

## Guidelines for the practical examination

### **Distribution of Marks (Total Marks: 30)**

*First Examination* 10

*Second Examination* 10

*Assessment of student's activity (Working in the class, Attendance, behavior in the class etc)* 10

### **First Examination: There will be two questions in all**

1. Select any 8 slides from the collections you have shown to the students during different exercises. Ask them to identify and write one important character of it. (8 marks).
2. Provide to each student a diagram (Alimentary or Food canal, T.S. through Oesophagus, T.S. through Stomach, T.S. through Liver, T.S. through Testis, L.S. of Ovary) to write the name of pointed parts. (2 Marks).

### **Second Examination: There will be three questions in all**

1. First question from blood group. You will prepare four different slides showing the four blood groups. Students will be asked to write the phenotype and genotype of any one of the slide. (1 Marks)
2. Students will be asked to label the provided diagram like digestive system, reproductive system (male and female), venous system and arterial system or Brain. (do not disclose it to the students). (2 Marks)
3. The students will dissect the rat showing all systems. (2 Marks)
4. You will ask six questions in the dissected rat, (one endocrine gland, one major organ, one artery, one vein, one from reproductive system, two from digestive system like this). For five right answers full marks will be given (5). Cut 1 mark for each subsequent wrong answer.

All demonstrators are requested to strictly follow the pattern of examinations. Thank you for your cooperation.

## Syllabus-Practical (Zoo-109)

Weeks	Description of exercise
1	<b>Microscope:</b> To acquaint the student with the use and care of microscope. Preparation of slides to observe the animal (Human cheek cell) and plant cells (Onion Cell).
2	<b>Cell Structure:</b> To familiarize the students with the general structure of the cell seen through the light microscope and acquaint them with some of the variations existing among cells (Size and shape). (Eukaryotes: Paramecium, Trypanosoma, Blood cell, Squamous epithelial cell, Columnar epithelial cell; Prokaryotes: Bacteria)
3	Type of tissue (1) Epithelial tissue (2). Muscular tissue (Striated muscle, Cardiac muscle). (3). Connective tissue ( Areolar connective tissue; Hyaline cartilage)
4	Nervous tissue (Neuron and T. S. of Spinal cord); T. S. of organs (T. S. of the artery, T. S. of the vein).
5	Detail structure of: T.S. in the esophagus of rabbit, T.S. in the stomach of rabbit, T.S. in the liver of rabbit.
6	Detail histology of: T.S. of the testis of rabbit. T.S. of the ovary of rabbit, L.S. of the kidney of rabbit.
7	<b>Mitosis:</b> To aid the students in recognizing chromosomes and various stages in mitotic division.
8	<b>Meiosis:</b> To study meiosis and compare the events of mitosis and meiosis with special emphasis on chromosome number and to explain the necessity for meiotic division in sexually reproducing organisms.
9	<b>FIRST EXAMINATION</b>
<b>Dissection of the rat and blood groups</b>	
10	To introduce the student to blood group serology in determining the ABO and Rhesus blood group systems. Determine the genotypes of different blood groups. Give some examples of inheritance.
11	External features and general viscera with special reference to alimentary canal.
12	The reproductive system (male and female) including supporting glands and endocrine glands.
13	Nervous system (Brain and Brachial and lumbosacral plexus) with endocrine glands
14	<b>SECOND EXAMINATION</b>

## Plan for practical classes of Zoo-109

First week 25-29/9/2016	Second week 2-6/10/2016	Third 9-13/10/2016
<b>Microscope</b> (Structure, function and maintenance of microscope, Human cheek and Onion cell)	<b>Structure of cell</b> (Eukaryote: Paramecium, Trypanosoma, Blood cells, Squamous and columnar epithelial cell ; Prokaryotes: Bacteria)	<b>Minor slides</b> ( Epithelial tissue: No slide; Muscular tissue: Striated muscle, cardiac muscle; Connective tissue: Areolar connective tissue and Hyaline cartilage)
<b>Fourth week</b> 16-20/10/2016	<b>Fifth week</b> 23-27/10/2016	<b>Sixth week</b> 30-3/11/2016
<b>Minor slides</b> Nervous tissue: Neuron and T.S. through spinal cord; T. S. of organs (Artery and Vein)	<b>Three major slides</b> (Oesophagus, stomach, liver)	<b>Three major slides</b> (Testis, ovary, kidney)
<b>Seventh week</b> 6-10/11/2016	<b>Eight week</b> 13-17/11/2016	<b>Ninth week</b> 20-24/11/2016
<b>Mitosis</b>	<b>Vocation</b>	<b>Meiosis</b>
<b>Tenth week</b> 27-1/12/2016	<b>Eleventh week</b> 4-8/12/2016	<b>Twelveth week</b> 11-15/12/2016
<b>First Practical examination</b>	<b>Blood Group</b> Different blood groups and example of law of segregation (TT , Tt and tt)	<b>Dissection</b> External features and general viscera of rat
<b>Thirteenth week</b> 18-22/12/2016	<b>Fourteenth week</b> 25-29/12/2016	<b>Fifteenth week</b> 1-5/1/2017
<b>Dissection</b> Reproductive system (male and female)	<b>Dissection</b> Nervous system (Brain and Brachial and lumbosacral plexus) and endocrine glands. <b>Second practical examination</b>	<b>Second practical examination</b>

**Practical Examination (I)**  
**Course Number (Zoo-109)**

Student's Name: \_\_\_\_\_ Student's Number \_\_\_\_\_

Q.1. Identify the spots from 1 to 8 (8 marks).

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1.

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2.

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3.

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4.

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5.

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6.

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7.

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8.

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## Practical Examination (Zoo-109)

Semester..... Academic Year.....

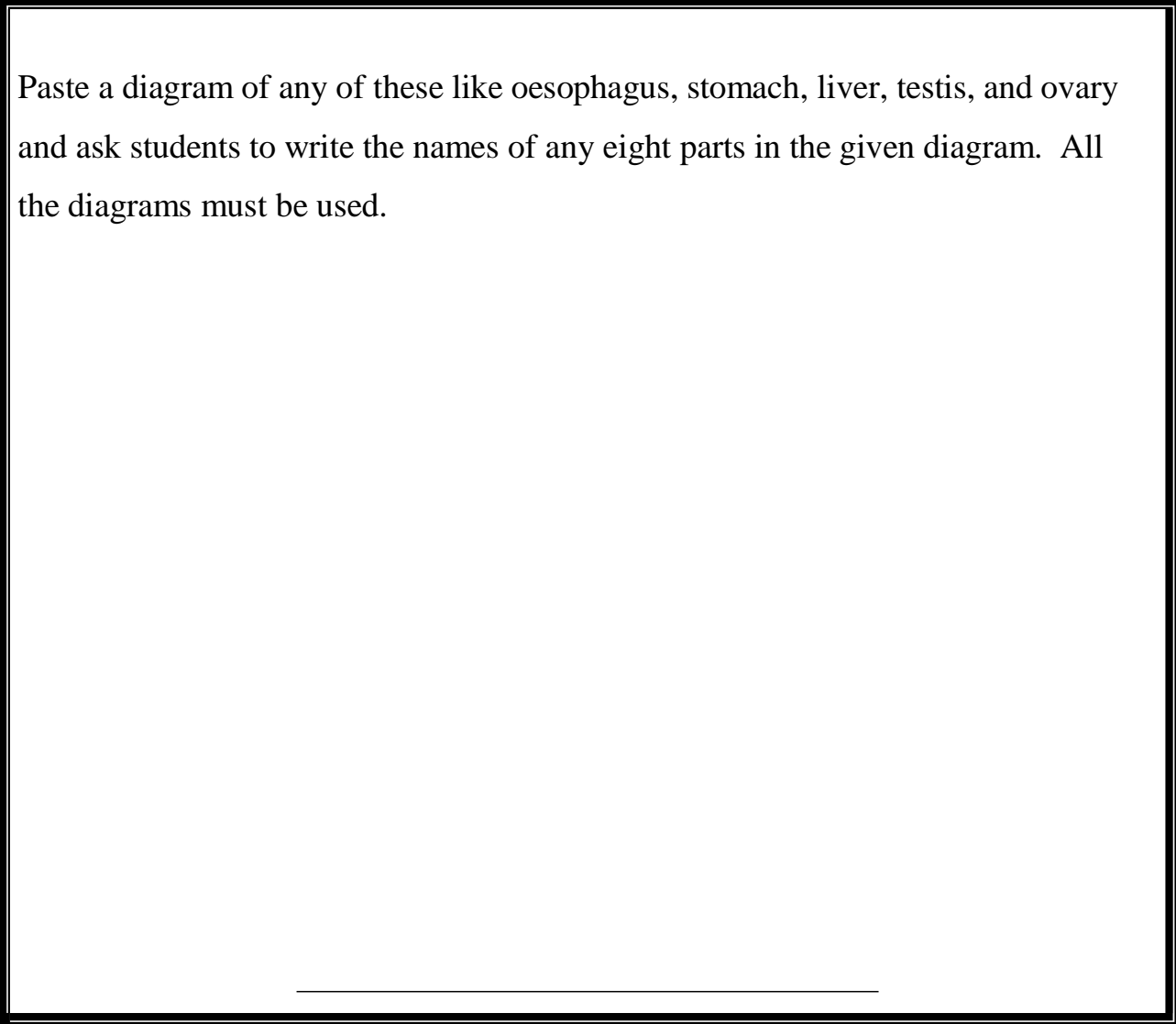
Student's Name..... Reg. Number.....

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**Q. No. 2.** Write the name of any eight parts in the diagram given below (2 marks).

Paste a diagram of any of these like oesophagus, stomach, liver, testis, and ovary and ask students to write the names of any eight parts in the given diagram. All the diagrams must be used.



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