

AP BOARD SSC CLASS 10 BIOLOGICAL SCIENCES MODEL PAPER

SET 2

Time: 2 hrs. 45 min.

PART - A & B

Max. Marks: 40

INSTRUCTIONS:

- i) 15 minutes allocated to read the question paper. 2.30 hours allocated to write answers.
 - ii) PART-A must be answered in a separate answer sheet.
 - iii) Students can take PART-A (Question paper) with them.
 - iv) PART-B (Bit Paper) should tag to the answer sheet and give them to Invigilator.
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Time: 2 hrs

PART - A

Marks: 30

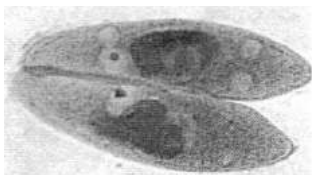
SECTION - I

NOTE: i) Answers the following questions.

ii) Each question carries ONE mark.

4 x 1 = 4

1. Seema said that by judicious use of renewable resources, one can conserve fossil fuels and reduce the cost of living. Hari said that one can use the fuels as per one's wish as the fuels are renewable. Whom do you support? Give your reasons.
2. Observe the given figure. Can you identify it? Explain in two sentences.



3. Is there any relation between transpiration and rain fall?
4. Why Adrenaline hormone also called as fight and flight hormone?

SECTION - II

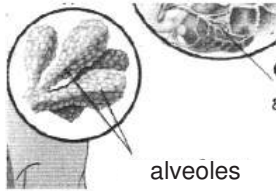
NOTE: i) Answer the following questions.

ii) Each question carries TWO marks.

5 x 2 = 10

5. One student (researcher) wants to cross pure tall plant (TT) with pure dwarf (tt) plant. What might be in F1 and F2 generations? Explain.
6. What measures do you suggest to stop female foeticide?
7. The diameter of the efferent arteriole is less than that of afferent arteriole. Can you give the reason?

8. Observe the figure given below. Answer the following questions.



- i) What will happen if the respiratory tract is not moist?
 - ii) Are both lungs similar in size?
 - iii) Why alveolus are so small and uncountable in number?
9. Many measures are being taken worldwide, to minimise global warming. What steps do you prefer to take in your living world, to minimise global warming?

SECTION - III

NOTE: i) Answer the following questions.

ii) Each question carries FOUR Marks.

4 x 4 = 16

10. a) Answer the following questions:

- i) What is the Law of independent assortment? Explain with an example?
- ii) What are variations? Explain with a suitable example.
- iii) If the theory of inheritance of acquired characters proposed by Lamarck was correct. How the world will be?

(OR)

10. b) Give reasons:

- i) If we press tongue against the palate we can recognise taste easily.
- ii) We cannot identify the taste when food is hot.
- iii) In mouth food forms into a slurry mass.
- iv) Small intestine is similar to a coiled pipe.

11. a) Write differences between

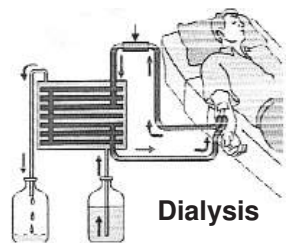
- i) mitosis-meiosis
- ii) male gametophyte-female gametophyte.

(OR)

11. b) Write answers for the following questions:

- i) How does a neuron differ from an ordinary cell in structure? Write notes.
- ii) Is the structure of neuron suitable for transmission of impulses? Analyse.

12. a) Observe the given figure. Answer the questions given below:



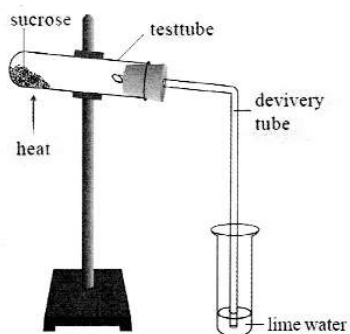
- i) What is Dialysis?
- ii) What is the permanent remedy for damaged kidneys?
- iii) Where is the transplanted kidney fixed in the body kidney failure patient?
- iv) Explain about organ donation.

(OR)

12. b) Write the differences between arteries, veins and capillaries:

Blood vessel	Figure	Thick ness of the Wall	Function	Lumen size	Capacity to retain shape	No.of layers
Artery						
Vein						
Capilla-ries						

13. a) How do you test the changes during combustion of sugar? Write the experiment you have conducted in your school.



CO_2 - a by product of energy release

- i) is heat production always the same in our body?
- ii) how are carbon dioxide and water formed in this experiment?

(OR)

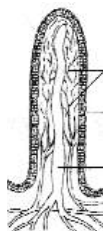
13. b) Which experiment will you conduct to prove that green plants liberate oxygen when kept under the sun? Write your observations and write your inference with a neat labelled diagram.

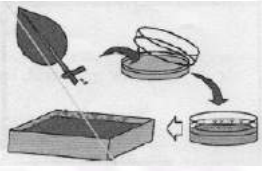
INSTRUCTIONS

- i) Answer ALL the questions.
- ii) Each question carries $\frac{1}{2}$ Mark.
- iii) Marks will not be awarded in any case of over writing, rewritten or erased answers.
- iv) Write the CAPITAL LETTER (A, B, C, D) showing the correct answer for the following questions in the brackets provided against them $20 \times \frac{1}{2} = 10$

SECTION - IV

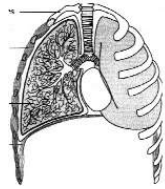
14. A plant is kept in dark cupboard for about forty eight hours before conducting any experiment on Photosynthesis in order to ()
 A) Remove Chlorophyll from leaves
 B) Remove starch from leaves
 C) Ensure that no photosynthesis occurred
 D) Ensure that leaves are free from the starch
15. According to Charles Elton ()
 A) Carnivores at the top of the pyramid
 B) Energy trapping is high at the top of the pyramid
 C) No producers at the top of the pyramid
 D) A and C
16. The entering of pollutants in the food chain is called as ()
 A) Bioaccumulation
 B) Biomagnification
 C) Biosynthesis
 D) Biology
17. Leaf movement in mimosa helps to ()
 A) Reduce photosynthesis
 B) Protect from grazers
 C) Releasing phytohormones
 D) Regulate its growth
18. In about 1857 Gregor Johans Mendel started working on the problem of ()
 A) The respiratory problems in organisms
 B) The heart problems in organisms
 C) How variations were passed on from one generation to other
 D) The food problems of the organisms
19. Observe the given figure. This is present in the small intestine. It increases the surface area so that the food retained in the folds can remain longer thereby enhancing absorption. What is it? ()
 A) heart
 B) liver
 C) large intestine
 D) villus



20. Sequence of passage of urine in human body ()
 i) kidneys ii) ureter iii) urethra iv) bladder
 A) i, ii, iv, iii B) i, ii, iii, iv
 C) iv, iii, i, ii D) ii, iii, i, iv
21. According to Mendal alleles have the following character ()
 A) Pair of genes
 B) Responsible for character
 C) Gametes
 D) Recessive factors
22. Which of the following is the correct description of the human life cycle? Choose the right option ()
 A) Babyhood, childhood, adolescence, adulthood
 B) Childhood, babyhood, adulthood, adolescence
 C) Adolescence, babyhood, adulthood, childhood
 D) None of these
23. Observe the figure given below. This is a modern technique of growing plants. It helps to grow more plants in less time and place. What is this technique? ()
 A) Sexual reproduction
 B) Tissue culture
 C) Binary fission
 D) Cell division
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24. is the functional and structural unit of the nervous system. ()
 A) Nerve cell B) Nephron
 C) Red blood corpuscle D) Axon
25. Which of the following opinion is correct?
 A) Ravi said, Xylem and phloem cells arranged one upon the other to form a tube like structure.
 B) John said, Xylem and phloem are not separate tube like structures.
 C) Salma said, Xylem and phloem cells connect together to form a tube like structure.
 D) Hari said, because of its shape they said to be tube like structures.
26. Which of the following hormone has direct impact on urination?
 A) Adrenal B) Vasopressin C) FSH D) Estrogen
27. It is a median, pear shaped and distensible sac that occurs in the pelvic part of the abdomen. It stores urine brought by two ureters. The storage capacity of urinary bladder is 300 - 800 ml. What is it? ()
 A) Ureter B) Urethra
 C) Urinary Bladder D) Hilus
28. Vitamin deficiency leads to delayed coagulation of blood ()
 A) A B) C C) D D) K

29. Observe the figure given below is the muscular tissue present at the floor of the chest cavity. What is it? ()

- A) Rib bone
- B) Lung
- C) Chest bone
- D) Diaphragm



30. Respiration is a catabolic process because of -

- A) breakdown of complex food molecules
- B) conversion of light energy
- C) synthesis of chemical energy
- D) energy storage

31. Human organism is an internal combustion machine because of

- A) Assimilation of energy from food
- B) Liberate CO_2 during respiration
- C) Expel waste food at the end state digestion
- D) Secrete powerful digestive juices

32. See the picture given below. Can you identify the disease? ()

- A) Marasmus
- B) Kwashiorkor
- C) Obesity
- D) Measles



33. Sustainable development means ()

- A) To prevent wastage
- B) Constant improvement
- C) Development without any damage
- D) More production in less time

PART - B ANSWERS

14-B, 15-D, 16-A, 17-B, 18-C, 19-D, 20-A, 21-A, 22-A, 23-B, 24-A, 25-D, 26-B, 27-C, 28-D, 29-D, 30-C, 31-A, 32-B, 33-C.