

## **Set 1 - Science & Technology Paper (30 Marks)**

### **Q1. Fill in the blanks (4 Marks)**

1. In Amoeba, asexual reproduction occurs by \_\_\_\_\_ binary fission.
2. Fusion of male and female gametes leads to formation of \_\_\_\_\_.
3. \_\_\_\_\_ hormone is responsible for ovulation in females.
4. In Mucor, spores are produced in a structure called \_\_\_\_\_.

### **Q2. Write Definitions / Match the Following / Give the Name (4 Marks)**

1. Define: Regeneration

2. Match the following:

<b>Column A (Type of Reproduction)</b>	<b>Column B (Description)</b>
Asexual Reproduction	A. Involves fusion of male and female gametes, leading to genetic variation.
2. Sexual Reproduction	B. Occurs without gamete fusion, producing genetically identical offspring.
3. Binary Fission	C. Parent organism breaks into fragments, each developing into a new individual.
4. Budding	D. A unicellular organism divides into two similar daughter cells.
5. Fragmentation	E. A small outgrowth forms on the parent and develops into a new organism.

### **Q3. One Distinguish between (5 Marks)**

1. Distinguish between sexual and asexual reproduction. (2 Marks)
2. Hormones secreted by ovary of female reproductive system.
3. Any two sexual diseases.
4. Name two types of twins and distinguish in one point.

### **Q4. Answer the following questions (12 Marks)**

1. Describe the human female reproductive system.
2. Explain the concept and process of double fertilization in plants.
3. What is the menstrual cycle? Describe it in short.
4. What are the different types of asexual reproduction seen in unicellular organisms?

### **Q5. Diagram with explanation (5 Marks)**

Draw and explain the Human Male Reproductive System.

## **Set 2 - Science & Technology Paper (30 Marks)**

### **Q1. Fill in the blanks (4 Marks)**

1. \_\_\_\_\_ reproduction involves only one parent and produces identical offspring.
2. The embryo in uterus gets food through the \_\_\_\_\_.
3. Pollen grains germinate after falling on sticky \_\_\_\_\_.
4. \_\_\_\_\_ twins are genetically identical and arise from one embryo.

### **Q2. Write Definitions / Match the Following / Give the Name (4 Marks)**

1. Match the following:

<b>Column A (Structure/Term)</b>	<b>Column B (Function/Description)</b>
1. Androecium	A. Secretes progesterone to prepare endometrium for implantation.
2. Gynoecium	B. Male reproductive part of a flower, produces pollen grains.
3. Corpus Luteum	C. Female reproductive part of a flower, contains ovules.
4. Placenta	D. Supplies nutrients to the developing embryo in the uterus.
5. Menstrual Cycle	E. Repetitive changes in the female reproductive system every 28-30 days.

2. Give the name: Hormones secreted by ovaries.

### **Q3. One Distinguish between (5 Marks)**

1. Distinguish between Budding in Yeast and Hydra. (2 Marks)
2. Hormones secreted by ovary of female reproductive system.
3. Name two examples of vegetative reproduction.
4. Any two sexual diseases.

### **Q4. Answer the following questions (12 Marks)**

1. Explain the process of spore formation in fungi.
2. What is the role of hormones in the menstrual cycle?
3. What are monozygotic twins? How are they formed?
4. What is the structure of a flower with reference to sexual reproduction?

### **Q5. Diagram with explanation (5 Marks)**

1. Draw and explain the Flower showing sexual organs (androecium and gynoecium).

## **Set 3 - Science & Technology Paper (30 Marks)**

### **Q1. Fill in the blanks (4 Marks)**

1. \_\_\_\_\_ is a type of reproduction where the body breaks into parts and each part grows into a new organism.
2. In humans, sperm formation occurs in the \_\_\_\_\_.
3. \_\_\_\_\_ is the condition when endometrium breaks down and bleeding occurs.
4. In IVF technique, fertilization takes place \_\_\_\_\_ the body.

### **Q2. Write Definitions / Match the Following / Give the Name (4 Marks)**

1. Define: Vegetative Propagation

5. 2. Match the following:

Column A (Reproductive Process)	Column B (Organism/Example)
1. Simple Binary Fission	A. Yeast
2. Transverse Binary Fission	B. Hydra
3. Longitudinal Binary Fission	C. Amoeba
4. Budding	D. Paramecium
5. Regeneration	E. Planaria

### **Q3. One Distinguish between (5 Marks)**

1. Distinguish between Fragmentation and Regeneration. (2 Marks)
2. Hormones related with male reproductive system.
3. Types of twins.
4. Give two examples of unisexual flowers.

### **Q4. Answer the following questions (12 Marks)**

1. What is surrogacy? How does it help childless couples?
2. Explain the fertilization process in humans.
3. What is population explosion? State its effects.
4. Describe the male reproductive system of humans.

### **Q5. Diagram with explanation (5 Marks)**

1. Draw and explain the Human Female Reproductive System.