually be eotides ca ADH <sub>2</sub> are	protein, the share protein, the share protein s that contains aces a short, cylindrateween lled produced in	pe of vs.	which is called the
\$ \$ \$ \$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5. Covalent bonds that I 7. In some instances, twstruct 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for 12. The major energy cur 13. In cellular respiration 14. In Mitochondria, ATI	link individual amino aci o protein chains join to a ure. ins embedded in it are ca are membrane bound base of each cilium or flat most of the enzymes is a rrency of all cells is nucl at the two molecules of F. P synthetase activity is a	ds in chair form large alled organelle gellum lie usually be eotides ca ADH2 are ssociated	protein, the share protein protein s that contains across a short, cylindrate produced in with	pe of v	which is called the
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5. Covalent bonds that I 7. In some instances, tw struct 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for 12. The major energy cur 13. In cellular respiration 14. In Mitochondria, ATI 15. The resting period be	ink individual amino aci to protein chains join to a ure. ins embedded in it are ca are membrane bound base of each cilium or flat most of the enzymes is a rrency of all cells is nucl at the two molecules of F. P synthetase activity is a streen cell divisions is k	ds in chair form large alled organelle gellum lie usually be eotides can ADH2 are ssociated nown as _	protein, the share protein, the share protein structure as a short, cylindrate ween	pe of vs. s. id hydical	which is called the
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5. Covalent bonds that I 7. In some instances, tw struct 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for 12. The major energy cur 13. In cellular respiration 14. In Mitochondria, ATI 15. The resting period be 16. In cell cycle,	link individual amino aci to protein chains join to a ure.  ins embedded in it are ca are membrane bound base of each cilium or flat most of the enzymes is a trency of all cells is nucl at the two molecules of F. P synthetase activity is a tween cell divisions is k	ds in chair form large alled organelle gellum lie usually be eotides ca ADH2 are ssociated nown as oresent the	protein, the share reprotein, the share reprotein, the share reprotein state contains across a short, cylindrative reproduced in	pe of vs. id hydical ase.	which is called the collases enzymes.
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5. Covalent bonds that I 7. In some instances, tw struct 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for 12. The major energy cur 13. In cellular respiration 14. In Mitochondria, ATI 15. The resting period be 16. In cell cycle,	ink individual amino aci to protein chains join to a ure. ins embedded in it are ca are membrane bound base of each cilium or flat most of the enzymes is a rrency of all cells is nucl at the two molecules of F. P synthetase activity is a streen cell divisions is k	ds in chair form large alled organelle gellum lie usually be eotides ca ADH2 are ssociated nown as oresent the	protein, the share reprotein, the share reprotein, the share reprotein state contains across a short, cylindrative reproduced in	pe of vs. id hydical ase.	which is called the collases enzymes.
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5. Covalent bonds that I 7. In some instances, tw structs 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for 12. The major energy cur 13. In cellular respiration 14. In Mitochondria, ATI 15. The resting period be 16. In cell cycle, 17. Genes that determine	link individual amino aci yo protein chains join to a ure. ins embedded in it are ca are membrane bound base of each cilium or fla most of the enzymes is a rency of all cells is nucl a the two molecules of F. P synthetase activity is a stween cell divisions is k phase rep the expression of a part	ds in chair form large alled organelle gellum lie usually be eotides can ADH2 are ssociated nown as oresent the icular train	protein, the share reprotein, the share reprotein, the share reproteins at that contains acts a short, cylindrate reproduced in with rearly growth phase can exist in alternal	pe of vs. id hydical ase.	which is called the collases enzymes.
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5. Covalent bonds that I 7. In some instances, tw structs 8. The membrane protei 9. 10. In cytoplasm, at the b 11. The optimum pH for 12. The major energy cur 13. In cellular respiration 14. In Mitochondria, ATI 15. The resting period be 16. In cell cycle, 17. Genes that determine	link individual amino aci to protein chains join to a ure.  ins embedded in it are ca are membrane bound base of each cilium or flat most of the enzymes is a trency of all cells is nucl at the two molecules of F. P synthetase activity is a tween cell divisions is k	ds in chair form large alled organelle gellum lie usually be eotides can ADH2 are ssociated nown as oresent the icular train	protein, the share reprotein, the share reprotein, the share reproteins at that contains acts a short, cylindrate reproduced in with rearly growth phase can exist in alternal	pe of vs. id hydical ase.	which is called the collases enzymes.

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Part – I A/2016 Examination:- B.A./B.Sc.

Roll No. ....

Subject: Zoology-I

PAPER: B (Invertebrates Diversity)

TIME ALLOWED: 2 hrs. MAX. MARKS: 15

Attempt this Paper on Separate Answer Sheet provided.

### <u>PART-II</u> SUBJECTIVE PORTION

#### O.3. Give brief answer to any eight of the followings:

1x10=10

- 1. Write down characters of Phylum Apicomplexa.
- 2. What is process of budding in Protozoan?
- 3. What is Gametogony?
- 4. What is function of Lobopodia?
- 5. What are characters of class Calcarea?
- 6. What do know about reproduction class Anthozoa?
- 7. Describe conjugation in paramecium.
- 8. What is proglottid?
- 9. What is Corocidium?
- 10. Write characters of Beef tapeworm.
- Q.4 Write note on any one of the following two questions (5)
  - a. Euglena
- b. Obelia



#### Part - I A/2016 Examination: - B.A./B.Sc.

Subject: Zoology-I

PAPER: B (Invertebrates Diversity)

TIME ALLOWED: 1 h MAX. MARKS: 20

Roll No.

Attempt Part - I on the question sheet and Part - II on the Answer Sheet Provided.

IMPORTANT NOTE: Attempt this part in the given time of 1 hour and handover to the Centre Superintendent. Who will provide you answer sheet for Part - II.

#### PART-I **OBJECTIVE PORTION**

Q.1. Tick ( ) the correct option from the MCQs given below:

1/2x 20=10

- 1. The study of the kind and diversity of organism and evolutionary relationship among them is called:
  - a. Classification
- b. Systematics
- c. Arrangement
- d. Taxonomy

- 2. Eubacteria is:
  - a. False bacteriab. True bacteria c. multicellular organism d. unicellular organism
- 3. In diploblastic organization the body parts are organized into layers derived from:

  - a. Two embryonic layers b. Three embryonic layers c. Four embryonic layers

- d. (both a & b)
- 4. Groups of organism believed to have had separate origin are said to be:
  - a. Polyphyletic b. Monophyletic c. Triphyletic. d. diphyletic
- Mutualism is symbiotic relationship in which both species:
  - a. Benefit
- b. Lose
- c. Harmed.
- d. damaged
- 6. Trypanosoma brucci belong to class:
  - a. Zoomastigophora b. Phytomastigophora c. Lobosea d. Sporozoea
- 7. The phylum Platyhelmintes contain over:
  - a. 20,000 species b. 25,000 species c. 30,000 species. d. 40,000 species
- 8. Diphyllobothrium latum has scolex that act as:
  - a. holdfast
    - b. organ of movement c. food intake d. organ of attachment
- Phylum Mollusca include nearly:
- a. 200,000 living species. b. 100,000 living species. c. 150, 000 living species.
  - d. 250,000 living species
- 10. The two convex halves of the shell are called:
  - a. Parts
- b. Valves
- c. Portions. d. sections
- 11. Octopuses are more:
- a. Sedentary animals b. Active animals c. Slow moving animals
- 12. Members of class polychaeta are mostly:
  - a. Marine
- b. Freshwater
- c. Saltwater d. (both a & b)
- 13. Members of class Echinoidea live in
  - a. Marine
- b. Freshwater c. Spring water
- d. Terrestrial condition
- 14. Class Holothuridea have approximately:
  - a. 1500 species
    - b. 1600 species
- c.1700 species
- d. 1800 species
- 15. Honey Bee have a social organization consisting of:
  - a. Three castes b. two castes d. one caste. D. No caste

16. Centepedes are fast moving:	
a. Predators b. Prey C. Host d. Parasite	
17. Brine shrimp live in:	
a. salt water b. pond water c. River water d. Spring water	
18. The outer layer of exoskeleton of Arthopod is called:	٠
a Epicutile b. Procutile c. chitin d. Epidermis	
19. Body of annelids is:	
a. worm like b. cylindrical c. flat d. round	
20. Cuttle fish and nautili feed on small invertebrate on:	
a. ocean floor b. Pond bottom c. in running water d. River bed	
Q.2 Fill in the blanks 1/2x20=10	
1. Leech belong to class	
2. An external jointed Skelton is called asoror	
3. Horseshoe crab belongs to class	
4. The lobsters belong to the largest crustacean order	
5. Each kind of individual in an insect colony is called a	
6. Sea urchin is specialized for living in	
7. Zoologist who specializes in study of protozoa are called	
8. Amoeba proteus belong to super class	
9. Ciliates reproduce sexually by	
10. Physalia is member of class	
11. The gastrodermis of all Cnidarians lines a blind ending called	
12. Turbellarians are the first group ofsymmetrical animals	
13. Monogeneans havegeneration in their life cycle.	
14. Schistosomes are also called	
15. The cuticle or lorica in rotifer providesand is the main supporative organs.	
16. The body surface of Kinorhynch is devoid of and is composed of zonites.	
17. Enterobicus vermicularis is also called	
18. The medusa is dioecious and	
19. Ciliates reproduce asexually by	
<ol> <li>Volvox is a colonial flagellates consisting of up tocells embedded in a spherical gelatinous matrix.</li> </ol>	



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Roll No.

Subject: Zoology-I

PAPER: A (Principles in Animal Life)

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Attempt this Paper on Separate Answer Sheet provided.

## Part -II (Subjective Type)

### Attempt any THREE questions of the Following:

3+3+3

- Q. 3. Attempt any three questions out of following
  - a. Write a note on Ribosomes.
  - b. What are multiple alleles. Write a note.
  - c. Describe interspecific interaction with reference to herbivory and predation.
  - d. Describe the fluid mosaic model of plasma membrane.
  - e. Write a note on cofactors and coenzymes

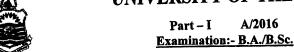
Part-III

### Attempt any ONE question:

Q.4 Explain the structure of Eukaryotic chromosome

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Q.5 Give a detailed account of cytoskeleton



Subject: Zoology-I PAPER: A (Principles in Animal Life) TIME ALLOWED: 1 hr. MAX. MARKS: 20

NOTE: 1. Cutting and overwriting is not allowed in objective part (Part-I)

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## Part -I

### For Part-I Time Allowed: 1hr & Max. Marks: 20 Q. 1. Multiple choice questions (Tick mark the right answer) 0.5×20=10

1.	Acidic solutions have	a pH								
a.	Equal to 7	b.	Less than seven		c.	More than seven		d.	Non	e of the above
2.	The fluid systems of m Such substances are ca		nimals contain chemi	cal s	ubst	ances that hel	p re	gulat	e the acid	-base balance.
a.	Buffers	b.	Isotonic	c.	Ну	potonic d	l.	hype	ertonic	
	741									
3.	Organic molecules tha	t con	tain only carbon and l	nydr	ogen	are known as	S			
a.	Carbohydrates	b.	Proteins		c.	Lipids		d.	hyd	rocarbons
٠.	•									
4.	Fluid mosaic model of	plas	ma membrane contain	ıs pr	otein	s and				
a.	Phospholipids	b.	Steroids		c.	Lipases		d.	Pro	teases
5.	Which mode of transpo	ort a	cross the membrane no	eeds	ener					
a.	. Osmosis b. Active transport									
c.	Diffusion				d.	Passive tra	ansp	ort		
6.	Blood is a connective t	issu	e in which plasma sus	pend						
a.	RBC	b.	WBC	c.	Pla	atelets d	<u>l.</u>	All	of above	
7.	The functional unit of	an ai	nimal's body made up	of n	nore	than one type	of	tissue	s is	
a.	Organism			b.		gan				
c.	Species			d.	M	olecule				
8.	A plant eating animal i	s				•	•		•	
a.	Producer	b.	Secondary consumer	c.	Pri	mary consum	er	d.	Tertiary c	onsumer
						T				
9.	The optimal pH for per									
a.	3	b	2	c.	4			d.	7	
10										
10.	In energy releasing pha			y A'I	Ps a		ron	one		
a.	2	b.	38			c. 4			d.	36
11.	During cell division the								<del></del>	
a.	Mitosis	b.	Cytokinesis	C.	Cy	tokines d	$\perp$	Cyto	kinins	
12.	A specific DNA sequer		of about 220 nucleotid	es th	at ha	ns a specitic lo	ocat	ion o	n any give	en
	chromosomes is known		0-4		T =				1.5	,
a.	Centromere	b.	Centrosomes	c.	Ce	ntriole		<u>d.</u>	Kinetoc	hore
12 1	When the between			- C1	41- 1			•		
13.	When the heterozygous						1t 1s			, . ,
a.	Dominance	b.	Codominance	c.	MU	ltiple alleles		d.	Monoh	brid cross

14.	Chromosomes that are	alik	e and are no	t involve	d in se	x d	etermination are	kno	wn as
a.	X chromosome	b.	Y chromo	some	c.	A	utosomes	d.	Sex chromosomes
15			1. 1.1.1.						
15.	Hemizygous is a cond Females have 1 gene	T	Females h	2			alaa haasa 2	1	116-116
a.	for a trait	b.	genes for a		c.		ales have 2 nes for a trait	d.	Males have 1 gene for
	1201 W WAIT		gones for e	· trait		ge	nes for a traft		a trait
16.	Which of the followin	g ref	ers to pyrim	idines					
a.	Cytosine	b.	Thymine		c		Uracil	d.	All of the above
17.	Synthesis of an RNA								
<b>a</b> .	Replication	b.	Translation	<u>1</u>	C	<u>.                                    </u>	Transcription	d.	Reverse transcription
18.	The accumulation of n	atte	in food we	be in calle	.d				
			Biological		<u>u</u>				<u> </u>
a.	Biological catalysis	b.	magnificat		C	•	Pollution	d.	All of above
								<u> </u>	,
19.	The zone that extends	from	the splash 2	one of oc	ean w	ave	to the low tidal		
a.	Littoral zones	b.	Neritic eco	system	C.	•	Lotic	d.	Lentic
20.	In which ecosystems, t		motumo fluot		1. 1:	1	1 1 1 1 .		
a.	Grasslands	Ъ	Tropical ra	in forests	iy, nig	gn c		T-2	
							Descris	d.	Chaparral
	Write the precise answ			_					0.5×20=10
1.	The study of geograpl	nic di	stribution o	f plants aı	nd anii	mal	s is known as		
2.	Multicellular organisr	ns ap	peared and	flourished	l in		era.		
3.								narte	•
4	Ichthyology is the stud					лg	ansins and then	para	•
_									
5.									
6.	Covalent bonds that li	nk in	dividual am	ino acids	in cha	ins	are called		•
7.	In some instances, two								
	structu				8	, ]	protein, ine briup	01	villon in online the
8.	The membrane protein								
9.		_ are	membrane	bound or	ganell	es t	hat contains acid	l hyd	rolases enzymes.
10	. In cytoplasm, at the ba								
									•
	. The optimum pH for r								
12	. The major energy curr	ency	of all cells	is nucleot	ides ca	alle	d		
13	. In cellular respiration	the ty	vo molecule	s of FAD	H <sub>2</sub> are	pr	oduced in		•
	. In Mitochondria, ATP								
									<del></del> ·
	. The resting period bet								
16	. In cell cycle,		ph	ase repres	ent th	e e	arly growth phas	e.	
17	. Genes that determine t	he ex	pression of	a particul	ar trai	t ca	an exist in alterna	ative	forms called
			•	-			•		
1 2	The unit of inharitance	050	nollad						
	. The unit of inheritance					—			
19	. Descent with modifica								11. 11
20	· <del></del>	ol	otain nutritio	n from in	organ	ic 1	naterials and an	ener	gy source.
		-	**		•				



#### A/2016 Part - I Examination: - B.A./B.Sc.

Subject: Zoology-I PAPER: B (Invertebrates Diversity) TIME ALLOWED: 1 hr

MAX. MARKS: 20

Attempt Part - I on the question sheet and Part - II on the Answer Sheet Provided. IMPORTANT NOTE: Attempt this part in the given time of 1 hour and handover to the Centre Superintendent. Who will provide you answer sheet for Part - II.

### PART-I OBJECTIVE PORTION

Q.1. Tick ( ) the correct option from the  $MCQ_S$  given below:

1/2x 20=10

- 1. The study of the kind and diversity of organism and evolutionary relationship among them is called:
  - a. Classification
- b. Systematics
- c. Arrangement

d. Taxonomy

Roll No.

- 2. Eubacteria is:
  - a. False bacteriab. True bacteria c. multicellular organism d. unicellular organism
- 3. In diploblastic organization the body parts are organized into layers derived from:
- c. Four embryonic layers a. Two embryonic layers b. Three embryonic layers
  - d. (both a & b)
- 4. Groups of organism believed to have had separate origin are said to be:
  - a. Polyphyletic b. Monophyletic
- c. Triphyletic. d. diphyletic
- 5. Mutualism is symbiotic relationship in which both species:
  - a. Benefit
- b. Lose
- c. Harmed.
- d. damaged
- 6. Trypanosoma brucci belong to class:
  - a. Zoomastigophora b. Phytomastigophora c. Lobosea d. Sporozoea
- 7. The phylum Platyhelmintes contain over:
  - a. 20,000 species b. 25,000 species c. 30,000 species. d. 40,000 species
- 8. Diphyllobothrium latum has scolex that act as:
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- b. organ of movement c. food intake d. organ of attachment
- 9. Phylum Mollusca include nearly:
- a. 200,000 living species. b. 100,000 living species. c. 150, 000 living species.
  - d. 250,000 living species
- 10. The two convex halves of the shell are called:
  - a. Parts
- b. Valves
- c. Portions. d. sections
- 11. Octopuses are more:
- a. Sedentary animals b. Active animals c. Slow moving animals
- 12. Members of class polychaeta are mostly:
  - a. Marine
- b. Freshwater
- c. Saltwater d. (both a & b)
- 13. Members of class Echinoidea live in
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- b. Freshwater c. Spring water
- d. Terrestrial condition
- 14. Class Holothuridea have approximately:
  - a. 1500 species
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- c.1700 species d. 1800 species
- 15. Honey Bee have a social organization consisting of:
  - a. Three castes b. two castes d. one caste. D. No caste

16. Centepedes are fast moving:
a. Predators b. Prey C. Host d. Parasite
17. Brine shrimp live in:
a. salt water b. pond water c. River water d. Saring
18. The outer layer of exoskeleton of Arthopod is called:
a. Epicutile b. Procutile
19. Body of annelids is:
a. worm like b. cylindrical c. flat d. round
20. Cuttle fish and nautili feed on small invertebrate on:
a. ocean floor b. Pond hottom
c. in running water d. River bed
0.3 70%
Q.2 Fill in the blanks 1/2x20=10
1. Leech belong to class
2. An external jointed Skelton is called asor
of thouseshoe crab belongs to class
4. The lobsters belong to the largest crustacean order
and of individual in an insect colony is called a
the distribution is specialized for living in
·· Loologist who specializes in study of protozog are collect
protests belong to super class
on dies reproduce sexually by
10. Physalia is member of class
11. The gastrodermis of all Chidarians lines a blind and
ate the first grown of
September 1 to 1 t
are also called
13. The cuticle or lorica in rotifer provides
The state of the s
to to discontinuous called
18. The medusa is dioecious and
19. Ciliates reproduce asexually by
<ol> <li>Volvox is a colonial flagellates consisting of up tocells embedded in a spherical gelatinous matrix.</li> </ol>



Part – I A/2016 Examination:- B.A./B.Sc.

Roll No. .....

Subject: Zoology-I

PAPER: A (Principles in Animal Life)

TIME ALLOWED: 2 hrs. MAX. MARKS: 15

Attempt this Paper on Separate Answer Sheet provided.

# Part -II (Subjective Type)

### Attempt any THREE questions of the Following:

3+3+3

- Q. 3. Attempt any three questions out of following
  - a. Write a note on Ribosomes.
  - b. What are multiple alleles. Write a note.
  - c. Describe interspecific interaction with reference to herbivory and predation.
  - d. Describe the fluid mosaic model of plasma membrane.
  - e. Write a note on cofactors and coenzymes

Part -III

### Attempt any ONE question:

- Q.4 Explain the structure of Eukaryotic chromosome
- Q.5 Give a detailed account of cytoskeleton

Roll No. .....



A/2016 Part - I Examination: - B.A./B.Sc.

Subject: Zoology-I

PAPER: A (Principles in Animal Life)

TIME ALLOWED: 1 hr. MAX. MARKS: 20

NOTE: 1. Cutting and overwriting is not allowed in objective part (Part-I)

2. In Part-I all questions are compulsory. Answer these questions on the questions sheet only.

3. Answer any three (3) questions from part - II and any one question from Part - III on separate answer sheet provided.

IMPORTANT NOTE: Attempt Part-I in the given time of 1 hour and hand over to the Centre Superintendent. The Centre Superintendent will provide you Answer sheet for Part-II and Part-III.

## Part -I

### For Part-I Time Allowed: 1hr & Max. Marks: 20 Q. 1. Multiple choice questions (Tick mark the right answer) $0.5 \times 20 = 10$

1.	Acidic solutions h	ave a pH	[.						
a.	Equal to 7	b.	. Less than seven			More than seven	d		None of the above
2.	The fluid systems Such substances ar	of most a	animals contain che	mical	subs	tances that help	regu	late the	e acid-base balance.
a.		Ъ.	Isotonic	c.	Н	ypotonic d.	h	yperton	.i.
نـــــا	Må (1)						111	yperion	IIC .
3.	Organic molecules	that con	tain only carbon an	d hvd	roger	are known as			
a.	Carbonydrates	b.	Proteins		C.	Lipids	d.		hydrocarbons
							1 4.		nyurocaroons
4.	Fluid mosaic mode	l of plas	ma membrane cont	ains p	roteir	ns and			
a.	Phospholipids	b.	Steroids		C.	Lipases	d.		Proteases
									1 Totolases
5.	Which mode of tra	asport ac	cross the membrane	needs	ener	rgy derived from	1 A T	<del>P</del>	
a.	Usmosis				b.	Active trans		-	
c.	Diffusion				d.	Passive tran		+	
							opor.		
6.	Blood is a connecti	ve tissue	in which plasma s	uspend	ds spe	ecialized			
a.	RBC	b.	WBC	C.		atelets d.	A	ll of ab	ove
						***			
7.	The functional unit	of an an	imal's body made i	up of n	nore	than one type o	ftiss	nes is	,
a.	Organism			b.		gan	LUOD	403 13	
c.	Species			d.		olecule			
8.	A plant eating anim	al is	· · · · · · · · · · · · · · · · · · ·	<u> </u>	1	<u> </u>			1
a.	Producer	b.	Secondary consumer	c.	Pri	mary consumer	d.	Tertia	ary consumer
0	TTL								
9.	The optimal pH for			on is	-,				
a.	3	b.	2	c.	4		d.	7	
10.	T			·····				-	
a.	In energy releasing	onase of	glycolysis how ma	ny AT	'Ps ar	e generated from	n on	e gluco	se molecule
a	12	b.	38			c. 4		d.	36
11.	During acti district	41 41 4							
	During cell division								
a	Mitosis	b.	Cytokinesis	c.	Cyt	okines d.	Cy	tokinin	S
12.	A specific DNA seq chromosomes is kno	ience of	about 220 nucleoti	des th	at has	s a specific loca	tion	on any	given
1.	Centromere		Centrosomes	C.	Cen	triole	d.	Vin	etochore
									ciocnore
13.	When the heterozygo	us expr	esses the phenotype	of bo	th ho	mozveotes it is	kno	W/n ac	
<u>.                                    </u>	Dominance	b. (	Codominance	c.	Mul	tiple alleles	d.		nohybrid cross
						-L mirolog	Lu.	IVIOI	iony or to cross

				•					
14.	Chromosomes that are	alik	e and are not involved	l in s	ex de	etermination are l	know	n as	
a.	X chromosome	b.	Y chromosome	c.	Αι	itosomes	d.	Sex chromosomes	
<u>u.</u>									
15.	Hemizygous is a cond	ition	in which		114	1 - 1 - 2	T	Males have 1 gene for	
a.	Females have 1 gene	b.	Females have 2	c.		ales have 2 nes for a trait	d.	a trait	
	for a trait	<u> </u>	genes for a trait	<u> </u>	gc	nes for a trait			
16.	Which of the followin	o ref	ers to pyrimidines						
a.	Cytosine		Thymine		c.	Uracil	d.	All of the above	
17.	Synthesis of an RNA					Transcription	d.	Reverse transcription	
a	Replication	b.	Translation		C.	Tanscription	u.	Reveile time	
18.	The accumulation of a	natte	er in food webs is call	ed					
		Τ.	Biological		c.	Pollution	d.	All of above	
a.	Biological catalysis	b.	magnification		U.	Tonucion			
	The zone that extends	£	- the release game of a	0000	13/03/	e to the low tidal	mar	ks is called as	
19.	Littoral zones		Neritic ecosystem	ccan	c.	Lotic	d.	Lentic	
a.									
20.	In which ecosystems,	tem	perature fluctuate wid	ely,	high			ow at night time.	
a.	Grasslands	b.	Tropical rain forest	is	c.	Deserts	d.	Chaparral	
Q. 2	. Write the precise ans	wer	in the blanks provid	led				0.5×20=10	
	1. The study of geograp	ohic	distribution of plants	and a	anima	als is known as _		·	
	2. Multicellular organis		·						
			ady of the structure of			•	r part	s.	
					10 01	Barnomio and and			
•	4. Ichthyology is the st						C:i-		
			e number of					· · · · · · · · · · · · · · · · · · ·	
	6. Covalent bonds that								
	7. In some instances, to	ио р	rotein chains join to f	orm l	large	r protein, the sha	pe of	which is called the	
	struc	ture	• • •						
	8. The membrane prote	eins (	embedded in it are cal	lled		proteins	<b>S</b> .		
			are membrane bound					drolases enzymes.	
			•						
	10. In cytoplasm, at the								
	11. The optimum pH fo							•	
•	12. The major energy co								
	13. In cellular respiration								
	14. In Mitochondria, ATP synthetase activity is associated with								
	15. The resting period b	etwe	een cell divisions is k	nowr	as _		<b></b> •		
	16. In cell cycle,		phase rep	rese	nt the	e early growth ph	ase.		
	17. Genes that determin	e the	e expression of a parti	icula	r trai	can exist in alte	rnati	ve forms called	
			-						
	18. The unit of inherita	– nce a	are called					Specifically and specifical speci	
	19. Descent with modif					_			
	20		obtain nutrition from		rgan	ic materials and	an en	ergy source.	
	~~.								

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Part – I A/2016 Examination:- B.A./B.Sc.

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Subject: Zoology-I

PAPER: B (Invertebrates Diversity)

TIME ALLOWED: 2 hrs. MAX. MARKS: 15

Attempt this Paper on Separate Answer Sheet provided.

### <u>PART-II</u> SUBJECTIVE PORTION

Q.3. Give brief answer to any eight of the followings:

1x10=10

- 1. Write down characters of Phylum Apicomplexa.
- 2. What is process of budding in Protozoan?
- 3. What is Gametogony?
- 4. What is function of Lobopodia?
- 5. What are characters of class Calcarea?
- 6. What do know about reproduction class Anthozoa?
- 7. Describe conjugation in paramecium.
- 8. What is proglottid?
- 9. What is Corocidium?
- 10. Write characters of Beef tapeworm.
- Q.4 Write note on any one of the following two questions (5)
  - a. Euglena
- b. Obelia



Part – I A/2016 Examination: - B.A./B.Sc.

Subject: Zoology-I

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TIME ALLOWED: 1 hr. MAX. MARKS: 20

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***************************************	
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1. Leech belong to class	•
2. An external jointed Skelton is called asoror	:
3. Horseshoe crab belongs to class	
4. The lobsters belong to the largest crustacean order	·
5. Each kind of individual in an insect colony is called a	
6. Sea urchin is specialized for living in	
7. Zoologist who specializes in study of protozoa are called	
8. Amoeba proteus belong to super class	
9. Ciliates reproduce sexually by	
10. Physalia is member of class	
11. The gastrodermis of all Cnidarians lines a blind ending called	
12. Turbellarians are the first group ofsymmetrical animal	als.
13. Monogeneans havegeneration in their life cycle.	
14. Schistosomes are also called	
15. The cuticle or lorica in rotifer providesand is the main supporative	e organs.
16. The body surface of Kinorhynch is devoid of and is composed of z	
17. Enterobicus vermicularis is also called	
18. The medusa is dioecious and	· · · · · · · · · · · · · · · · · · ·
19. Ciliates reproduce asexually by	
<ol> <li>Volvox is a colonial flagellates consisting of up tocells embedded spherical gelatinous matrix.</li> </ol>	l in a