PAST PAPER

1. In sickle cell anemia, the abnormal hemoglobin differs from normal hemoglobin in:

A. a single amino acid
B. the amount of coenzymes
C. the number of iron atoms
D. the number of magnesium atoms
E. the number of genes

2. A woman with normal colour vision, whose father was red green colour blind, married a red green colour blind man. What is the probability of her first born child being red-green colour blind? (Lumhs 2014)

A. 1.0
B. 0.75
C. 0.66
D. 0.50
E. 0.25

3. Albinos have a genotype of aa, while all other members of population are either AA or Aa. The offspring of a cross between a heterozygous male and albino female would be

A. 100 % albino
B. 100 % normal
C. 50 % normal, 50 % albino
D. 25 % normal, 75 % albino
E. 75 % normal, 25 % albino

4. A black male mouse (I) is crossed with a black female mouse, and they produce 15 black and 5 white offspring. A different black male mouse (II) is crossed with the same female, and the offspring from the mating are 30 black mice. Which of the following must be true? (DMC 2007)

A. The female mouse is homozygous
B. Male mouse it is heterozygous
C. Two of the mice are heterozygous
D. All the progeny of mouse II are homozygous
E. All three mice are homozygous

Questions 5 - 6 refer to the following statement:
Father Mother
$X_{(normal)}$ / $Y_{(normal)}$ $X_{(hemophilia)}$ / $X_{(normal)}$
With reference to the parents whose genotypes are shown above (SBBMC LYARI 2011, 2013)

5. _____ % of children is likely to be male.

A. 0
B. 25
C. 50
D. 75
E. 100

6. The possibility of a female child with phenotype: hemophilia is _____ %.

A. 0
B. 25
C. 50
D. 75
E. 100

7. If the male blood type A marries a female with blood type B, which of the following types would be impossible for a first generation child? (SBBMC LYARI 2011)

A. type B
B. type A
C. type O
D. type AB
E. all types are possible

8. The process of replacing or supplementing the defective allele with a functional, normal allele is known as _____. (DMC 2012)

A. allele transplant
B. physiotherapy
C. gene therapy
D. mutation
E. cloning

9. In cats, the genes controlling coat-colour are co-dominant (incompletely dominant) and are carried on the X chromosomes. When a black female was mated with a ginger male the resulting litter consisted of black male and tortoise-shell female kittens. What phenotypic ratio would be expected in the F_2 generation? (DMC 2012)

A. 1 black male: 1 ginger male: 2 tortoise-shell females
B. 1 black male: 1 ginger male: 1 tortoise-shell female: 1 black female
C. 2 black males: 1 tortoise-shell female: 1 ginger female
D. 1 black male: 1 tortoise-shell female: 1 ginger female: 1 black female
E. 2 black males: 1 tortoise-shell female: 1 black female

10. Mendel perform his famous experiments of Heredity on: (Lumhs 2011)

A. Maize B. Bean plants C. Garden pea
D. Mirabilis plant E. Whea

11. A man who is normal for color vision marries a normal heterozygous woman. What is the chance of their son being color blind? (Lumhs 2011)

A. 0%
B. 25%
C. 50%
D. 75%
E. 100%

12. A red-flowered plant crossed with a white-flowered plant of the same species, produced F_1, plants which all had pink flowers. Self-pollination of the F_1 plants produced an F_2 generation in which 40 plants had red flowers, 80 had pink flowers and 40 had white flowers. (SBBMC LYARI 2013)
What does this experiment demonstrate?

A. incomplete dominance
B. continuous variation
C. a dihybrid cross
D. linkage
E. multiple alleles

13. Which one of the following genotype cannot occur amongst the offspring from a mating between a person of blood group A and a person of blood group B?

A. AA
B. AB
C. A
D. B
E. O

14. In fruit flies, the gene for wing type is located on an autosomal chromosome. The allele for wild-type wings is dominant over the allele for vestigial wings. If a homozygous dominant male fly is crossed with a female with vestigial wings, what percentage of their female progeny is expected to have wild-type wings?(Lumhs 2012)

A. 0 %
B. 25 %
C. 50 %
D. 75 %
E. 100 %

15. The total aggregate of the genes in a population is called: (LUMHS 2010)

A. Gene variation
B. Gene code
C. Gene mutation
D. Gene pool
E. Gene trait

16. If the new born babies get mixed up in a hospital, how could you determine their parentage from the information given below? (Lumhs 2009, DMC 2010)

Baby I	**Type O**
Baby II	**Type B**
Mrs. Ali	**Type A**
Mr. Ali	**Type AB**
Mrs. Ahmad	**Type A**
Mr. Ahmad	**Type A**

A. Baby I is the child of Mr. and Mrs. Ahmad
B. Baby I is the child of Mr. and Mrs. Ali
C. Baby II is the child of Mr. and Mrs. Ahmad
D. Both Baby I and Baby II are the children of Mr. and Mrs. Ali
E. Inadequate Data

17. The four children of two parents each have a different blood group of the ABO series. What were the blood groups of the parents? (SBBMC LYARI 2014)

A. A and A
B. A and B
C. A and O
D. B and O

18. In some of Mendel's experiments, three quarters of the offspring showed the dominant trait. Which of the following is most likely to be true about the parents? (SBBMC LYARI 2014)

A. Both were recessive
B. Both were heterozygous
C. Both were dominant
D. One was heterozygous; the other, homozygous dominant
E. One was recessive; the other,homozygous dominant

19. A species of rose plants can be purchased as red, white, or pink flowering plants. Assuming that large petals is a dominant trait, which is the genotype of a plant with pink flowers and large petals? [W = white flowers, w = red flowers, L = large petals, l = small petals] (Lumhs 2013)

A. WwLL
B. WWLL
C. WWLl
D. wwLL
E. wwll

20. According to normal genetic prediction a color-blind girl ($X_c X_c$) must have had a father whose genetic makeup was: (Lumhs 2013)

A. $X^c X^c$ B. $X^n Y^c$
C. $X^c Y^c$ D. X Y E. X^c

21. What are the phenotypes of the parents of a colour blind son and non-carrier daughter with normal colour vision?

Father Mother

A. A. carrier normal

B. B. colour-blind carrier

C. C. colour-blind carrier

D. D. normal carrier

E. E. normal colour-blind

22. Haemophilla is caused by a sex -linked, recessive allele. Two parents have a Haemopiliac son, a normal son a Haemophiliac daughter. (Dmc 2010) What are the most likely genotype of the parents?

	Mother	Father
A.	$X^H X^h$	$X^h Y$
B.	$X^H Y^h$	$X^H Y$
C.	$X^h X_h$	$X^H Y$
D.	$X^H Y^H$	$X^h Y$

E. None of the above

23. When hybrids are crossed, the genotype ratio of the offspring is (IBA 2001, Lumhs 2009)

A. 1: 1

B. 3: 1

C. 1: 2: 1

D. 4: 1

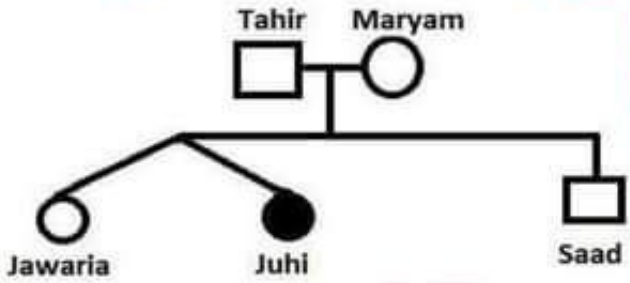
E. 3: 2: 1

24. Cystic fibrosis patients lack a gene that codes tor a transmembrane carrier of:

A. Na^+ ions B. K^+ ions

C. Cl^- ions D. Ca^{2+} ions

E. Mg^{2+} ions



25. In the pedigree of a family shown above, brown eyes are indicated as ○ and blue eyes as ● Jawaria and Juhi are twins. From this chart, it can be determined that:

A. Tahir and Mary are homozygous for brown eyes

B. Jawaria and Juhi are identical twins

C. Juhi is heterozygous for blue eyes

D. Juhi is homozygous for blue eyes

E. Jawaria and Saad are homozygous for brown Eyes

26. Which of the following is an example of discontinuous variation: (IBA 2000)

A. Range of height of pea plants 30-50 cm

B. Offspring including 2 males and 3 females

C. Pea plants grown in darkness are yellow

D. Adult human weight ranges from 50-95 kg

27. The possible result of crossing between heterozygous (T t) and homozygous dwarf (tt) is.

A. 50% tall and 50% Dwarf (Baharia 2002)

B. 100% tall

C. 100% dwarf

D. 75% tall and 25% dwarf

28. The tendency of gene in chromosomes to remain together is called: (Baharia 2002)

A. Crossing over

B. Synapsis

C. Terminalization

D. Linkage

29. The proportion of different alleles of a gene in a population is termed as:

A. Allele frequency

B. Genetic drift

C. Gene frequency

D. Allelomorph

30. A man with blood group 'A' marries a woman with blood group 'B', child can have (NTS 2006)

A. A and B

B. B and AB

C. A and AB

D. A, B, AB and O

31. In a population 36% people have Blue Eyes"; allele frequency for blue is (NTS 2006)

A. 36%

B. 40%

C. 60%

D. 64%

32. O Group is universal donor because (DMC 2007)

A. It has both A & B Antigens B. No Antigens

C. A antigen D. B antigen

33. In sickle cell anemia

A. Valine is replaced by Glutamic Acid

B. Glutamic Acid is replaced by Valine

C. Glutamic Acid is replaced by Adenine

D. B-chain is replaced by Valin

34. Skin color, height and intelligence vary in different people due to: (DMC 2007)
A. Pleiotropy
B. Epistasis
C. polygenic inheritance
D. Crossing over

35. When phenotypically tall plant is crossed with pure dwarf plant what cross is this: (DMC 2008)
A. Test
B. Monohybrid
C. Dihybrid
D. Multiple cross

36. If a color blind person marries a homozygous normal female, what are the chances of sons to be color blind?
A. 50%
B. 25%
C. 100%
D. None of these

37. A man who is normal for color vision marries a normal heterozygous woman chance of their son being color blind is: (Lumbs 2011)
A. 0%
B. 100%
C. 50%
D. 25%

38. The gene pool of a population tends to remain stable if:
A. Mating is at random
B. There is extreme migration
C. There is selected mattings
D. There are frequent mutations

39. For a guinea pig, black coat (B) is dominant over white coat (b). If 2 guinea pigs mate and produce 75 offspring with black coats and 25 white which coats the genotypes of the presents were most likely:
A. BB x BE
B. Bb x BB
C. Bb x Bb
D. Bb x bb

40. If the women carrying the trait for color-blindness marries a color-blind man that are the chances they will have a color blind son:
A. 100 B. 75
C. 25 D. 50

41. Father has dark eyes and the mother has blue. The possibility of the color of eyes of the offspring:
A. Blue
B. Brown
C. Grey
D. Blue or brown

42. The blood type known as a universal donor is:
A. A
B. B
C. AB
D. O

43. How do tall pea plants produce short pea plants?
A. Mutation
B. Independent assortment
C. Linkage
D. Segregation

44. Genetic drift is the change in allele frequency of small population simply by:
A. Mutation
B. Natural selection
C. Migration
D. Chance

45. The branch of biology, which deals with heredity and _____ is known as genetics.
A. Crossing over
B. Variation
C. Linkage
D. Mutation

46. In pea plants, all of the following are examples of dominant traits except
A. Round seed
B. Yellow seed
C. Tallness
D. Yellow pods

47. Drosophila is useful for all of the following reasons except:
A. It breeds every 10 days
B. It produces many off springs
C. It has no linked character
D. It has four pairs of chromosomes

48. In the Himalayan rabbit, low temperatures cause the growth of:
A. White fur
B. Black fur
C. White paws
D. Black genes

49. A change in genes is called a
A. Genotype
B. Phenotype
C. Cross-over
D. Mutation

50. A test cross is performed:
A. Only with hybrids
B. Only with pure types
C. To determine whether an organism is heterozygous or homozygous dominant
D. Only between recessives

51. If two parents who are hybrid for brown eyes have four children, the eye color of the children may be:
A. all brown
B. 3 brown, 1 blue
C. 2 brown, 2 blue
D. any of the above combination

52. The hemoglobin of people with sickle-cell anemia differs from normal hemoglobin one:
A. Protein
B. Gene
C. Amino acid
D. Monosaccharide

53. All of the following human traits are recessive except:
A. curly hair
B. albinism
C. light hair color
D. attached ear lobe

54. Neurospora has been useful in illustrating:
A. b) RNA action
B. DNA action
C. single gene action
D. test cross

55. The normal color of eye is due to:
A. Recessive alleles
B. Dominant alleles
C. Recessive gene
D. Dominant gene
E. Holographic genesis

56. The gene for eye color is located on;
A. X chromosomes B. Y chromosomes
C. Both A & B D. None of them

57. Which process during meiosis causes variation?
A. Formation of 4 daughter calls B. Synapsis
C. Fertilization of gamete D. Formation of haploid gamete

58. The law of Dominance is illustrate in the garden pea by: (DMC 2009)
A. Homozygous tall x heterozygous tall
B. Heterozygous tall x heterozygous tall
C. Homozygous tall x Homozygous tall
D. Pure short x pure short
E. Homozygous tall x pure short

59. In the Hardy-Weinberg principle, $p^2 + 2pq + q^2 = 1$, q^2 represents the frequency of the:
A. Homozygous dominant
B. Heterozygous dominant
C. Heterozygous recessive
D. Homozygous recessive
E. Blended genes

Questions 60-62

Hemophilia is a disorder in which blood fails to clot. Saad, a male hemophiliac, marries Sara, a normal woman and together they have four children, two boys (Ahmed and Ali) and two girls (Alia and Ayesha). None of the children display the symptoms of hemophilia. Ahmed, Ali, Alia, and Ayesha all marry normal individual and have children. Hone of Ahmed's or Ali's children, male or female, display symptoms of hemophilia, but the sons of Alia and Ayesha display symptoms of hemophilia while the daughters of Alia and Ayesha do not

60. Which of the following best explains the reasons that Ahmed, All, Alia, and Ayesha do not display symptoms of hemophilia, even though their father, Saad, is a hemophiliac? (DMC 2009)
A. Hemophilia is a Y-linked disorder, and Saad can only pass on his Y chromosome.
B. Hemophilia is an X-inked disorder, and even though Alia and Ayesha received a hemophiliac X chromosome from Saad, Sara gave them a normal X chromosome.
C. Hemophilia is a Y-linked disorder, and therefore cannot be displayed in females.
D. Hemophilia is a Y-linked disorder, and Ahmed and All must have received and X- chromosome from Saad.
E. Hemophilia is an X-inked disorder, and even though Ahmed and Ali received a hemophiliac X chromosome from Saad, gave them a normal X chromosome.

61. If one of Ali's daughters marries a normal man, what is the probability that one of their children will display symptoms of hemophilia?

A. 0%
B. 25%
C. 50%
D. 5%
E. 100%

62. Which of the following individuals are heterozygous for hemophilia?

A. Saad, Ahmed and Ali
B. Ahmed, Ali Alia, and Ayesha
C. Saad and Sara
D. Alia and Ayesha
E. Ahmed and Ali

63. Erythroblastosis foetalis occurs when: (DMC 2011)

A. Mother is Rh positive and baby is Rh negative
B. Mother is Rh negative and baby is Rh positive
C. Both mother and baby are Rh negative
D. Both mother and baby are Rh positive
E. All of the above statements are true

64. In pea plants, the allele for round seeds (R) is dominant to the allele for wrinkled seeds (r) and the allele for yellow seeds (Y) is dominant to the allele for green seeds (y). A doubly heterozygous, round, yellow-seeded plant is crossed with a green, wrinkled-seeded plant. What percentage of the F1 generation are recombinants? (DMC 2011)

A. 0 %
B. 25 %
C. 50 %
D. .75 %
E. 100 %

65. The genotype of normal male in humans is _____ chromosomes. (DMC 2012)

A. 44+XX
B. 44+XY
C. 44+XXY
D. 44+XO
E. 44+XXX

67. A pure-breeding plant with the dominant phenotype of character P and the recessive phenotype of character Q was crossed with another pure-breeding plant with the. Recessive phenotype of character P and the dominant phenotype of Q. The offspring of this cross were crossed with a double homozygous recessive for P and Q and the following results obtained:
22 were phenotypically dominant for P and recessive for Q.
5 were phenotypically dominant for both P and Q.
4 were phenotypically recessive for both P and Q.
24 were phenotypically recessive for P and dominant for Q. Which one of the following types of inheritance is illustrated by these results? (DMC 2013)

A. gene linkage of P and Q
B. independent segregation of P and Q
C. Mendelian dihybrid inheritance
D. multiple alleles
E. polygenic inheritance

68. Flower color is controlled by a single pair of alleles. The allele for red flowers is dominant to the allele for white flowers. (DMC 2014)
A plant homozygous for red flowers is crossed with a plant homozygous for white flowers. All the resulting plants have red flowers (F1 generation). When the F1 generation is crossed with each other, 18 plants are obtained. 12 plants have red. Flowers and 6 have white flowers (F2 generation) What ratio is expected in the F2 generation and what ratio has been obtained?

	expected ratio red to white	obtained ratio red to white
A.	1 : 1	2 : 1
B.	1 : 1	3 : 1
C.	3 : 1	2 : 1
D.	3 : 1	3 : 1

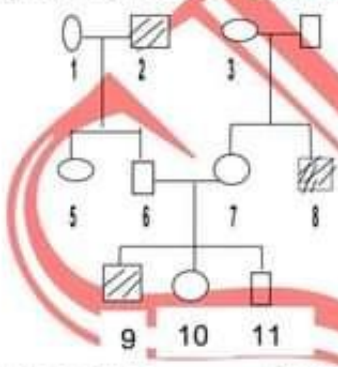
69. In birds the male is the homogametic sex. A male bird showing the recessive trait was mated with a female showing the dominant trait of a characteristic governed by a pair of alleles which are sex linked. What is the probability that the male offspring will show the dominant trait? (DMC 2014)

A. 0
B. 0.25
C. 0.50
D. 0.75
E. 1.00

70. During the formation of an ovum, non-disjunction of the sex chromosomes occurred. The ovum was then fertilized by a normal, Y-bearing sperm cell. Which one of the following shows the sex chromosome complement of the resulting zygote? (DMC 2015)

A. XO
B. XY
C. XXY
D. XXXY
E. XXYY

71. The diagram shows the inheritance of haemophilia in a family. (DMC 2015)



Key to phenotypes

Normal female

Haemophilia femal

Normal male

Haemophilia male

key to chromosome types

X^H = normal X chromosome

X_h = × chromosome carrying allele for haemophilia

Y = normal Y chromosome

What is the genotype of person 7?

A. $X_H X_H$
B. $X_H Y$
C. $X_H X_h$
D. $X_h Y_h$
E. $X_h Y$

72. Red-green colour-blindness is a sex-linked recessive trait. A colour-blind man marries a woman with normal vision, whose father is colour-blind. If they have a daughter, what is the probability that she will be colour-blind? (Lyari 2015)

A. 0
B. 0.25
C. 0.50
D. 0.75

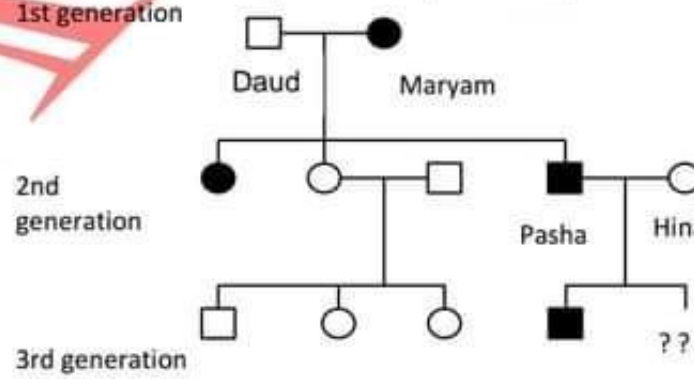
73. Mendel concluded that each organism has two hereditary factors for each trait, now called: (Lyari 2015)

A. chromatids
B. alleles
C. chromosomes
D. none of the above

74. Inheritance of acquired characteristics is based on: (DMC 2016)

A. Genetic role in reproduction
B. Use and disuse of organ
C. Survival of the fittest
D. Mutations

75. The family tree shows the inheritance of the ability to taste a certain substance. The allele for the ability to taste this substance is dominant to the allele for the inability to taste it. (DMC 2016)



Key

Represents a male 'taster'

Represents a male 'non-taster'

Represents a female 'taster'

Represents a female 'non-taster'

What percentage of children of Pasha and Hina would be 'non tasters'?

A. 25 %
B. 50%
C. 75%
D. 100%

76. Two animals are mated. One is homozygous dominant for one character and homozygous recessive for another. The other animal is heterozygous for both characters. How many phenotypes are expected in the offspring of this cross? (DMC 2016)

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

77. Part of the amino acid sequences in normal and sickle cell haemoglobin are shown.

normal haemoglobin sickle cell haemoglobin
thr - pro - glu – glu thr - pro - val - glu
mRNA codons for these amino acids are:
glutamine (glu) GAA GAG proline (pro) CCU CCC
threonine (thr) ACU ACC valine (val) GUA GUG
Which transfer RNA molecule is involved in the formation of this part of the sickle cell haemoglobin? (DMC 2016)

A. GUG
B. CAU
C. UGC
D. GAG

78. In the Hardy-Weinberg principle, $p^2+2pg+q^2=?$ (Lyari 2016)

A. 0
B. 1
C. Infinity
D. Any value between 0 to 1

79. Which statement about dominant and recessive alleles is not correct? (Lyari 2016)

A. A dominant characteristic is seen in the phenotype of a heterozygote.
B. A homozygous genotype may be either dominant or recessive
C. Recessive phenotypes always have two recessive alleles.
D. The phenotype of a homozygote is always dominant.

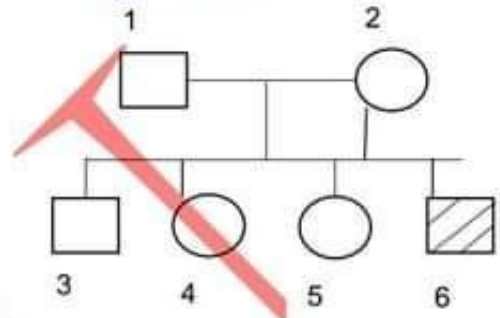
80. An Rh negative woman is married to an Rh positive man whose father was also Rh negative. What are the chances that their child will be affected? (Lyari 2016)

A. 25%
B. 50%
C. 75%
D. 100%

81. The disease, which is caused by defect in a single gene or pair of gene is referred to as: (Lyari 2016)

A. Unifactorial
B. Multifactorial
C. Down syndrome
D. Turner syndrome

82. The diagram shows the inheritance of haemophilia in a family. (KMDC 2016)



Key

Unaffected female

Unaffected male

Affected male

If daughter 4 married a normal male, what is the probability that their first child would suffer from haemophilia?

A. 0
B. 0.125
C. 0.25
D. 0.5

83. An inter-breeding population of finches became separated geographically, forming two groups. Each group then became subject to different selective pressures. One group was then introduced into the habitat of the other.
Which one of the following would determine whether they now formed two distinct species? (KMDC 2016)

A. They had been separated for more than three million years.
B. They failed to produce fertile F, hybrids.
C. They showed marked differences in the shape of their beaks.
D. Their plumage had become markedly different.
E. Several genes now possessed different base sequences.

84. **Part of the amino acid sequences in normal and sickle cell haemoglobin are shown.**

normal haemoglobin **sickle cell haemoglobin**
thr - pro - glu – glu **thr - pro - val - glu**

mRNA codons for these amino acids are:

glutamine (glu) GAA GAG **proline (pro) CCU CCC**
threonine (thr) ACU ACC **valine (val) GUA GUG**

Which transfer RNA molecule is involved in the formation of this part of the sickle cell haemoglobin? (DMC 2016)

A. GUG
B. CAU
C. UGC
D. GAG

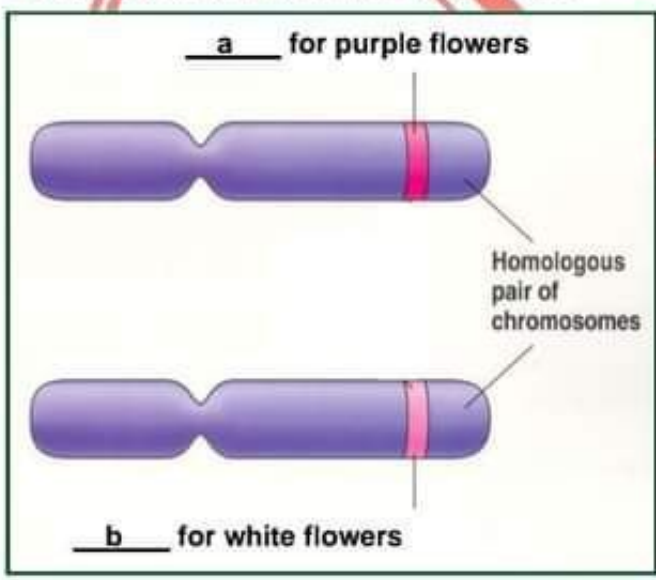
85. **A man who has type AB blood could not father a child with type _____ blood, because he would pass on either the_____ or the B allele to of his offspring.** (NTS 2019)

A. A, O
B. O, A
C. B, O
D. B, A

86. **Which of the following is NOT true for a gene?** (NTS 2019)

A. A gene is a sequence Of nucleotides in DNA
B. A gene is the basic unit of heredity
C. A gene codes for a molecule that has a function
D. A gene expresses to form chromosomes

87. **What are a and b in the following picture?**



(NTS 2019)

A. Allele and allele
B. Allele and gene
C. Gene and gene
D. Mutation and gene

88. **In a laboratory while working on a new Species Of fish, it is found that the fish has two varieties, red and brown. It was determined by another group Of scientists in another laboratory that brown is a dominant color in this species. If we have brown fish with us in the laboratory, how can we determine whether they are homozygous or heterozygous for the trait?** (NTS 2019)

A. Breed this fish with a red fish and check F1 generation
B. Breed this fish with a red fish and check F2 generation
C. Breed this fish with a brown fish and check F1 generation
D. Breed this fish with a brown fish and check F2 generation

89. **When a color blind male marries a normal female, what will the chances of colorblindness in his grandsons, if his daughter marries to a normal male?** (NTS 2019)

A. 10%
B. 25%
C. 50%
D. 100%

90. **Crossing over is an exchange Of genes between _____, resulting in a mixture of parental characteristics In offspring.** (NTS 2019)

A. Sister Chromatids
B. Non homologous Chromosomes
C. Sex chromosomes
D. Homologous chromosomes

91. **A cross between a black cat and a tan cat produces a tabby pattern (black and tan fur together). What percent of kittens would have tan fur if a tabby cat Is crossed with a black cat?** (NTS 2019)

A. 100%
B. 50%
C. 25%
D. 0%

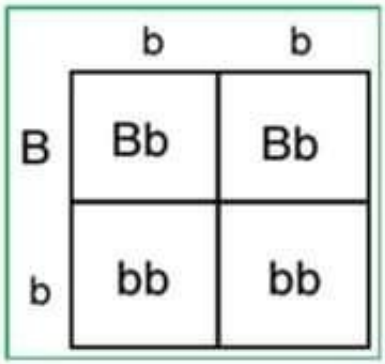
92. **Haemophilia is a sex linked _____ trait.** (NTS 2019)

A. Dominant
B. Codominant
C. Pleitropic
D. Recessive

93. The d and "D" alleles are used for lighter and darker skin color in humans respectively. By keeping In View the inheritance pattern of skin color in human beings, choose which combination is showing medium skin color from the following picture: (NTS 2019)

			a		b		c		d		e
a	Gene 1		d^1d^1		d^1D^1		D^1D^1		D^1d^1		D^1D^1
b	Gene 2		d^2d^2		d^2d^2		D^2d^1		D^2d^2		D^2D^2
C	Gene 3		d^3d^3		d^3d^3		d^3d^3		D^3D^3		D^3D^3

94. The following results of a cross between two individuals shown in the picture is: (NTS 2019)



A. One that is homozygous dominant and other has a dominant phenotype, but has a mother with recessive phenotype.
B. One that is homozygous recessive and other has a dominant phenotype, but has a mother with recessive phenotype.
C. One that is homozygous recessive and other has a dominant phenotype, but has a brother with recessive phenotype.
D. One that is homozygous recessive and other has a recessive phenotype, but has a father with dominant phenotype.

ANSWER KEY

1	A	11	C	21	D	31	A	41		51	C	61	A	71	C	81	A	91	D
2	D	12	A	22	A	32	B	42		52	C	62	D	72	C	82	B	92	D
3	C	13	C	23	C	33		43		53	D	63	B	73	B	83	B	93	B
4	C	14	E	24		34	C	44		54		64	C	74	B	84	B	94	B
5	C	15	D	25	D	35	A	45		55		65	B	75	B	85	B	95	
6	A	16	A	26	B	36		46		56	A	66		76	A	86	D	96	
7	E	17	B	27	A	37	C	47		57	B	67	A	77	B	87	A	97	
8	C	18	B	28	D	38		48		58	E	68	C	78	B	88	A	98	
9	B	19	Canceled	29	C	39		49	D	59	D	69	E	79	D	89	C	99	
10	C	20	E	30	D	40		50	C	60	B	70	C	80	B	90	D	100	