

GENERAL SCIENCE, Paper-II

(English Version)

20E

Time : 2 Hours 45 Mins.]

[Maximum Marks : 50

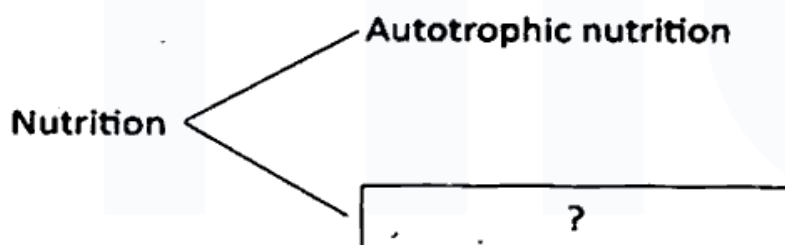
Instructions :

1. First 15 minutes are meant for reading the question paper and remaining 2 hours 30 minutes are for writing the exam.
2. Answer all questions in the given booklet.
3. The question paper contains four sections.
4. Only section four has internal choice.

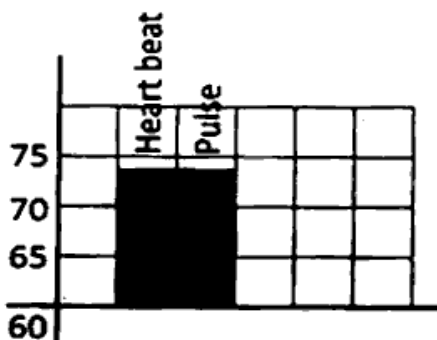
Section – I $12 \times \frac{1}{2} = 6$

- Note :** (1) Answer all the questions.
(2) Each question carries $\frac{1}{2}$ mark.

1. Write the missing part from the flowchart.



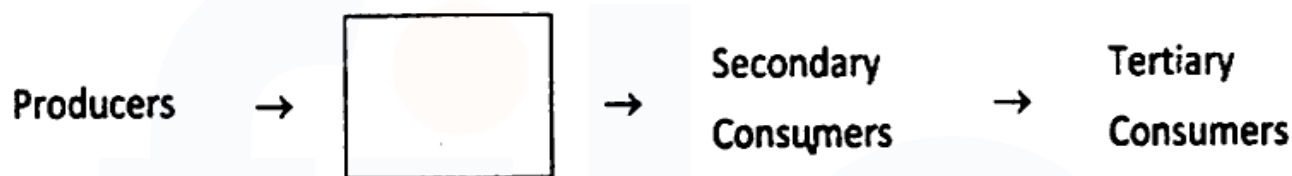
2. Pulmonary : Lungs :: Cardiac : _____.
3. Observe the sample graph.



What is the relationship between heart beat and the pulse ?

4. Which is the largest part of the brain ?
5. Who is called as the Father of genetics ?
6. John prepared an apparatus used to observe heart beat by using papercup and plastic tube. To which device does this model belong ?

7. Complete the given food chain.



8. Identify the logo.



9. I am a Vitamin responsible for blood coagulation.

Guess who am I ?

10. Expand HIV.

11. Name the Phytohormone responsible for cell elongation and differentiation of shoots and roots. []

(A) Auxin (B) Gibberellin (C) Cytokinin (D) Ethylene

12. Identify the mismatched pair –

- (i) Producers – Frog, Cat
- (ii) Herbivores – Cow, Rabbit
- (iii) Predators – Lion, Tiger

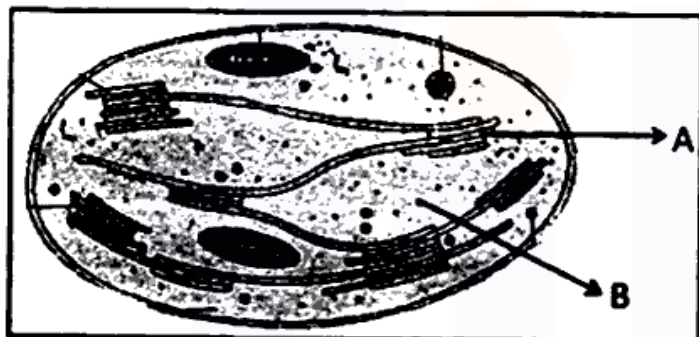
Section – II

8 × 1 = 8

Note : (1) Answer *all* the questions.

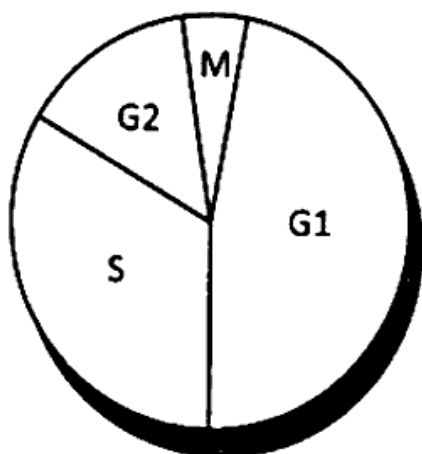
(2) Each question carries **1** mark.

13. Label the parts given in the diagram.



14. Prepare a questionnaire to ask an Environmentalist about the consumption of fossil fuels.

15. What does this chart denote ? In which phase the size of the cell increases ?



16. Which materials are required to study the Kidney of Goat/Sheep in the Laboratory ?

17. Write examples for renewable and non-renewable resources.

18. Write slogans to stop child marriages.

19. Why Gliricidia plantation is done on the field bunds ?

20. Observe the following table and fill the table :

Sr. No.	Name of the gland	Hormone	Effect of the hormone
1.	Ovary	(?)	Growth of uterus, menstrual cycle in females
2.	?	Testosterone	Secondary sexual characters in males

Section – III

8 × 2 = 16

Note : (1) Answer all the questions.

(2) Each question carries 2 marks.

21. Why did Mendel choose Garden-pea for his experiments ?

22. What food habits you are going to follow after reading the chapter NUTRITION ?

23. Observe the following table :

♀ \ ♂	Y	y
Y	YY	Yy
y	yY	yy

'YY' Pure breed of Yellow

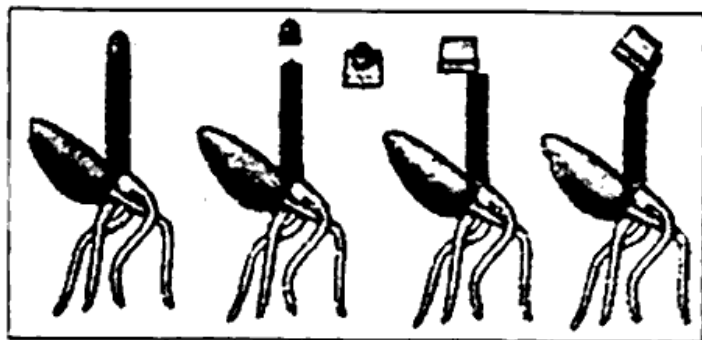
'yy' Pure breed of Green

(i) What is the Phenotypic ratio of F_2 generation in monohybrid cross ?

(ii) What is the dominant character in the given monohybrid cross ?

24. If you have a chance to meet a Cardiologist, what questions do you ask to know about the heart diseases ?

25. Observe the following and answer the given questions.



(i)
(ii)

Who discovered the first plant hormone 'auxin' by this experiment ?

What are your observations in this experiment ?

26. What precautions do you suggest to your elders during long Journey; regarding edema ?
27. Natural resources have been decreasing more rapidly. Guess what will be the consequences ?
28. Write any two differences between sexual and asexual reproduction.