

**EXAMINATION PAPER, 2020**  
**Jharkhand Academic Council, Ranchi**  
**BIOLOGY-XI**  
**(BOTANY AND ZOOLOGY)**

[1 Hour]

[Full Marks : 40]

**General Instructions :**

1. Write your Name, Roll Code, Roll No., Registration No., Faculty and Paper on the OMR Answer Sheet in the provided. Put your Full Signature on the OMR Answer Sheet in the space provided.
2. There are 40 Multiple Choice Questions in all.
3. All questions are compulsory. Each question carries 1 mark.
4. Four options are given for each question numbered 1 to 4. Choose the correct option and indicate it by blackening the appropriate circle [●] in the OMR Answer Sheet given separately. Use only Blue/Black Ball-Point Pen. **The use of Pencil is not allowed.**
5. Before leaving the examination hall hand over the OMR Answer Sheet to the invigilator. You are allowed to take the question paper with you.

1. Biological name of mango is :

- (a) *Mangifera indica*  
(c) *Panthera Ico*

- (b) *Homo sapiens*  
(d) *Musca domestica*

2. Which of the following is a unicellular fungi ?

- (a) Yeast  
(c) Penicillium

- (b) Agaricus  
(d) Puccinia

3. Amphibians of plant kingdom are :

- (a) Algae  
(c) Pteridophytes

- (b) Bryophytes  
(d) Gymnosperms

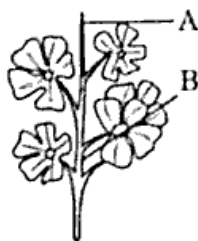
4. Tuber of potato is modified :

- (a) leaf  
(c) root

- (b) stem  
(d) none of these

5. In the given picture of flower, identify A and B :

- (a) A-Calyx, B-Corolla  
(b) A-Androecium, B-Pedicel  
(c) A-Gynoecium, B-Androecium  
(d) A-Pedicel, B-Calyx



6. The tissues which are responsible for growth of plants :

- (a) Meristems  
(c) Parenchyma

- (b) Sclerenchyma  
(d) Collenchyma

7. Prokaryotic cells have ribosomes of :

- (a) 50s  
(c) 70s

- (b) 30s  
(d) 80s

8. Crossing over takes place in which phase of the meiosis ?

- (a) Prophase I  
(c) Metaphase I

- (b) Prophase II  
(d) Xylem parenchyma

9. Plasmolysis occurs when :

- (a) water moves out of the cell  
(c) air moves into the cell

- (b) water moves into the cell  
(d) none of these

10. Which of the following is not a micronutrient for plants ?  
 (a) Cu (b) Zn  
 (c) Fe (d) N
11. How many pyruvic acids are formed after glycolysis of one molecule of glucose ?  
 (a) 2 (b) 4  
 (c) 6 (d) 8
12. Which of the following is a gaseous plant growth regulator ?  
 (a) Gibberellin (b) Ethylene  
 (c) Auxin (d) Cytokinin
13. Fluid mosaic model of plasma membrane was proposed by :  
 (a) Singer and Nicolson (b) Camillo Golgi  
 (c) Schleiden and Schwann (d) Mendel
14. The middle prominent vein of leaf is known as :  
 (a) Margin (b) Lamina  
 (c) Midrib (d) Petiole
15. Movement of  $H_2O$  through cell wall is :  
 (a) Apoplast (b) Symplast  
 (c) Tonoplast (d) None of these
16. In aerobic respiration total number of ATP molecules formed from 1 glucose molecule is :  
 (a) 32 (b) 34  
 (c) 38 (d) 20
17. Krebs's cycle is also known as :  
 (a) TCA cycle (b) BCA cycle  
 (c) ABA cycle (d) PGA cycle
18. Companion cells are associated with :  
 (a) Tracheid (b) Sclerenchyma  
 (c) Sieve tube (d) Vessel
19. The first event in photosynthesis is :  
 (a) Photoexcitation of chlorophyll and electron emission (b) Photolysis of water  
 (c) Release of oxygen (d) Synthesis of ATP
20. The most abundant element present in plants is :  
 (a) Manganese (b) Iron  
 (c) Nitrogen (d) Carbon
21. Biological name of Lion is :  
 (a) *Homo sapiens* (b) *Panthera leo*  
 (c) *Mangifera indica* (d) None of these
22. 'Systema Naturae' was written by :  
 (a) Bentham and Hooker (b) John Ray  
 (c) Lamarck (d) Linnaeus
23. In which class of animals mammary glands are present ?  
 (a) Aves (b) Pisces  
 (c) Mammalia (d) Amphibia
24. .... is the best stage to count the number and study of morphology of the chromosome.  
 (a) Prophase (b) Metaphase  
 (c) Anaphase (d) Telophase
25. Which organelle is not a part of the endomembrane system ?  
 (a) ER (b) Golgi complex  
 (c) Lysosomes (d) Mitochondria
26. The simplest form of carbohydrate is :  
 (a) Amino acid (b) Fatty acid  
 (c) Nucleic acid (d) Glucose

27. Food bolus after passing through alkaline medium is called as :  
 (a) Chyle (b) Chyme  
 (c) Chylomicron (d) Fat body
28. Which of the following plays an important role in blood coagulation ?  
 (a) Iron (b) Calcium  
 (c) Copper (d) Sodium
29. The basic functional unit of human kidney is :  
 (a) Nepridia (b) Henle's loop  
 (c) Nephron (d) Pyramid
30. Elbow joint is as example of :  
 (a) Pivot Joint (b) Hinge joint  
 (c) Gliding joint (d) Ball and socket joint
31. Schwann cells are present in :  
 (a) Myelinated axon (b) Non-myelinated axon  
 (c) Cell body (d) None of these
32. Which of the following hormones is secreted by Pituitary gland ?  
 (a) Thyroxine (b) Gonadotropins  
 (c) Melatonin (d) Thymosin
33. The second component in the Binomial nomenclature is :  
 (a) Generic name (b) Common name  
 (c) Specific epithet (d) None of these
34. Penicillin is obtained from which organism ?  
 (a) Protozoa (b) Bacteria  
 (c) Fungi (d) Chrysophyte
35. Which of the following is the second largest phylum of animal kingdom ?  
 (a) Mollusca (b) Porifera  
 (c) Annelida (d) Hemichordata
36. Blood is :  
 (a) an epithelial tissue (b) a connective tissue  
 (c) a muscular tissue (d) a nervous tissue
37. Which part of the human alimentary canal does not secrete any digestive enzyme ?  
 (a) Mouth (b) Oesophagus  
 (c) Stomach (d) Duodenum
38. One haemoglobin carries how many molecules of  $O_2$  ?  
 (a) 4 (b) 2  
 (c) 6 (d) 8
39. Chemicals which are released at the synaptic junction are called as :  
 (a) hormones (b) neurotransmitters  
 (c) cerebrospinal fluid (d) lymph
40. Right atrium receives blood from :  
 (a) Pulmonary artery (b) Pulmonary vein  
 (c) Inferior and superior vena cava (d) Aorta