GENETICS

INTERNAL QUESTION BIT BANK

1.Law of Mendel which is not completely applicable

(a) Co-dominance

b)Law of dominance

C)Law of segregation

d)Law of independent assortment

2.In Mirabilis a hybrid for red (RR) and white (rr) flower produces pink (Rr) flower. A plant with pink flower is crossed with white flower. The expected phenotypic ratio is

(a) red: pink (1: 1)

(b) red: white (3 : 1)

(c) pink : white (1: 1)

(d) red: pink: white (1: 2: 1)

3. Which one of the following traits studies by Mendel in garden pea was a recessive character?

(a) Green pod colour

(b) Green seed colour

(c) Yellow seed colour

(d) Axial flower position

4.Laws of inheritance were given by

(a) Mendel

(b) Lamarck

(c) Darwin

(d) Correns

5.Mendel did his experiments on

(a) Cajanus cajan

(b) Pisum sativum

(c) garden pea

(d) sweet potato

6. The reason why pea plants were suitable than dogs for Mendel's experiments?

(a) Dogs have many genetic traits

(b) Pea plants can be self-fertilized

(c) There are no pedigree records of dogs

(d) The pea plants favour cross-fertilization

7. Which of the following is the monohybrid ratio?

(a) 3: 1

(b) 9:7

(c) 1:2

(d) 9:3:3:1

8.If a homozygous red flowered plant is crossed with a homozygous white flower plant, the offspring will be

(a) all red flowered

(b) half red flowered

(c) half white flowered

(d) all white flowered

9. In a monohybrid cross, the genotypic ratio of f2 is

(a) 3:1 (b)

1:2:1

(c) 4 : 0

(d) 1:1:1:1

10. A woman with straight to be ate with a man with curly hair who is known to be heterozygous for that trait. What is the chance that their child will have curly hair?

(a) No chance

(b) One in two

(c) It is certain

(d) One in four

11. The back cross of F1, hybrid with the recessive parent is called

(a) test cross

(b) monohybrid cross

(c) Punnett square cross

(d) dominant-recessive cross

12. Which of the following cross is used to determine heterozygosite or homozygosite of parents?

(a) Test cross

(b) Back cross

(c) Dihybrid cross

(d) Monohybrid cross

13. Mendel's first law is called

(a) law of variation

(b) law of segregation

(c) law of inheritance

(d) law of independent assortment

14. Mendel's principle of segregation was based on the separation of alleles in the garden pea during

(a) pollination

(b) flower formation

(c) seed formation

(d) embryonic development

15. A cross involving f1 hybrid and a double recessive parent is called

(a) test cross

(b) dihybrid cross

(c) multiple cross

(d) monohybrid cross

16. Incomplete dominance is found in

(a) Pisum sativum

(b) Antirrhinum majus

(c) Both (a) and (b)

(d) None of these

17.A man with blood group B marries a woman with blood group A and their child is having group B. What is the genotype of the child?

(a) IABB

(b) IBIB

(c) IBII

(d) IAII

18. ABO blood group is one of the good example for which of the following?

(a) Epistasis

(b) Co-dominance

(c) pleiotropy

(d) Incomplete dominance

19. Variations occur mostly due to

(a) linkage

(b) segregation

(c) nutrition

(d) crossing-over

20. Emasculation of flower body is achieved by removal of

(a) anthers (b)

carpels

(c) flowers

(d) perianth

Fill in the blanks

21. Law of segregation of gametes was proposed by _____

22. Phenotype ratio of dihybrid test cross is _____

23.When cross is made between two species of the same genus, then the cross is known as_____

24. If an individual with type O, blood mates with an individual with type AB blood, then_____ are the possible blood types of their offspring.

25. A _____ is a hereditary factor and the fundamental unit of inheritance.

26. If a diploid cell contains six chromosomes, then _____ possible random

27.In the human ABO blood system, the alleles A and B are dominant to O. Then _____ will be number of different possible genotypes?

28. An organism with two identical alleles for a given trait _____

29. The genetic, genotype and phenotype were introduced by _____

30. Hybrids are generally superior to parents due to _____

Ouestion and answers

1. Describe Mendel laws?
2. Describe one example of multiple allelism?
3, Define pleiotropisms with example?
4. Explain about incomplete dominance with example?
5. Define epitasis and dominant epitasis with example?