



BIOLOGY

BOOKS - MTG IIT JEE FOUNDATION

FOOTSTEPS TOWARDS CBSE BOARD

Section A

1. Name the agricultural tool used for tilling and levelling the field.



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2. In humans, which organ produces an ovum?



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3. A pond looks green from a distance due to the growth of algae. What could be the cause?



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4. Name any two crops that could be grown by transplantation.



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5. During which time of year are zaid crops grown?



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6. Name the cell organelles that is able to make its own proteins.



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7. Which organelle is considered as a suicide bag?



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8. Write two examples of traditional irrigation system.



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9. Why is cell called 'the structural and functional unit of life'?



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10. Give the importance of vacuole in plant cell.



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11. What is menopause? At what age does menopause occur?



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12. What causes acne and pimples in adolescents?



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13. Fill in the blanks and select the correct option.

Due to deforestation, the carbon dioxide level will __I__ in the atmosphere, the rate of infiltration will ___II___ in the soil and the temperature of the earth will ___III___.

- A. I-decrease , II-increase , III-increase
- B. I-increase , II-decrease , III-increase
- C. I-decrease , II-decrease , III-increase
- D. I-increase , II-decrease , III-decrease

Answer: b



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14. Pituitary gland is also called the master gland. Why?



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15. Name one biodegradable fertiliser.



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16. Which industry is the main source of gaseous pollutants like sulphur dioxide and nitrogen dioxide in Agra?



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17. Name two cell organelles common to plant and animal cells.



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18. Define nucleoplasm.



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19. Assertion : Professor Ahmad suggests that the answer to deforestation is reforestation.

Reason: Reforestation is restocking of the destroyed forests by planting new trees.

A. Both Assertion and Reason are true and

Reason is correct explanation of the

assertion.

B. Both Assertion and Reason are true but

Reason is not the correct explanation of

the assertion.

C. Assertion is true but Reason is false.

D. Assertion is false but Reason is true.

Answer: A



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20. Assertion : Fertilisation which takes place inside the female body is called internal fertilisation.

Reason: Internal fertilisation is very common in aquatic animals such as starfish.

A. Both Assertion and Reason are true and

Reason is correct explanation of the assertion.

B. Both Assertion and Reason are true but

Reason is not the correct explanation of

the assertion.

C. Assertion is true but Reason is false.

D. Assertion is false but Reason is true.

Answer: C



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21. Assertion : Uterus is the site for embryonic and fetal development.

Reason : Human male inserts his penis into uterus and release sperms

A. Both Assertion and Reason are true and Reason is correct explanation of the assertion.

B. Both Assertion and Reason are true but Reason is not the correct explanation of the assertion.

C. Assertion is true but Reason is false.

D. Assertion is false but Reason is true.

Answer: C



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22. Assertion : Lichen forms thin green film on surface of water.

Reason: Lichen is symbiotic association between algae and fungi.

A. Both Assertion and Reason are true and

Reason is correct explanation of the assertion.

B. Both Assertion and Reason are true but

Reason is not the correct explanation of

the assertion.

C. Assertion is true but Reason is false.

D. Assertion is false but Reason is true.

Answer: B



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23. Microorganisms play an important role in our lives. Various microorganism are used in preparing food and beverages for both domestic and industrial use. They can also

prove harmful to us as they cause a number of diseases in human, plants and animals. Microorganisms also spoil clothing and leather products.

Which microbe is used to ferment the dough of dosa?

A. Bacteria

B. Fungi

C. Algae

D. Protozoa

Answer: B



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24. Microorganisms play an important role in our lives. Various microorganism are used in preparing food and beverages for both domestic and industrial use. They can also prove harmful to us as they cause a number of diseases in human, plants and animals. Microorganisms also spoil clothing and leather products.

Disease that spreads through contaminated food and water is

A. anthrax

B. measles

C. typhoid

D. flu

Answer: C



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25. Microorganisms play an important role in our lives. Various microorganism are used in preparing food and beverages for both

domestic and industrial use. They can also prove harmful to us as they cause a number of diseases in human, plants and animals. Microorganisms also spoil clothing and leather products.

Which bacterium is responsible for curdling of milk?

- A. Streptococcus
- B. Saccharomyces
- C. Leuconostoc
- D. Lactobacillus

Answer: D



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26. Microorganisms play an important role in our lives. Various microorganism are used in preparing food and beverages for both domestic and industrial use. They can also prove harmful to us as they cause a number of diseases in human, plants and animals. Microorganisms also spoil clothing and

leather products.

Mixotrophic nutrition is shown by

A. Euglena

B. Paramecium

C. Entamoeba

D. Amoeba

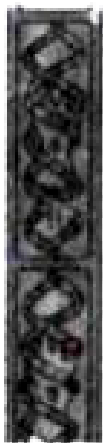
Answer: A



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27. Microorganisms play an important role in our lives. Various microorganism are used in preparing food and beverages for both domestic and industrial use. They can also prove harmful to us as they cause a number of diseases in human, plants and animals. Microorganisms also spoil clothing and leather products.

Identify the multicellular filamentous algae.



A.



B.



C.



D.

Answer: A



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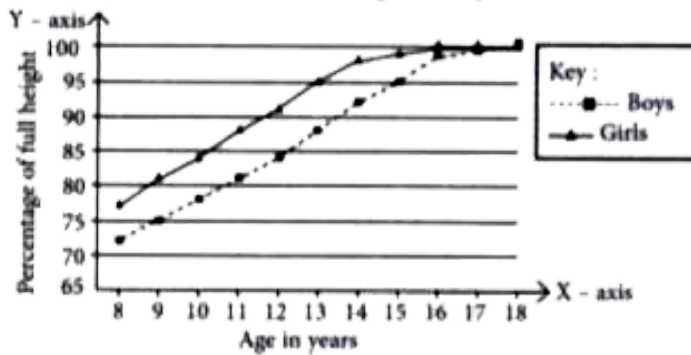
28. Puberty is the period in life at which sexually immature boy or girl becomes sexually mature and capable of reproduction.

It happens to be at the age of 11 to 13 years in girls and 13 to 16 years in boys. However, the period may vary from person to person. Puberty ends when an adolescent reaches the reproductive maturity. At puberty, certain changes occur both in boys and girls. Some changes are common in girls and boys such as increase in height, changes in body shape, changes in voice box and voice, etc.

Refer to the given graph.

A girl is 12 years old and 150 cm tall. What would be her height at the end of the growth

period?



A. 155 cm

B. 170 cm

C. 181 cm

D. 163 cm

Answer: D



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changes in voice box and voice, etc.

Which of the following changes does not occur at puberty?

A. Development of milk secretion glands in girls

B. Prominent Adam's apple in boys

C. Sebaceous glands become inactive

D. Testis and penis become fully developed

Answer: C



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changes in voice box and voice, etc.

Adolescents are also called

A. infants

B. teenagers

C. adult

D. none of these.

Answer: B



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31. Puberty is the period in life at which sexually immature boy or girl becomes sexually mature and capable of reproduction. It happens to be at the age of 11 to 13 years in girls and 13 to 16 years in boys. However, the period may vary from person to person. Puberty ends when an adolescent reaches the reproductive maturity. At puberty, certain changes occur both in boys and girls. Some changes are common in girls and boys such as increase in height, changes in body shape, changes in voice box and voice, etc.

Which of the following is the most important change that marks the onset of puberty?

- A. Change in facial features
- B. Increased growth of hair
- C. Ability to reproduce
- D. Increase in the height

Answer: C



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32. Puberty is the period in life at which sexually immature boy or girl becomes sexually mature and capable of reproduction. It happens to be at the age of 11 to 13 years in girls and 13 to 16 years in boys. However, the period may vary from person to person. Puberty ends when an adolescent reaches the reproductive maturity. At puberty, certain changes occur both in boys and girls. Some changes are common in girls and boys such as increase in height, changes in body shape, changes in voice box and voice, etc.

Which of the following statements are correct?

(I) Girls have a high pitched voice.

(II) Salivary glands are ductless glands.

(III) All body parts do not grow at the same rate.

(IV) At puberty, no increase in height takes place.

A. (II) and (IV)

B. (II) and (III)

C. (I) and (IV)

D. (I) and (III)

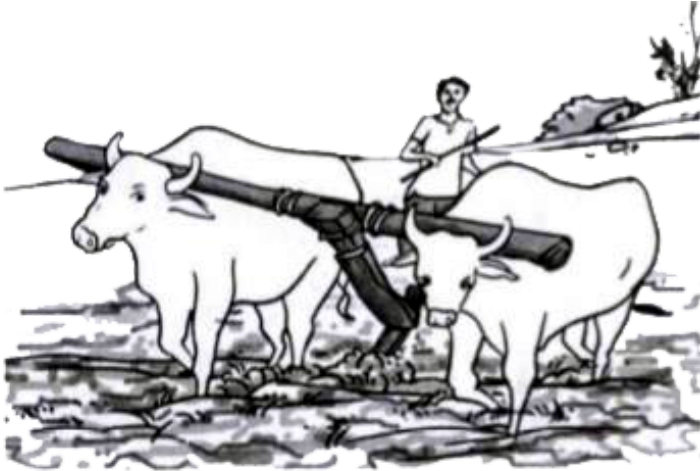
Answer: D



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33. Modern agriculture is carried out in a scientific and systematic way. The various activities or tasks which a farmer performs to produce a good crop are known as agricultural practices. A number of tools that are required during the course of different agricultural

practices are called implements. The given picture shows one of the process involved in the preparation of soil.



Identify the agricultural implement used in the given picture.

A. Leveller

B. Plough

C. Seed drill

D. All of these

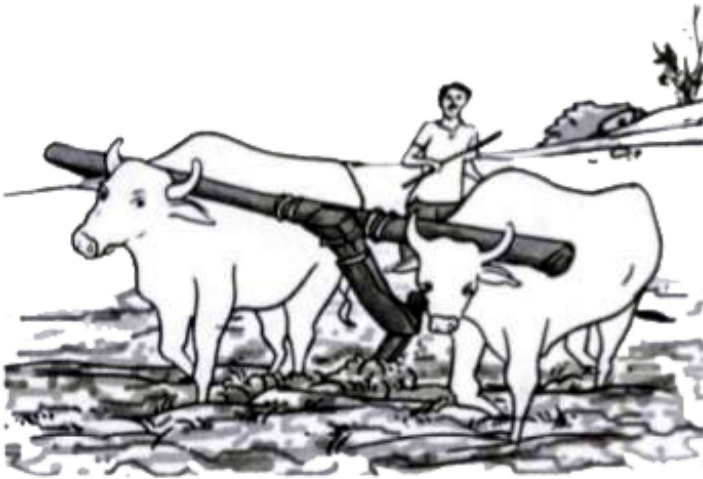
Answer: B



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34. Modern agriculture is carried out in a scientific and systematic way. The various activities or tasks which a farmer performs to produce a good crop are known as agricultural practices. A number of tools that are required

during the course of different agricultural practices are called implements. The given picture shows one of the process involved in the preparation of soil.



Name the process in which the given implement is used.

A. Tilling

B. Levelling

C. Sowing

D. Manuring

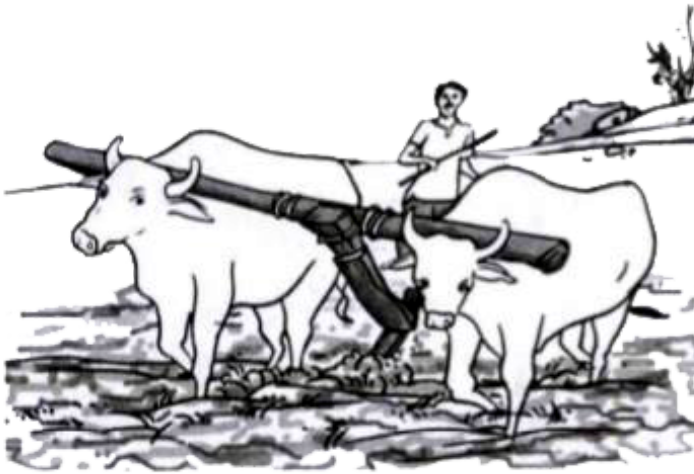
Answer: C



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35. Modern agriculture is carried out in a scientific and systematic way. The various activities or tasks which a farmer performs to produce a good crop are known as agricultural

practices. A number of tools that are required during the course of different agricultural practices are called implements. The given picture shows one of the process involved in the preparation of soil.



Which of the following is not an objective of ploughing?

A. It allows roots to penetrate deep into the soil.

B. It allows mixing of soil with fertilisers.

C. It prevents loss of moisture from soil.

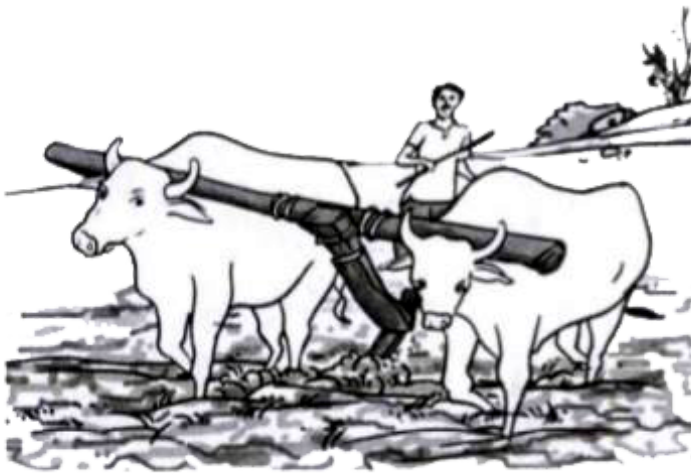
D. It promotes growth of microbes in soil.

Answer: C



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36. Modern agriculture is carried out in a scientific and systematic way. The various activities or tasks which a farmer performs to produce a good crop are known as agricultural practices. A number of tools that are required during the course of different agricultural practices are called implements. The given picture shows one of the process involved in the preparation of soil.



Why is it necessary to level the soil after the given process?

- A. To maintain pH of soil
- B. To remove weeds from soil
- C. To increase irrigation time
- D. To prevent soil erosion by wind or water

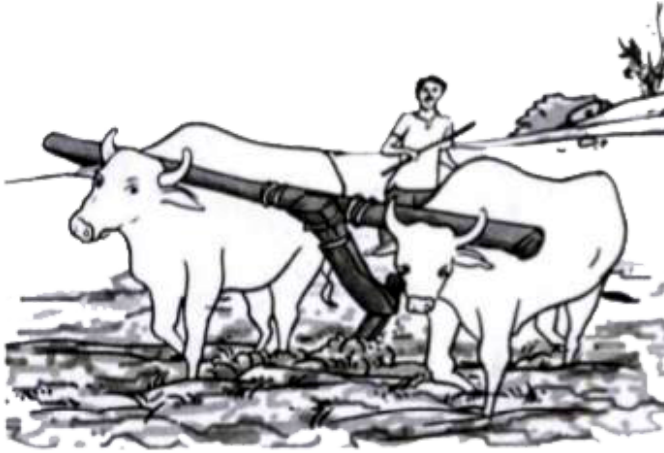
Answer: D



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37. Modern agriculture is carried out in a scientific and systematic way. The various activities or tasks which a farmer performs to produce a good crop are known as agricultural practices. A number of tools that are required during the course of different agricultural practices are called implements. The given picture shows one of the process involved in

the preparation of soil.



Name other implement used for this process.

A. Cultivator

B. Leveller

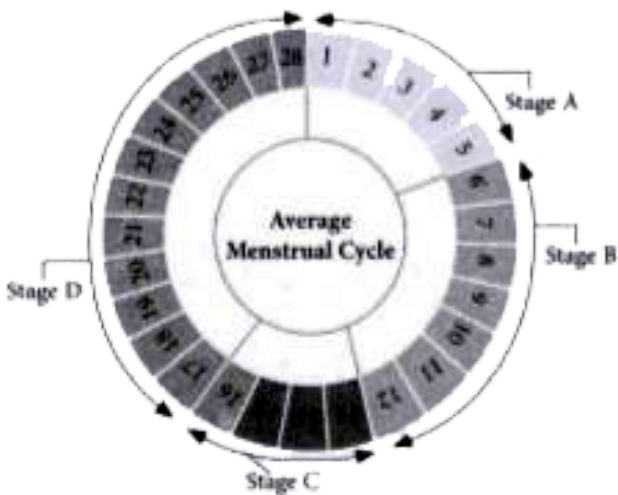
C. Sprinkler

D. Trowel

Answer: A



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38.

During which stage is a woman most fertile?

A. A

B. B

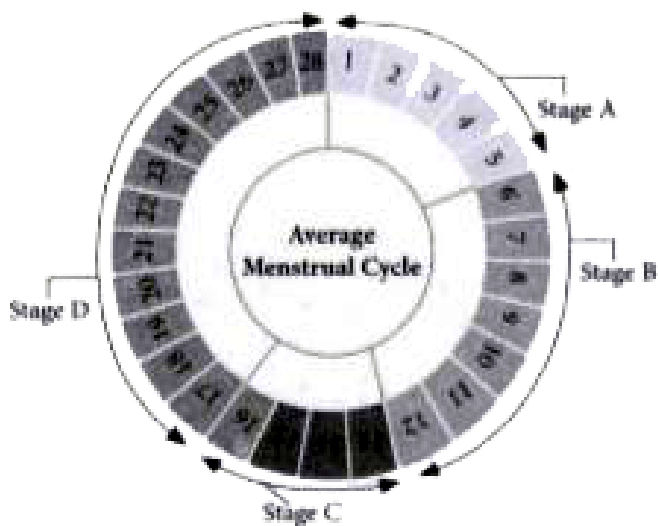
C. C

D. D

Answer: C



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39.

Match the following columns.

Column I

- (P) Stage B
- (Q) Stage D
- (R) Stage A
- (S) Stage C

Column II

- (i) Menstrual phase
- (ii) Proliferative phase
- (iii) Ovulatory phase
- (iv) Secretory phase

A. P-(ii) , Q-(iv), R-(i) , S-(iii)

B. P-(i), Q-(iii), R-(ii), S-(iv)

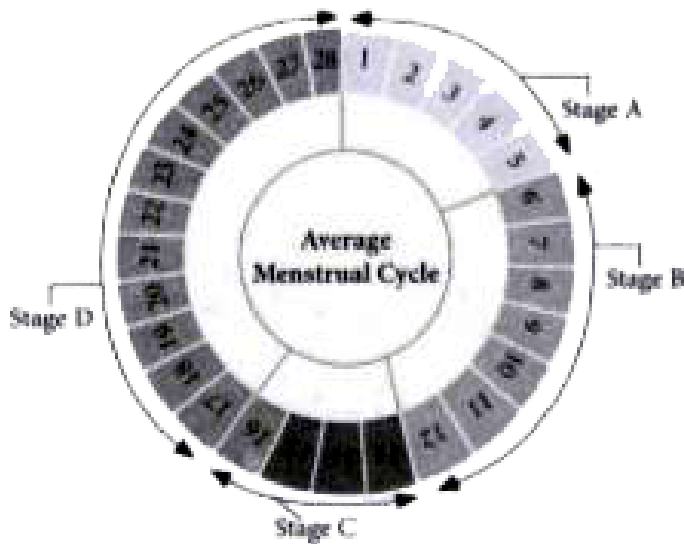
C. P-(iii), Q-(ii), R-(i), S-(iv)

D. P-(iv), Q-(i), R-(iii), S - (ii)

Answer: A



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40.

Which of the following events occur during stage D?

- A. Blood vessels of uterus lining break down

B. Wall of uterus becomes thicker by cell division

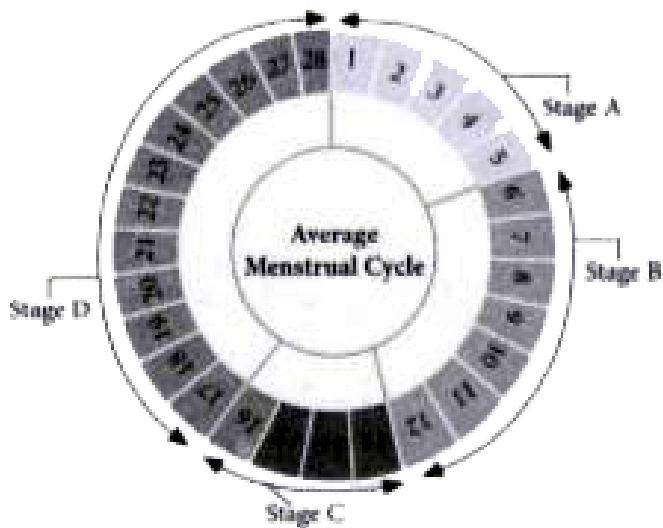
C. Fertilised ovum gets implanted.

D. Release of mature ovum

Answer: C



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41.

At which stage the lining of uterus sheds?

A. A

B. B

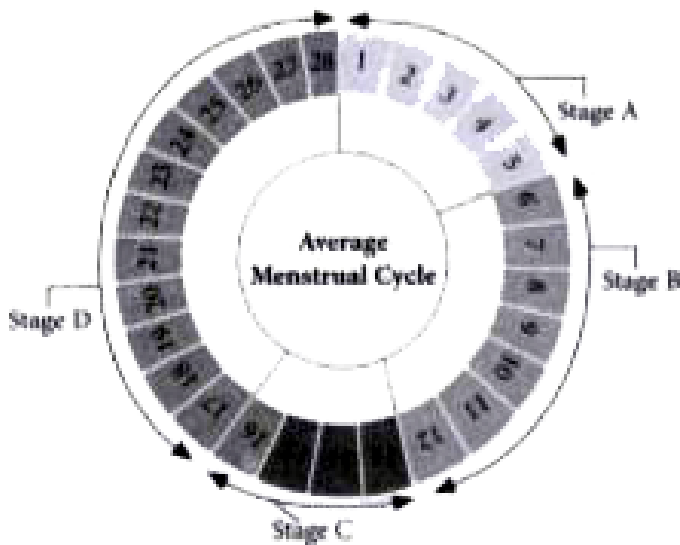
C. C

D. D

Answer: A



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42.

Proliferation of uterine wall occurs during days

A. $1 - 5$

B. $15 - 28$

C. $12 - 14$

D. $6 - 13$

Answer: D



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Section B

1. With the help of a labelled diagram describe the process of reproduction in Amoeba



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2. How do you differentiate between biosphere reserve and wildlife sanctuary?



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3. "Recycling of paper helps to reduce deforestation". Justify the statement.



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4. Explain the essential points that should be kept in mind while sowing the seeds.



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5. Why vaccination is also called immunisation?



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6. How do hormones help in the completion of life history of insects and frog?



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7. Enlist various health problems associated with air pollution.



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8. Write a short note on ozone depletion.



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Section C

1. What are weeds? How can they affect the growth of crop plants?



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2. Some food items are stored in refrigerators and deep freezers. Why?



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3. Write down the differences between prokaryotes and eukaryotes.



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4. What are semi-autonomous organelles?
Give two examples.



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5. Explain the technique of in-vitro fertilisation.



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6. What are the different secondary sexual characteristics of males and females?



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7. In what ways water can be made potable?



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8. What is the difference between greenhouse effect and global warming?



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Section D

1. Describe the different modern methods of irrigation system and also explain the purpose of irrigation.



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2. Write a note on the various methods used to replenish the nutrients in the fields.



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3. What are antibiotics? What precautions must be taken while taking antibiotics?



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4. Describe the male reproductive organs in humans with the help of a labelled diagram.



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5. Explain the different stages of development of human baby from a zygote.



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