Heredity and Evolution Class X
MCQ's

Tips- (i) On the given blank space just write the correct option

For ex- Q- Male reproductive part of flower is
(a) sepals
(b) petals
(c) stamens
(d) pistil
Ans- (space-answer)

MM:- 20

Q1- A Mendialian experiment consisted of breeding of tall pea plants bearing violet flowers with short pea plants bearing white flowers. The progeny all bore violet flowers but almost half of it were short. This suggests that the genetic make up of tall parent can be depicted as :
A)TTWW
B) TTww
C) TtWW
D) TtWw

Q2- Two pink coloured flowers on crossing resulted in 1 and 2 pink and 1 white flower progeny. The nature of cross will be :
A) Double fertilization
B) Self pollination
C) Cross pollination
D) No fertilization

Q3- The two versions of trait which are brought in by female and male gametes are situated at :
A) Copies of same chromosomes
B) Two different chromosomes
C) Sex chromosomes
D) Any chromosomes

Q4- From below, select the character that is acquired not inherited ?
A) Colour of eye
B) Colour of skin
C) Size of body
D) Nature of hair

Q5- A cross between tall plant (TT) and short pea plant (tt) is inherited in progeny that were all tall plants because :
A) Tallness is dominant character
B) Shortness is dominant character
C) Tallness is recessive trait
D) Height of pea plant is not governed by gene T or t

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Q6- If a round green seeded plant (RRyy) is crossed with wrinkled, yellow seeded plant (rrYY),the seeds produced in F1 are :

A) Round and yellow
B) Round and green
C) wrinkled and green
D) wrinkled and yellow

Q7- Select the correct statement.

A) Tendril of pea plant and phylloclade of opuntia are homologous
B) Tendril of pea plant and phylloclade of opuntia are analogous
C) wings of birds and limbs of lizards are analogous
D) wings of birds and wings of bat are homologous

Q8- In peas, a pure tall plant (TT) is crossed with a short plant (tt). The ratio of pure tall to short plants in F2 is ?

A) 1:3
B) 3:1
C) 1:1
D) 2:1

Q9- New species may be formed if _____.

A) DNA do not undergoes significant changes in germ cells
B) Chromosomes number changes in gametes
C) There is no change in genetic material
D) Mating does not take place :

Q10- The number of sex chromosomes in zygote of humans is_____.

A) 1
B) 2
C) 3
D) 4

Q11- Select the group which shares the maximum number of common characters?

A) Two individuals of a species
B) Two species of genus
C) Two genera of a family
D) Two genera of two families

Q12- In human males all the chromosomes are paired perfectly except one. These unpaired chromosomes are _____.

A) large chromosomes
B) small chromosomes
C) Y chromosomes
D) Z chromosomes

Q13- If the fossil of an organism is found in the deeper layers of earth, then we can predict that _____.

A) The extinction of organism has occured recently

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B) The extinction of organism has occured years ago
C) The fossil position in the layers pf earth is not related to its time of extinction
D) Time of extinction can not be determined

Q14- In evolutionary terms , we have more in common with _____.
A) A chinese boy
B) A chimpanzee
C) A spider
D) A bacteria

Q15- An example of homologous organs are _____.
A) Our arm and dog s fore leg
B) Our teeth and elephants tusks
C) Potato and runners of grass
D) All

Q16- According to evolutionary theory, formation of a new species is generally due to _____.
A) Sudden creation of nature
B) Accumulation of variations over several generations
C) Clones formed during sexual reproduction
D) Movement of individuals from one habitat to another

Q17- Some dinosaurs had feathers although they could fly but birds have feathers that help them to fly. In the context of evolution this means that ————-.
A) Reptiles have evolved from birds
B) There is no evolutionary connection between reptiles and birds
C) Feathers are homologous organs in both structures
D) Birds have evolved from reptiles

Q18- Which of the following is totally impossible outcome of Mendel's Experiment?
A) 3 tall 1 short
B) 24 tall 8 short
C) 8 tall 0 short
D) 4 tall 1 medium height

Q19- Which of the following is not a direct conclusion that can be drawn from Mendel's Experiment?
A) Only one parental trait is expressed
B) Two copies of each trait is inherited in sexually transmitted organism
C) For recessive trait to be expressed , both copies should be identical
D) Natural selection can alter frequency of inherited trait

Q20- Which section of DNA provides information for one protein?
A) Nucleus
B) Trait
C) chromosome
D) gene

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