



BIOLOGY

BOOKS - EDUCART PUBLICATION

SAMPLE PAPER 5

Section A

1. Artificial hybridisation involves :

A. Emasculation

B. Bagging

C. Pollen dusting

D. All of them

Answer:



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2. Which among these hormones are produced during human pregnancy ?

A. hCG

B. Relaxin

C. HPL (Human placental lactogen)

D. All of these

Answer:



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3. Determine the number of microspore mother cells that are necessary to produce 200 pollen grains ?

A. 100

B. 50

C. 150

D. 200

Answer:



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4. What will be the ploidy level of the cells in Tapetum ?

A. $2n$ - Diploid

B. n - Haploid

C. $3n$ - Triploid

D. Polyploid

Answer:



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5. The egg apparatus consists of :

A. Synergids and egg cell

B. Antipodals

C. Polar unclei

D. None of thses

Answer:



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6. A heterozygous female acts as a carrier of haemophilia and may transmit the disease to

.....

- A. Her sons
- B. Her daughters
- C. All her progeny
- D. None of them.

Answer:



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7. Among the terms listed below, those that are not technically correct names for a floral whorl are

(i) Andrecium (ii) Carpel

(iii) Corolla (iv) Sepal,

A. (i) and (iv)

B. (iii), and (iv)

C. (ii) and (iv)

D. (i) and (ii),

Answer:



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8. Sterilisation techniques are generally full proof methods of contraception with least side effects. Yet, this is the last option for the couples because

(i) It is almost irreversible

(ii) of the misconception that it will reduce sexual urge/drive

(iii) it is a surgical procedure

(iv) of lack of sufficient facilities in many parts of the country

Choose the correct option

A. (i) and (iii)

B. (ii) and (iii)

C. (ii) and (iv)

D. (i), (ii), (iii), and (iv)

Answer:



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9. Find the correct order of formation : Heart-shaped, Globular, Proembryo and Mature embryo.

A. Heart-shaped, Globular, Proembryo and
mature embryo

B. Globular, Heart-shaped, Proembryo and
Mature embryo

C. Proembryo, Globular embryo, Heart
shaped, Mature embryo

D. Heart- shaped, proembryo, Globular and
mature embryo.

Answer:



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10. Which was the last human chromosome to be completely sequenced

- A. Chromosome 1
- B. Chromosome 11
- C. Chromosome 21
- D. Chromosome X

Answer:



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11. Androgens stimulate :

A. Endometrial degeneration

B. Cirrhosis

C. Spermilysis

D. Spermatogenesis

Answer:



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12. observe and find out the example of pleiotropism among the following:

A. Inheritance of flower colour In Snapdrag-

on.

B. ABO blood grouping in humans.

C. Human skin colour.

D. Phenylketnouria.

Answer:



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Section B

1. Assertion (A) : Epididymis temporarily stores immature, non-matile sperms,

Reason (B) : Epididymic is divided into a number of compartments in testes.

A. Both A and R are true and R is the correct ex-planation of A

B. Both A and R are true but R is not the correct explanation of A

C. A is true but R is false

D. A is false but R is true

Answer:



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2. Assertion (A) : Leydig cells secrete Atrial natriuretic factor.

Reason (B) They are also known as nurse cells,

- A. Both A and R are true and R is the correct explanation of A
- B. Both A and R are true but R is not the correct explanation of A
- C. A is true but R is false
- D. A is false but R is true

Answer:



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3. Assertion (A) , The levels of hormones like oestrogens and progestrogens are increased during pregnancy.

Reason (R) : In order to ensure proper foetal growth, the production of these hormones is crucial .

A. Both A and R are true and R is the correct ex-planation of A

B. Both A and R are true but R is not the correct explanation of A

C. A is true but R is false

D. A is false but R is true

Answer:



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4. Vallisneria, Hydrilla, Zostera are the examples of Plants.

A. Water pollinated

B. Wind pollinated

C. Insect pollinated

D. None of thses

Answer:



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5. Which among these are spread by VIRUSES ?

(i) HEPATITIS B HPV Infection

(ii) HPV infection

(iii) AIDS

(iv) Genital herpes

A. (i) and (ii)

B. (ii) and (iv)

C. (i) , (ii), and (iii)

D. (ii), (iii), and (iv)

Answer:



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6. HPL stands for :

A. Human placental lactogen

B. Human placental luteum

C. Human perturition lactate

D. Human placental lactate

Answer:



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7. Banana is a

A. Fruit

B. True fruit

C. Parthenocarpic fruit

D. All of thses.

Answer:



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8. Endosperm development happens

Embryo development.

A. After

B. Before

C. During

D. Con't say

Answer:



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9. The condition caused by parthenium (carrot grass) in humans is a type of :

A. Pollen allergy

B. Skin infection

C. Pollen spread

D. Bacterial infection

Answer:



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10. Which among thses is not an opplication of DNA fingerprinting ?

A. Used as a tool in forensic science.

B. Evolution can be studied with the help of this technique by determining population and genetic diversities.

C. It is used for paternity testing to settle paternity disputes.

D. Used for predicting deviations or mutations in the genetic code in the future generations.

Answer:



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11. According to the chromosomal theory of inheritance, during meiosis homologous chromosomes synapse and get separated to pass into different cells. This is the basis of And And .,

A. Mutations and Segregation

B. Segregation and independent assortment

C. Linkages and Mutations

D. Dominance and independent assortment

Answer:



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12. In a test cross, the crossing takes place between,

- A. Two F_1 hybrids
- B. Two genotypes with recessive trait
- C. Two genotypes with dominant trait

D. Unknown dominant genotype with recessive parents.

Answer:



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13. Mother and father of a person with 'O' blood group have 'A' and 'B' blood group respectively. What would be the genotype of both mother and father ?

A. Mother is homozygous for 'A' blood group and father is heterozygous for 'A' blood group and father is homozygous for 'B'

B. Mother is heterozygous for 'A' blood group and father is homozygous for 'B'

C. Both mother and father are heterozygous for 'A' and 'B' blood group, respectively.

D. Both mother and father are homozygous for 'A' and 'B' blood group, respectively.

Answer:



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14. DNA (sequence of a single strand is) : 3-CGTCAGTCAGTCAGTCAGTC - 5' The complementary strand in 3' - 5' direction will be,

A. 5'- TCAGTCAGTCAGTCAGTCAG-3'

B. 3'-GACTGACTGACTGACTGACG-5'

C. 3'- GATCGATCGATCGATCGATC-5 '

D. 3' - CACTGACTGACTGACTGACTGACT - 5'

Answer:



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15. If the base sequence of a codon in mRNA is 5' – *AUG* – 3', the sequence of tRNA pairing with it must be

A. 5' - UAC - 3'

B. 5' - CAU - 3'

C. 5' - AUG - 3'

D. 5' - GUA - 3'

Answer:



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16. The codon which codes for the amino acid

X = Is AUG. The other function of this

codon is that it serves as the Y = Codon
in the process of translation.

A. X = Methionine, Y = Stop.

B. X = Methinoine, Y = Start

C. X = Guanine, Y = stop

D. X = Cytosine Y = Start

Answer:



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17. The short fragments of DNA produced in the During DNA replication process are know as Okazaki fragments.

- A. Leading strand
- B. Lagging strand
- C. Principle strand
- D. Okazaki strand

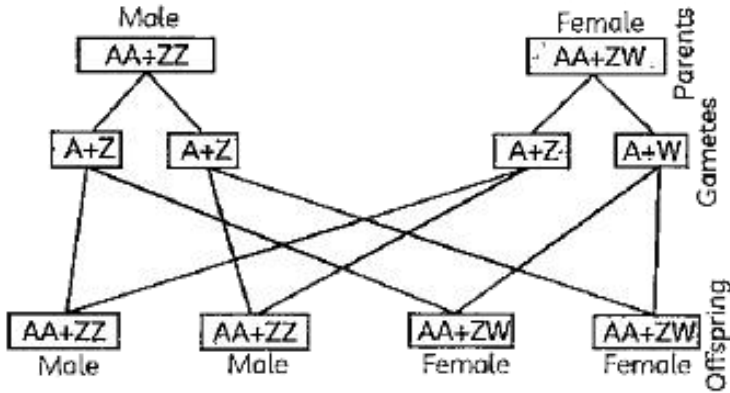
Answer:



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Section C

1. Observe the given figure and answer :



Which of the following might have this type of sex determination mechanism -

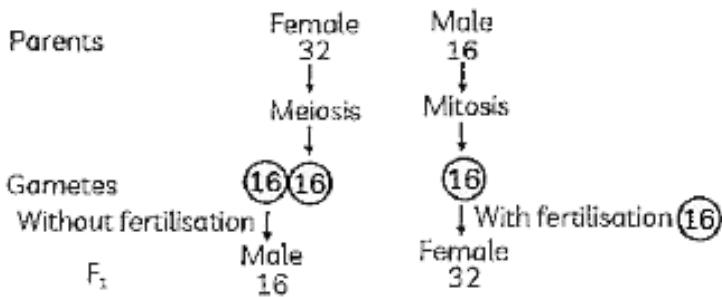
- A. Peacocks
- B. Bears

C. Raccoons

D. All the these .

Answer:

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Which of the following might have this type of sex determination mechanism :

A. Humans

B. Bears

C. Honey bees

D. All the these .

Answer:



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