

Shivaji University, Kolhapur
Question Bank for Mar 2022 (Summer) Examination
Subject Code: 81686 Subject Name: Zoology Paper XIII.

Q.1. Multiple Choice Questions

1. The process of realising the ripe female gamete from the ovary is called
a) Parturation b) Ovulation c) Fertilization d) Implantation
2. The process of Conservation of spermatids into sperms is
a) Spermiogenesis b) Spermatogenesis c) Gametogenesis d) Metamorphosis
3. This helps in the penetration of the egg by the sperm
a) fertilization membrane b) antifertilizin c) sperm lysin d) fertilizi
4. The region of frog blastula on the dorsal side near grey crescent in the equatorial belt will develop as
a) Fore gut b) Brain c) Notochord d) somite
5. Blastopore in frog can be seen in stage.
a) Cleavage b) Morula c) Blastula d) Gastrula
6. White yolk beneath the blastodisc in chick egg is
a) Latebra b) Nucleus of pender
c) Neck of latebra d) Germinal disc
7. The center of Hensen's node has a funnel shaped depression is called....
a) Primitive pit b) Primitive groove
c) Primitive fold d) Primitive fold
8. Zonary placenta, villi are arranged one or more circles, found in -----
a) Sheep b) Camel c) Dog d) Pig

Q.2. Long Answer Questions (Attempt any two)

1. What is Cleavage? Explain the types of cleavage seen in the eggs.
2. Describe the process of Gastrulation in Frog.
3. Describe the process of development of heart of chick embryo upto 72 hrs of incubation.

Q.3. Shorts Notes (Attempt any Four out of six)

1. Capacitation of sperm
2. Fate map of frog
3. Development of primitive streak
4. Area opaca and area pellucida
5. Yolk sac placenta
6. Significance of Placenta.

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Q.1. Multiple Choice Questions

1. The breakage of the membrane surrounding the acrosome in mammalian sperm is
a) Activation b) Cavitation c) Agglutination d) Capacitation
2. are called as sperm mother cells
a) Spermatids b) Spermatogonia
c) Spermatocyte d) Primordial Germ Cells
3. Heart and major blood vessels are derived from.....
a) Endoderm b) somatic mesoderm
c) Splanchnic mesoderm d) Intermediate mesoderm
4. Blastopore in frog can be seen in stage.
a) Cleavage b) Morula c) Blastula d) Gastrula
5. hormone plays important role in metamorphosis of frog.
a) Epinephrin b) Norepinephrine
c) Thyroxine d) Growth hormone
6. White yolk beneath the blastodisc in chick egg is
a) Latebra b) Nucleus of pender
c) Neck of latebra d) Germinal disc
7. In eutherian mammals contains placenta.
a) Chorio-Allantois b) Yolk-sac c) Both of these d) None of these
8. The larval stage of frog is called as
a) Tadpole b) Caterpillar c) Larva d) None of this

Q.2. Long Answer Questions (Attempt any Two).

1. Describe Fertilization and give the significance of fertilization
2. Describe the structure of blastula in a frog and the fate map of the frog blastula
3. What is Foetal membrane? Describe their formation and function in chick.

Q.3. Short Notes (Attempt any Four).

1. Structure of Mature Egg of Bird.
2. Capacitation of sperm.
3. Fertilization in frog.
4. Hormonal control of frog metamorphosis.
5. What is vitellogenesis? Explain its process in chick.
6. Yolk sac placenta.

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Q.1. Multiple Choice Questions

1. Eggs containing enormous quantities of yolk are called as
a) Microlecithal egg b) Mesolecithal egg c) Macrolecithal egg d) Alecithal egg
2. Sperm(s) acrosomes has
a) Hyaluronic acid & proacrosine b) Hyaluronic acid & fertilizin
c) Hyaluronidase & proacrosin d) Fertilizin & proacrosin
3. Sperm of frog is a haploid cell.
a) Flagellated b) Amoeboid c) Ciliated d) Immotile
4. Area of ectoderm near presumptive chorda mesoderm is presumptive in frog fate map.
a) Notochord b) Prechordal plate c) Neuroectoderm d) Fore gut
5. Heart and major blood vessels are derived from.....
a) Endoderm b) somatic mesoderm
c) Splanchnic mesoderm d) Intermediate mesoderm
6. hormone plays important role in metamorphosis of frog
a) Epinephrin b) Norepinephrine
c) Thyroxine d) Growth hormone
7. At the time of laying the chick embryo is in
a) 2 cell stage b) Early blastula stage
c) Morula stage d) Early gastrula stage
8. The invagination & involution are examples of-----
a) Mesoboly b) Epiboly c) Emboly d) None of these

Q.2. Long Answers Question (Attempt Any Two).

1. Explain the Mechanism of Fertilization?
2. Describe the process of neurulation in frogs.
3. Describe the development of notogenesis and neurogenesis in chick embryo.

Q. 3. Short Notes (Attempt any Four)

1. Eggs based on distribution of Yolk in cytoplasm.
2. Amphimixis.
3. Cleavage cell divisions in frog.
4. Morphological changes during Frog metamorphosis.
5. Development of primitive streak.
6. Significance of placenta.

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Q.1 Multiple Choice Questions

1. Germ cells in mammalian gonads are produced by
a) Only mitosis b) Only meiosis
c) Mitosis & meiosis both d) Without cell division
2. Acrosomes of sperm is formed from
a) Nucleus of spermatid b) Mitochondria of spermatid
c) Golgi complex of spermatid d) Centrosomes of spermatid
3. Egg of frog is of type.
a) Isolecithal and mesolecithal b) Telolecithal and mesolecithal
c) Telolecithal and microlecithal d) Isolecithal and megalecithal.
4. Gastrulation in frog begins at
a) Grey crescent b) Below the grey crescent
c) Animal pole d) Vegetal pole
5. At the broad end of the shell membrane enclose
a) Excretory space b) Circulatory space
c) Air space d) Nutritive space
6. Heart and major blood vessels are derived from.....
a) Endoderm b) Somatic mesoderm
c) Splanchnic mesoderm d) Intermediate mesoderm
7. Body of chick embryo proper is formed by.....
a) Area opeca b) Nucleus of pender
c) Latebra d) Area pellucida
8. In chick the incubation period is.....
a) 14 days b) 21 days
c) 28 days d) 35 days

Q.2. Long Answers Questions (Attempt any Two)

1. Describe Fertilization and give the significance of fertilization.
2. Describe the process of neurulation in frogs.
3. What is gastrula? Describe the process of gastrulation in chick.

Q.3. Shorts Notes (Attempt any Four)

1. Types of Cleavages
2. External Fertilization

3. Blastula of frog
4. Development of primitive streak
5. Allantois and its significance
6. Extra embryonic membrane – Amnion and chorion

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Q. I. Multiple Choice Questions.

1. Non-cleidoic eggs are found in the
a) Pisces b) Amphibians c) Reptiles d) Aves
2. Germ cells in mammalian gonads are produced by
a) Only mitosis b) Only meiosis
c) Mitosis & meiosis both d) Without cell division
3. Blastula of frog is called as
a) Coeloblastula b) Blastocyst c) Disco blastula d) None of this
4. After entry of sperm into egg, the Vitelline membrane is converted into
a) Plasma membrane c) Zona pellicuda
b) Fertilization membrane d) Zona radiata
5. The invagination & involution are examples of
a) Mesoboly b) Epiboly c) Emboly d) None of this
6. Blastodisc is united with the yolk mass by.....
a) Epiblast b) Endoblast c) Periblast d) Mesoblast
7. Implantation takes place duration
a) 2 to 8 days b) 4 to 8 days c) 5 to 10 days d) 7 to 14 days
8. In sheep placenta is present.
a) Endotheliochorial b) Syndesmochorial c) Haemochorial d) Epitheliochorial

Q. II. Long Answer Questions (Any Two).

1. Define Fertilization and explain the process of internal fertilization.
2. Describe the fate of three germ layers in the frog.
3. Describe chick development up to development of primitive streak.

Q. III. Short Answer Questions (Any Four)

1. Types of Cleavages.
2. Hormonal control of frog metamorphosis.
3. Egg of Frog.
4. What is vitellogenesis? Explain its process in chick.
5. Development of hypoblast in chick embryo.
6. Symptoms of implantation
