

FBQ1: In quantitative inheritance, it has been shown that a trait is controlled by \_\_\_\_\_

Answer: Multiple genes

FBQ2: Male bees (drones) develop by \_\_\_\_\_ from unfertilized eggs.

Answer: Parthenogenesis

FBQ3: A condition where a pair of chromosomes failed to separate during cell division is described as \_\_\_\_\_

Answer: Non-disjunction

FBQ4: A male that possess female characteristics externally shows a condition known as \_\_\_\_\_

Answer: Testicular feminisation

FBQ5: An organism producing two different types of sperms is said to be \_\_\_\_\_

Answer: Heterogametic sex

FBQ6: An individual with genes that express themselves regardless of whether they are recessive or dominant is said to be \_\_\_\_\_

Answer: Hemizygous

FBQ7: A situation where a grandfather transmits his X chromosome to his grandson through his daughter is referred to as \_\_\_\_\_

Answer: Crisscross

FBQ8: A dark staining body in the interphase nucleus of most female somatic cell is called \_\_\_\_\_

Answer: Barr body

FBQ9: The gene that is transmitted from father to the son only is described as \_\_\_\_\_

Answer: Holandric gene

FBQ10: \_\_\_\_\_ are the genes that are present in both sexes but only express themselves in one sex

Answer: Sex-limited traits

FBQ11: Gametogenesis involves \_\_\_\_\_ and \_\_\_\_\_

Answer: Oogenesis, spermatogenesis

FBQ12: The sex cell which produces only one type of gamete is described \_\_\_\_\_

Answer: Homogametic cell

FBQ13: The members of different gene pairs failed to recombine at random at the time of segregation during gamete formation. True or False?

Answer: False

FBQ14: Variations in the number of individual chromosomes which give unbalanced set of chromosome is known as \_\_\_\_\_

Answer: Aneuploidy

FBQ15: The factors which are transmitted from parent to offspring were first called gene by -----

Answer: Mendel

FBQ16: According to chromosome theory, different chromosomes carry the same genes. True or False

Answer: False

FBQ17: In which year did Hertvig and Straburger advanced the theory that the cell nucleus must contain the hereditary materials?

Answer: 1885

FBQ18: The ratio of the different genotypes among the progeny of a cross is referred to as \_\_\_\_.

Answer: Genotypic ratio

FBQ19: ----- process bring about an equal distribution of the nuclear materials important for the physiological and developmental process of the cell

Answer: Mitotic

FBQ20: A cross in which the parents differ with respect to only one trait controlled by only one gene is known as \_\_\_\_.

Answer: Monohybrid Cross

FBQ21: According to \_\_\_\_\_, there is a segregation of alleles such that only one member of a pair enters the gamete.

Answer: Mendel

FBQ22: During the formation of gametes, the two alleles of a given gene assort independently on non-homologous chromosomes. A statement of which of the Mendel's law?

Answer: second law of inheritance

FBQ23: When there are n-pairs of chromosomes, how many types of gametes can be produced during meiotic cell division?

Answer:  $2^n$  types of gametes

FBQ24: When an unbiased coin is tossed the probability that it will come up heads is\_\_\_\_\_

Answer:  $\frac{1}{2}$

FBQ25: What is the probability that if a coin is tossed, it shall get either a head or a tail?

Answer: The probability is 1

FBQ26: When two alleles are identical, the genotype is said to be \_\_\_\_\_

Answer: Homozygous

FBQ27: Probability is applicable to genetics when considering Mendel's \_\_\_\_\_ of inheritance

Answer: Second law

FBQ28: When small phenotypic classes are so small that they are not sharply distinguishable; this is called \_\_\_\_\_

Answer: Continuous variation

FBQ29: The probability of occurrence in one trial of either of two mutually exclusive events is the sum of Probability of individual \_\_\_\_\_

Answer: occurrence

FBQ30: The phenotypic expression of an organism is entirely attributable to the environment. True or False?

Answer: False

FBQ31: The first significant breakthrough on the problem of quantitative inheritance was by \_\_\_\_\_ in 1909

Answer: Nilsson-Ehle

FBQ32: If two heterozygotes are crossed, the number of ----- is larger than the number of phenotypic classes wherever the number of loci at which they differ is greater than one.

Answer: genotypic classes

FBQ33: If we assume that four loci are involved in skin colour in man; A1, B1,

C1 and D1 alleles contributing to pigment production while A2, B2, C2 and D2 are non-contributing. A marriage between pure black and pure white individuals would produce mulatto children with intermediate skin colour. What will be their genotype?

Answer: A1 A2 B1 B2 C1 C2 D1 D2

FBQ34: In 1891 a German biologist called \_\_\_\_\_ observed that in certain insects, the nuclei of half of the sperm contain an extra structure.

Answer: Hermann Henking

FBQ35: One of the most clear cut pieces of evidence illustrating sex-linked inheritance was reported by Morgan in 1910 from crosses with \_\_\_\_\_

Answer: *Drosophila melanogaster*

MCQ1: Who stated that million, million spermatozoa All of them alive?

Answer: Aldous Huxley

MCQ2: Which year was the term genetics coined?

Answer: 1906

MCQ3: The hereditary factor was called gene by -----

Answer: Johannsen

MCQ4: Who theorised that small representative of elements of all parts of the parental body are concentrated in the semen

Answer: Hippocrates

MCQ5: Which year was hereditary factor called gene?

Answer: 1909

MCQ6: Who advanced the theory that the father's semen provides the plans according to which the amorphous blood of the mother is to be shaped into the offspring?

Answer: Aristotle

MCQ7: In which century was AURA SEMINALIS first mentioned?

Answer: 17th Century

MCQ8: Which theory stated that either the egg or sperm contains the entire organism in a miniaturised but perfect form?

Answer: Preformation theory

MCQ9: Who stated that adult parts arise as a result of a gradual transformation or differentiation of embryonic tissues into increasingly specialised tissues?

Answer: Karl Ernst Von Baer

MCQ10: Who thought that mysterious vital forces were responsible for what he thought was a de novo origin of adult parts.

Answer: Wolff

MCQ11: Which theory was proposed to replace the theory of pangenesis?

Answer: Theory of Germplasm

MCQ12: Who proposed the theory of Germplasm?

Answer: August Weismann

MCQ13: Which of these scientists was not involved in the description of the process of fertilisation which includes the fusion of the egg and the sperm nuclei?

Answer: Fleming Van Beneden

MCQ14: ----- and ----- developed the theory that the nucleus contains hereditary materials

Answer: Hertwig and Strasburger

MCQ15: Who postulated that offspring receives two particles one from each parent but exhibits only one?

Answer: Pierre-Louis Maupertuis

MCQ16: ----- stated that adult parts arise as a result of a gradual transformation or differentiation of embryonic tissues into increasingly specialised tissues

Answer: Karl Ernst Von Baer

MCQ17: Which year did Mendel publish his result after he reported it at a Natural science meeting?

Answer: 1866

MCQ18: Study in U.S showed that ----- to ----- male births are affected by Klinefelter's syndrome

Answer: 1/200 to 1/400

MCQ19: Which of these chromosomes is not Klinefelter male?

Answer: XXXX

MCQ20: Which theory stated that either the egg or sperm contains the entire organism in a miniaturised but perfect form?

Answer: Preformation theory

MCQ21: The sugars and phosphates in nucleic acids are connected to each other in

Answer: phosphodiester bond.

MCQ22: The sub-microscopic units which control the life processes of cell is called

Answer: Gene

MCQ23: What is polyspermic embryo?

Answer: It is an embryo fertilised by more than one sperm

MCQ24: The effect of dispermy is

Answer: Production of four asters in the zygote

MCQ25: How many blastomeres are formed in the first division of dispermic zygote?

Answer: 4

MCQ26: Which of these is not a consequence of polyspermic embryo?

Answer: Four centrioles are introduced into the egg

MCQ27: Who discovered that the abnormal development of dispermic embryo was the result of the erratic chromosome distribution?

Answer: Boveri

MCQ28: Apart from Non-disjunction of chromosomes, one of the following is a cause of TRISOMY condition.

Answer: Trans-location

MCQ29: Cell theory was credited to -----

Answer: Schleiden and Schwann

MCQ30: Establishment of comparative biochemistry was in the year

Answer: 1940

MCQ31: In what year was the alga Spirogyra described?

Answer: 1674

MCQ32: The cell was first discovered and named by \_\_\_\_\_

Answer: Robert Hooke

MCQ33: Cell was discovered in

Answer: 1665

MCQ34: Which of these statements about cells is not correct?

Answer: Cells form by free cell formation, similar to the formation of crystals

MCQ35: Who stated that "All cells arise from preexisting cells"

Answer: Rudolph Virchow