

Biology Model Question Paper - 1

Question 1 : Populations are said to be sympatric when _____.

- (A) two populations are physically isolated by natural barriers.
- (B) two populations live together and freely interbreed to produce sterile offspring.
- (C) two populations share the same environment but cannot interbreed.
- (D) two populations are isolated but occasionally come together to interbreed.

Answer: (C)

Question 2 :Populations are said to be allopatric when _____.

- (A) they are physically isolated by natural barriers
- (B) they live together and breed freely to produce viable offspring
- (C) they are isolated but often come together for breeding
- (D) none of the above

Answer: (A)

Question 3 :Polyploid derived from two different species is called

- (A) Autopolyploid
- (B) Triploid
- (C) Allopolyploid
- (D) Monoploid

Answer: (C)

Question 4 :Pollen grains of a plant whose $2n = 28$ are cultured to get callus by tissue culture method. What would be the number of chromosomes in the cells of the callus?

- (A) 21
- (B) 14
- (C) 56
- (D) 28

Answer: (B)

Question 5 :Pinus belongs to the class _____.

- (A) Gentopsida
- (B) Cycadopsida
- (C) Coniferopsida
- (D) Sphenopsida

Answer: (C)

Question 6 :Pieces of plant tissue used in tissue culture is called

- (A) Explant
- (B) Somaclone

- (C) Inoculant
- (D) Clone

Answer: (A)

Question 7 :Palaeontologists unearthed a human skull during excavation. A small fragment of the scalp tissue was still attached to it. Only little DNA could be extracted from it. If the genes of the ancient man need to be analysed, the best way of getting sufficient amount of DNA from this extract is

- (A) Subjecting the DNA to polymerase chain reaction
- (B) Subjecting the DNA to gel electrophoresis
- (C) Treating the DNA with restriction endonucleases
- (D) Hybridising the DNA with a DNA probe

Answer: (A)

Question 8 :Ovule integument gets transformed into

- (A) seed
- (B) fruit wall
- (C) seed coat
- (D) cotyledons

Answer: (C)

Question 9 :Osteomalacia is a deficiency disease of

- (A) Infants due to protein energy malnutrition
- (B) Adults due to protein energy malnutrition
- (C) Adults due to Vitamin D deficiency
- (D) Infants due to Vitamin K deficiency

Answer: (C)

Question 10 :Nosema bombycis which causes pebrine in silk worms is a

- (A) Virus
- (B) Bacterium
- (C) Protozoan
- (D) Fungus

Answer: (C)

Question 11 :Name the hormone that has no role in menstruation.

- (A) LH

- (B) FSH
- (C) GH
- (D) TSH

Answer: (C)

Question 12 :Name the following having oxygen storing capacity

- (A) Myoglobin
- (B) Prophase II
- (C) Anaphase I
- (D) Metaphase II

Answer: (A)

Question 13 :Movement of tongue muscle is controlled by

- (A) facial nerve
- (B) trigeminal nerve
- (C) hypoglossal nerve
- (D) vagus nerve

Answer: (C)

Question 14 :Pick the mammal with true placenta

- (A) Kangaroo
- (B) Echidna
- (C) Platypus
- (D) Mongoose

Answer: (D)

Question 15 :Most of the endangered species are the victims of

- (A) Habitat destruction
- (B) Over-hunting
- (C) Acid rain
- (D) Competition with introduced species

Answer: (A)

Question 16 :Bovine spongiform encephalopathy is a disease caused by prions in a _____.

- (A) cow
- (B) sheep
- (C) man

(D) potato

Answer: (A)

Question 17 :Blood stains are found at the site of a murder. If DNA profiling technique is to be used for identifying the criminal, which of the following is ideal for use?

- (A) Erythrocytes
- (B) Leucocytes
- (C) Platelets
- (D) Serum

Answer: (B)

Question 18 :BT brinjal is an example of transgenic crops. In this, BT refers to

- (A) Bacillus tuberculosis
- (B) Biotechnology
- (C) Betacarotene
- (D) Bacillus thuringiensis

Answer: (D)

Question 19 :BY the statement 'survival of the fittest', Darwin meant that _____.

- (A) The strongest of all species survives
- (B) The most intelligent of the species survives
- (C) The cleverest of the species survives
- (D) The most adaptable of the species to changes survives

Answer: (D)

Question 20 :Casparian strips are present in the _____ of the root.

- (A) epiblema
- (B) cortex
- (C) pericycle
- (D) endodermis

Answer: (D)