

## Model Question of SSC Examination 2016 All Board

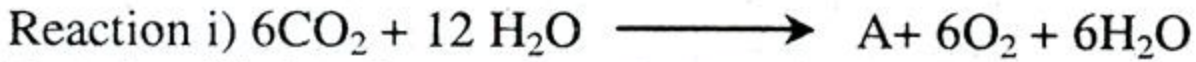
Sub: Biology (Creative)

Time: 2 Hours 10 minutes

Total Marks-40

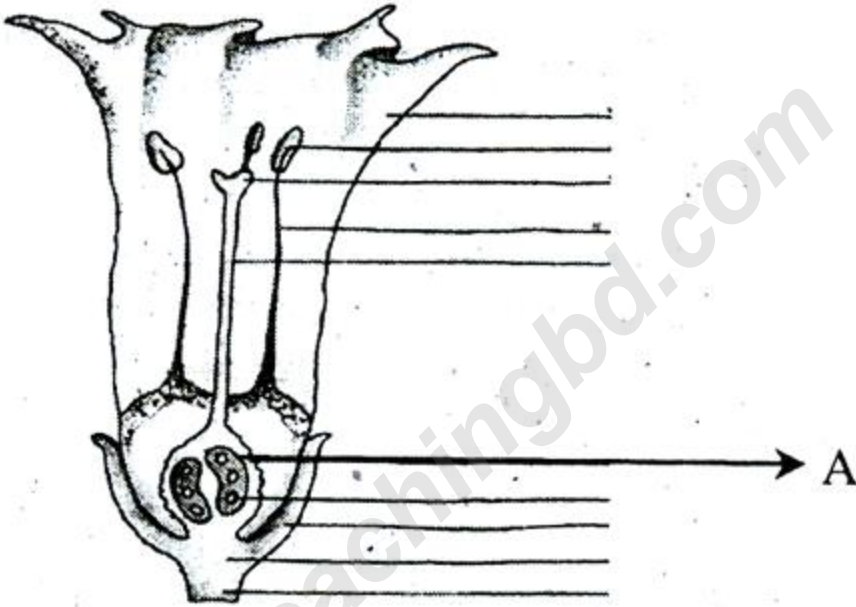
(Answer any four of the following Questions )

1. ▶



- What is gene? 01
- Why mitochondria are called the power house of cell? 02
- Analyze the differences between reaction i and reaction ii as per the stem. 03
- Describe the process of producing A mentioned at the first reaction and what will happen if there is no production of this molecule?- Explain in brief. 04

2. ▶



- What is ecosystem? 01
- What do you mean by binomial nomenclature? 02
- Describe how the identified portion of the flower takes part in its reproduction. 03
- What is the significance of the process happened inside portion A? - Analyze your opinion. 04

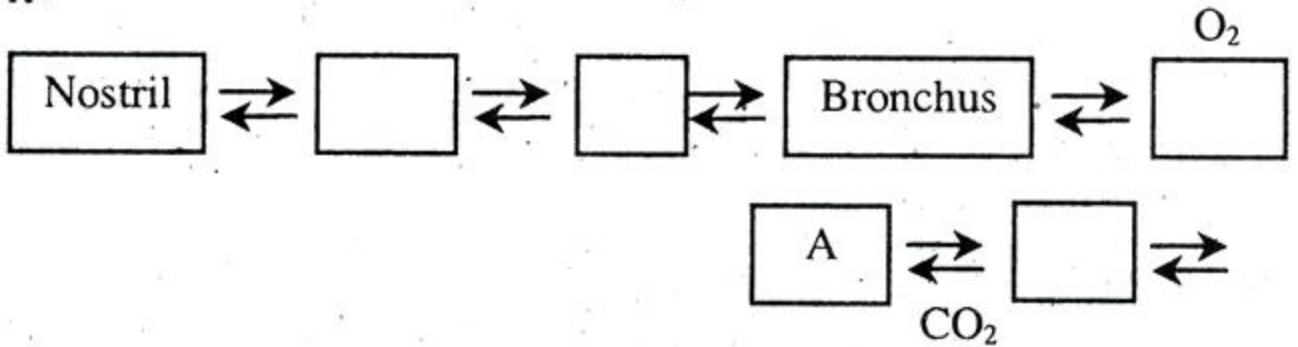
**Group- B (Zoology)**

3. ▶ Rani is a garments worker. While sewing a needle prick in her hand. She suddenly jerking away of her hand. This action of Rani can be explained in a scientific way. Special system is related with this phenomenon.

- Who is called the father of Genetics? 01
- Why DNA replication is called semi conservative? 02
- Describe the structure of the functional unit of the special system mentioned in the stem. 03

- d. Rani suddenly jerking away her hand, why does it happen?  
Describe this phenomenon in a scientific way. 04

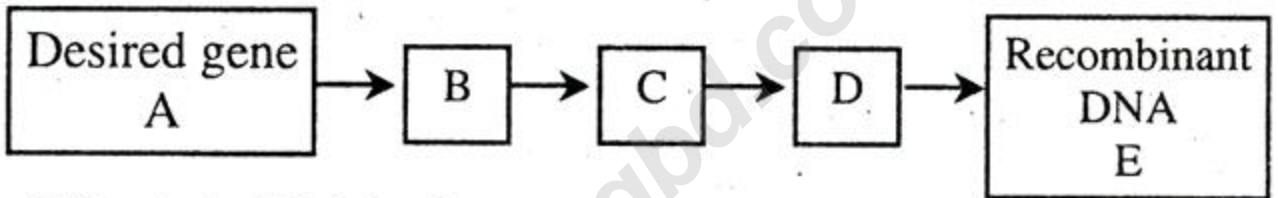
4. ▶



- a. What is Biotechnology? 01  
 b. What do you mean by GMO? 02  
 c. Describe the above structure in the stem. 03  
 d. Explain how  $O_2$  and  $CO_2$  gas transport occur in the above mentioned system. 04

### Group- C (Combined)

5. ▶



- a. What is imbibition? 01  
 b. Why meiosis is important in maintaining genetic stability? 02  
 c. Describe the process from A to E in brief as mentioned at the stem. 03  
 d. The process mentioned above has great influence in crop development and agriculture- analyze with logic. 04

6. ▶ Genetics is a special branch of biology deals with heredity. Structural and behavioral traits are passed from parents to offspring through heredity materials. Some of the genetic abnormalities are color blindness and Thalassemia. Color blindness is more common in man than woman.

- a. What is respiration? 01  
 b. What do you mean by survival of the fittest? 02  
 c. Write about the heredity materials mentioned in stem. 03  
 d. Color blindness is more common in man than woman. Explain it. 04



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## Sub: Biology (MCQ)

Time: 35 minutes

Total Marks- 35

[Darken the circle (O) of the correct option from the following alternatives]

- First stable compound of  $C_3$  plant is-
    - Oxaloacetic acid
    - 3-Phosphoglyceraldehyde
    - 3- Phosphoglyceric acid
    - 3-carbon Keto acid
  - Optimum temperature for respiration is-
    - 20-35°C
    - 20-40°C
    - 30-45°C
    - 20-45 °C
  - Cell membrane is-
    - Single layered
    - Semipermeable
    - Composed of lipid and protein
 Which one is correct?
    - i & ii
    - i & iii
    - ii & iii
    - i, ii & iii
  - The scientific name of national flower is-
    - Oryza sativa*
    - Corchorus capsularis*
    - Nymphaea nouchali*
    - Hibiscus rosa-sinensis*
  - Characteristics of sieve tube are-
    - They do not contain nucleus when mature
    - Part of Xylem
    - The function is to conduct food
 Which one is correct?
    - i & ii
    - i & iii
    - ii & iii
    - i, ii & iii
  - Necrotic spots are developed in deficiency of-
    - P
    - N
    - K
 Which one is correct?
    - i & ii
    - i & iii
    - ii & iii
    - i, ii & iii
  - Which one is not an important factor of transpiration?
    - Temperature
    - Oxygen
    - Relative humidity
    - Light
  - Because of auxin-
    - Root initiation occurs
    - Rate of osmosis and respiration decreases
    - Initiate the production of seedless fruits
 Which one is correct?
    - i & ii
    - i & iii
    - ii & iii
    - i, ii & iii
  - Which one of the following is a long day plant?
    - Dahlia
    - Sunflower
    - Lettuce
    - Cucumber
  - Responsible for fruit ripening-
    - Gibberellin
    - Auxin
    - Ethelene
    - Cytokinin
  - Which plastid helps in plants reproduction?
    - Chloroplast
    - Leucoplast
    - Amyloplast
    - Chromoplast
  - Who is the father of Genetics?
    - Robert Brown
    - James Watson
    - Gregor Mendel
    - Hans Krebs
  - After fertilization-
    - Ovary turns into fruits
    - Ovule turns into seed
    - Ovary wall turns into seed coat.
 Which one is correct?
    - i & ii
    - i & iii
    - ii & iii
    - i, ii & iii
  - Which one is a RNA virus?
    - Bacteriophage
    - Tobacco Mosaic Virus
    - Rubella
    - Hepatitis B virus
  - Which one is phytoplankton?
    - Algae
    - Insects
    - Fungi
    - Small fish
- Read the stem and answer question 16-17
- 
- ```

graph LR
    GP[Green plant] --> F[Fly]
    GP --> FR[Frog]
    GP --> fish
    GP --> SB[Small bird]
    FR --> S[Snake]
    S --> E[Eagle]
  
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- How many food chains are there in the diagram mentioned above?
    - 1
    - 2
    - 3
    - 4
  - In the light of the stem which one is the consumer of second level?
    - Small fish
    - Snake
    - Eagle
    - Grasshopper
  - During cell division if a mother cell ( $2n=28$ . goes through reduction division, then how many chromosomes will be there in each daughter cells?
    - 28
    - 56
    - 12
    - 14



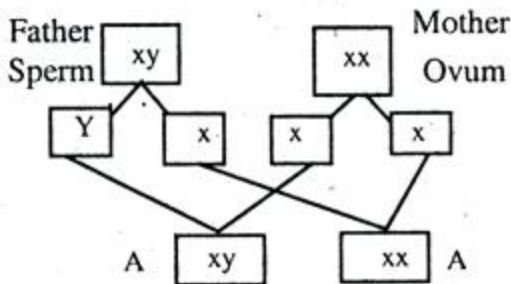
19. What is the latest scientific name of Asian toad?  
 (a) *Bufo melanostictus*  
 (b) *Corchorus capsularis*  
 (c) *Duttaphrynus melanostictus*  
 (d) None
20. Which branch of biology deals with the bio chemical activities of different organs of organism?  
 (a) Morphology (b) Physiology  
 (c) Histology (d) Endocrinology

Read the stem and answer the questions (21-22.)

Mr. Rahim is suffering from a disease. He went to a hospital. Doctor said that one of his organ is not functioning. Doctor advised him to remove his body wastes artificially.

21. Which organ of Mr. Rahim is not functioning?  
 (a) Heart (b) Kidney  
 (c) Brain (d) Lungs
22. Where Epiglottis is found?  
 (a) Pharynx (b) Larynx  
 (c) Trachea (d) Bronchus
23. What are the functions of this organ?  
 i. To keep balance of water  
 ii. To control gaseous exchange  
 iii. To eliminate harmful wastes from body  
 Which one is correct?  
 (a) i & ii (b) ii & iii  
 (c) i & iii (d) i, ii & iii
24. Which animal are scavengers?  
 (a) Crow (b) Fox  
 (c) Vulture (d) All of them
25. Which mineral deficiency caused Osteoporosis?  
 (a) Potassium (b) Calcium  
 (c) Phosphorus (d) Iron

Read the stem and answer the questions (26-27.)



26. In the state of Y mentioned in the stem, what would be the number of chromosomes?  
 (a) 46 (b) 44

- (c) 23 (d) 22
27. What type of chromosomes are there in A and B mentioned in the stem?  
 (a) XY, XX (b) XX, XY  
 (c) XY, XY (d) XX, XX
28. In which part of the body Tuberculosis can occur?  
 i. Lungs ii. Bone  
 iii. Intestine  
 Which one is correct?  
 (a) i & ii (b) ii & iii  
 (c) i & iii (d) i, ii & iii
29. Which one is a saprophytic food chain?  
 (a) Grass → Grasshopper → Toad  
 (b) Man → Mosquito → Dengu → virus  
 (c) Dead body → Fungi → Earth → worm  
 (d) Algae → Zooplankton → Big fish
30. Who is the writer of book "Origin of species by means of Natural Selection"?  
 (a) Russel Wallace (b) Darwin  
 (c) David Prain (d) Alexander Fleming
31. Which one is a special enzyme to join enzyme?  
 (a) Ligase (b) Restriction  
 (c) Lactase (d) Lipase
32. Read the following statements:-  
 i. Two bones are connected to each other by Ligament  
 ii. Human skeleton is composed of 204 bones  
 iii. Muscles are joined to bones by tendons  
 Which one is correct?  
 (a) i & ii (b) ii & iii  
 (c) i & iii (d) i, ii & iii
33. Which statements are true for lungs?  
 i. Lung is spongy, soft and light reddish in color  
 ii. Lung is covered by pleura  
 iii. Right lung is two lobed  
 Which one is correct?  
 (a) i & ii (b) ii & iii  
 (c) i & iii (d) i, ii & iii
34. Where is uracil found?  
 (a) DNA (b) RNA  
 (c) Gene (d) Locus
35. How many pairs of nerves comes from brain?  
 (a) 12 pairs (b) 21 pairs  
 (c) 31 pairs (d) 13 pairs

|    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     |  |  |
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| 1  | (c) | 2  | (d) | 3  | (c) | 4  | (c) | 5  | (b) | 6  | (b) | 7  | (b) | 8  | (b) | 9  | (d) | 10 | (c) | 11 | (d) | 12 | (c) | 13 | (a) | 14 | (b) | 15 | (a) | 16 | (d) | 17 | (b) | 18 | (d) | 19 | (c) | 20 | (b) |  |  |
| 21 | (b) | 22 | (b) | 23 | (c) | 24 | (d) | 25 | (b) | 26 | (c) | 27 | (a) | 28 | (d) | 29 | (c) | 30 | (b) | 31 | (a) | 32 | (c) | 33 | (a) | 34 | (b) | 35 | (a) |    |     |    |     |    |     |    |     |    |     |  |  |