1. Choose the correct answer from the following options 1x15 = 15 Marks
   
   1) The amount of light entering into the human eye is controlled by:
      a) Ciliary muscle  b) Pupil  c) Cornea  d) Iris
   
   2) Which of the following is not a part of the female reproductive system in human being.
      a) Ovary  b) Uterus  c) Sperm duct  d) Oviduct
   
   3) The sex of unborn baby is determined by:
      a) The Sex chromosomes of mother  b) The Sex chromosomes of father
      c) The sex hormone  d) None of these.
   
   4) The longest cell in the human body.
      a) Muscle cell  b) RBC  c) WBC  d) Neuron
   
   5) The audible range of sound for human ear is:
      a) 20 Hz to 20,000 KHz  b) 20 KHz to 20,000 Hz
      c) 20 KHz to 20,000 KHz  d) 20 Hz to 20 KHz
   
   6) Colour blindness is caused due to:
      a) Lack of Rod cells  b) Lack of Cone cells
      c) Absence of Optic nerve  d) None of these
   
   7) The deficiency disease caused due to lack of Thyroxine:
      a) Anaemia  b) Goitre  c) Diabetes  d) AIDS
   
   8) Which of the following is a Eukaryotic cell:
      a) Bacterial cell  b) Blue Green Algae  c) Onion cell  d) None of these
   
   9) Pitch of a sound depends on:
      a) Amplitude  b) Frequency  c) Time period  d) Wave length
   
   10) Asexual reproduction takes place through budding in:
       a) Amoeba  b) Bacteria  c) Paramecium  d) Hydra
   
   11) The image formed by a plane mirror is:
       a) Laterally inverted  b) Real and inverted  c) Erect and inverted  d) Real and erect
12) Hormone secreted by Pancreas is:
   a) Insulin   b) Pancreatic Juice   c) Testosterone   d) Adrenalin

13) A single cell which can change its shape:
   a) Amoeba   b) Sperm cell   c) RBC   d) Paramecium

14) Number of nucleus present in a Zygote:
   a) One   b) Two   c) Three   d) None

15) Small spherical body inside the nucleus:
   a) Chromosomes   b) Genes   c) Nucleolus   d) Vacuoles

SECTION – B

II. Name the following
   16) The vibrating part in a “sitar”.
   17) The master gland.

III. Fill in the blanks
   18) The unfertilized egg always has ______ chromosome.
   19) Night birds have large number of ______ cells on their retina.

IV. Rewrite the false statement correctly.
   20) Frequency of sound is proportional to the square of the amplitude of the vibration producing the sound.
   21) Embryo is made up of a single cell

V. Complete the following
   22) Chloroplasts are the ________.
   23) Blind spot is the spot on the retina where ________.

VI. Define.
   24) Tissue
   25) Hormones

SECTION – C

VII. Answer the following in one or two sentences
   26) Define chromosomes. How many pairs of chromosomes are there in the cells of human beings.

   27) What are cell organelles? Give two examples.

   28) Define diffused reflection. How it is caused?

   29) Represent the sex determination of a baby in the form of a flow chart.

   30) What are pseudopodia? List out the functions of it.

   31) Write any two properties of sound.
32) Define external fertilization with two examples.
33) Distinguish between the sense of sight in Crab and Butterfly?
34) Define multicellular organisms, with 2 examples.
35) Identify the diagram given below, and label the parts according to the number given.

SECTION - D

VIII. Answer the following in 3 or 4 sentences. 3x10 = 30 Marks

36) Distinguish between noise and music, with example.
37) Write 3 differences between plant cells and animal cells.
38) Name the causal organism of AIDS? List down two ways by which it gets transmitted from an infected person to a healthy person?
39) What is the principle behind the working of a periscope and kaleidoscope?

OR

Draw a labeled sketch of the human eye.

40) Draw a labeled diagram showing binary fission in amoeba (diagram only).
41) Find the frequency of a sound wave, whose time period is 0.002 seconds. (show the steps)
42) Distinguish between viviparous and oviparous animals with examples.
43) How long does the impression of an object present on retina? How eye perceives objects as moving?
44) Why are Endocrine glands called ductless glands? Write any two functions of adrenal gland.
45) **Identify** the given diagram and label its parts.

```

```

a) __________________________
b) __________________________
c) __________________________
d) __________________________

**SECTION – E**

IX. Answer the following in Detail. 5x3 = 15 Marks

46) a) Define Reflection. 1 mark
    b) State the laws of reflection 2 marks
    c) In the following diagram, the ray PQ incidents on a
       mirror reflects from it, making an angle of 100° with the incident ray: 2 marks
       
       Find
       (a) angle of incidence
       (b) angle of reflection

```

47) a) What is meant by Adolescence? 1 mark
    b) Mention some changes that takes place in the body at puberty (4 points) 2 marks
    c) Write a short note on Adam’s Apple. 2 marks

48) a) Define Cloning? 1 mark
    b) Name the first cloned mammal? 1 mark
    c) Describe In Vitro Fertilization (IVF) 3 marks

OR

a) What is metamorphosis? Give any one example 2 marks
b) Define Foetus 1 mark
   c) Describe Fertilization in Hens? 2 mark

```