



B.A. / B.Sc. Part - I
Supplementary Examination - 2017

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. Two structures that are similar because of common ancestry are _____
a. analogous
b. homologous
c. comparative
d. None of the above is correct.
2. The first part of the binomial name of an animal is the _____
a. species
b. genus
c. family
d. order
3. Which of the following does not contribute to the majority of an animal's weight?
a. oxygen
b. carbon
c. hydrogen
d. sodium
4. The key element in all organic molecules is
a. oxygen.
b. hydrogen.
c. nitrogen.
d. carbon.
5. Animal cells do not have a _____
a. centriole
b. DNA
c. cytoskeleton
d. cell wall
6. Which of the following is not a function of the cell's glycocalyx?
a. transport
b. cell-to-cell recognition
c. behavior
d. recognition
7. Energy is required for _____
a. simple diffusion
b. facilitated diffusion
c. osmosis
d. active transport
8. Because plants capture solar energy they are termed _____ consumers.
a. primary
b. secondary
c. tertiary
d. decomposing
9. A typical food chain consists of
a. primary consumers.
b. secondary consumers.
c. decomposers.
d. all of the above (a-c)
10. The end product of glycolysis is
a. glucose 6-phosphate
b. pyruvate
c. fructose 6-phosphate
d. fructose 1,6-diphosphate
11. How many ATPs are produced in glycolysis?
a. 1
b. 2
c. 3
d. 4
12. Fermentation regenerates _____ which is needed to drive glycolysis to ultimately obtain ATP.
a. FAD
b. NAD⁺
c. ADP
d. AMP

(P.T.O.)

13. Most of the cell cycle is occupied by the _____.
- a. G1 phase
b. G2 phase
c. S phase
d. interphase
14. The microtubules of the mitotic spindle are attached to the _____.
- a. kinetochore
b. centromere
c. centrosome
d. all of the above (a-c)
15. Which of the following enzymes plays a central role in the control of the cell cycle?
- a. cdc2 kinase
b. MPF
c. cyclin
d. glucose 6-phosphatase
16. A gene that hides the expression of its allele is _____.
- a. dominant
b. recessive
c. codominant
d. homozygous
17. The offspring of a monohybrid cross are _____.
- a. 1/4 homozygous and 3/4 heterozygous
b. 1/2 homozygous and 1/2 heterozygous
c. 3/4 homozygous and 1/4 heterozygous
d. all heterozygous
18. A red-eyed male is crossed with a red-eyed female whose father was white-eyed. Which of the following should be true of the offspring?
- a. all female offspring should be white-eyed and all male offspring should be red-eyed
b. all female offspring should be red-eyed and one half of the male offspring should be white-eyed
c. one half of the female offspring should be white-eyed and all of the male offspring should be white-eyed
d. all female offspring should be red-eyed and all of the male offspring should be white-eyed
19. Which of the following chromosomal rearrangements results from the flip-flopping of a central segment of a chromosome?
- a. nondisjunction
b. translocation
c. inversion
d. deletion
20. _____ involves the formation of a polypeptide chain at the _____.
- a. Transcription/nucleus
b. Transcription/ribosome
c. Translation/nucleolus
d. Translation/ribosome

Q. 2. Write the precise answer in the blanks provided

0.5×20=10

1. The centrioles arise from the _____.
2. _____ are the functional units of an animal's body.
3. In an experiment, the parameter that is being measured to assess the outcome of the experiment is called the _____.
4. Lactose is made up of _____ and _____.
5. When a substrate molecule binds to an enzyme's active site, an _____ forms.
6. NAD⁺ is in its _____ form.
7. The eukaryotic cell obtains a net gain of _____ ATP molecules from the breakdown of each glucose molecule.
8. Reactions of the Krebs cycle occur in the mitochondrial _____.
9. During prophase I of meiosis, homologous chromosomes line up side-by-side in a process called _____.
10. Spermatogenesis begins with an unspecialized cell called a _____.
11. The ABO blood system is an example of _____ because the heterozygote (e.g., IAIB) expresses both alleles.
12. In recombinant DNA techniques, _____ is used to cut DNA strands prior to inserting a piece of DNA into a plasmid.
13. According to Charles Darwin, evolution is _____.
14. The formation of new species from an ancestral species in response to the opening of new habitats is _____.
15. The explanation of why fossils of horses occur in South America even though there were no horses in South America at the time America was settled is found in the study called _____.
16. The study of genetic events that occur in gene pools is called _____.
17. Two male deer are equally adapted to their environment. One of these bucks is in the wrong place at the wrong time and is shot by a hunter. The other buck reproduces, passing its genes on to following generations. This account is an example of _____.
18. The study of the evolution of social behavior is _____.
19. A mouse improves its ability to negotiate a maze with repeated trials. This mouse behavior illustrates _____.
20. Aggressive behavior of one animal toward another of the same species is called _____.



UNIVERSITY OF THE PUNJAB

B.A. / B.Sc. Part - I
Supplementary Examination - 2017

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
- Write a note on acoustic communication
 - Describe parasitism.
 - What are sex influenced traits?
 - Write a note on the transcription.
 - Describe incomplete dominance and codominance.

Part -III

Attempt any ONE question:

- Q.4 Give a comprehensive account of movement across the membrane **6**
- Q.5 Describe how the cell cycle is controlled. **6**



B.A. / B.Sc. Part – I
Supplementary Examination - 2017

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 MCQs given below: $\frac{1}{2} \times 20 = 10$

1. The medusa is sexually
a. Monoecious b. dioecious c. both a & b. d. Asexual
2. The food of most cnidarians consist of
a. insects b. small crustaceans c. worms. D. small shell
3. Class turbullaria has about
a. 4000 species b. 3000 species c 2000 species d. 1000 species
4. Characters that have arisen since common ancestry with the groups are called:
a. Derived characters. B. Acquired characters c. Inherited characters
d. learned characters
5. Protostomes have top shaped larva called:
a. Trochophore larva b. Dipleurula larva c. Miracidium. D. oncosphere
6. Most Turbullarians have
a. one eye spot b. two eye spots c. No eye spot d. four eye spots
7. In parasitism an organism lives in or on a second organism called:
a. Host b. Friend c. Companion d. enemy
8. Liver fluke eggs hatch into
a. Redia b. miracidium c. cercaria d.metacercaria
9. Foraminiferans are primarily group of Amoeba which is:
a. Marine b. Freshwater c. both a & b d. Terrestrial
10. The cercaria of schistosoma fluke is
a. sessile b. Swim actively c. Sluggish d. weak
11. The cercaria of *Fasciola hepatica* is about:
a. 0.5mm long b. 0.9mm long c.1.5mm long d. 2.0 mm long
12. One of the intermediate host of schistosoma fluke is
a. Insect b. Aquatic snail c. Fly d. Mosquito
13. A tapeworm, *Taenia solium* is also called:
a. Pork tapeworm b. Fish Tapeworm c. Human tapeworm
d. bird tapeworm
14. Class bivalvia belongs to Phylum:
a. Mullusca b. Platyhelminthes c. Rotifera d. Nematoda
15. Glochidium is modified veliger stage which is parasitic on:
a. Frog b. Fish c. Man d. bird

(P.T.O.)

16. Cephalopods unlike other mollusks have a:
- Open circulation system
 - closed circulation system
 - One way circulation system
 - Two way circulatory system
17. Round worm species number range from
- 10000-15000
 - 16000—500000
 - 20000- 600000
 - 25000—650000
18. Polychaetes have:
- closed circulatory system
 - open circulatory system
 - Two way circulatory system
 - one way circulatory system
19. One of the reasons of insect success is their
- High reproductive potential
 - Flight
 - Skeleton
 - being coloured
20. Excretory organs of the Crayfish are called
- antennal gland
 - Midgut gland
 - Carapace
 - Branchial chamber

Q.2 Fill in the blanks

1/2x20= 10

- Rotifers are small animals ---mm to ---mm in length
- All leeches reproduce sexually and are -----.
- Tanea solium* is also called -----tapeworm
- The Molting process in arthropods is called-----.
- All spiders belong to class-----.
- Six hooked larva in tapeworm is called -----
- Digenean requires -----different hosts to complete their life cycle.
- Ciliates reproduce sexually by -----
- About -----species are described in phylum nematoda
- Members of the class Branchiopoda primarily live in -----.
- The polyp is usually asexual and -----
- Euglena is a freshwater organism and belongs to class-----
- Necator Americans* is also called as new world ----
- Sea lilies belong to class -----.
- Numerical taxonomy emerged during the years----- to -----.
- Four species of -----are the most important human malarial parasites.
- There are large number of different species of ciliates also inhabits the rumen of many-----
- The members of cnidarians possess -----tissue level organization.
- Echinoderms exhibit----- symmetry.
- is networks of fine tubules that run the length of the Turbellarian.



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Attempt this Paper on Separate Answer Sheet provided.

PART-II
SUBJECTIVE PORTION

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

1x10=10

1. . What is multiple fission?
2. What is function of Filopodia?
3. Write about reproduction in Euglena?
4. Write characteristics of class Demospongiae.
5. What are sea anemones?
6. Give character of class Cubozoa.
7. 1. Write two characters of class copepod.
8. What are characters of Phylum Ciliphora?
9. Define Schizogony?
10. What is Botherium?
11. Describe Broad Fish Tapeworm?
12. What are gravid progolttids?.

Q.4 a) Distinguish following groups of invertebrate from each other:

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(a) Tapeworm (b) Euglena