

PYQSide

NEET PRINCIPLES OF INHERITANCE AND VARIATION — PEDIGREE ANALYSIS — PYQS

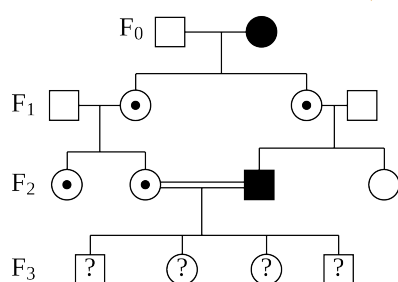
Max. Marks: 36

Questions: 9

Section A (MCQ)

- Q.1** With the help of given pedigree, find out the probability for the birth of a child having no disease and being a carrier (has the disease mutation in one allele of the gene) in F_3 generation.

[NEET (UG) 2025]



- Unaffected male
 ■ Affected male
 ○ Carrier female
 ○ Unaffected female
 ● Affected female

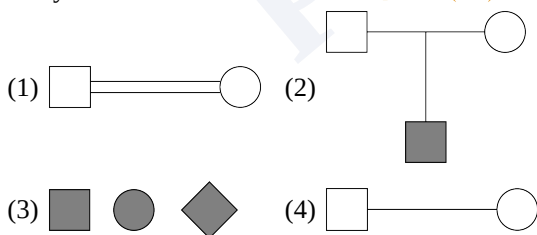
- (1) 1/8 (2) Zero (3) 1/4 (4) 1/2

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- Q.2** Which one of the following symbols represents mating between relatives in human pedigree analysis?

[NEET (UG) 2023]



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- Q.3** Which of the following occurs due to the presence of autosome linked dominant trait?

[NEET (UG) 2022]

- (1) Sickle cell anaemia (2) Myotonic dystrophy
 (3) Haemophilia (4) Thalassemia

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- Q.4** Select the incorrect match regarding the symbols used in the Pedigree analysis:

[NEET (UG) 2022 (Phase 2)]

- (1) – Parent with male child affected with disease
 (2) – Sex unspecified
 (3) – Affected individual
 (4) – Consanguineous mating

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- Q.5** Which one is the incorrect statement with regards to the importance of pedigree analysis?

[NEET 2013 (Karnataka)]

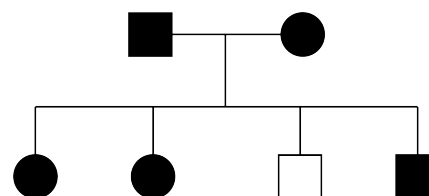
- (1) It confirms that DNA is the carrier of genetic information
 (2) It helps to trace the inheritance of a specific trait
 (3) It confirms that the trait is linked to one of the autosome
 (4) It helps to understand whether the trait in question is dominant or recessive

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- Q.6** Study the pedigree chart of a certain family given below and select the correct conclusion which can be drawn for the character –

[AIPMT 2010 (Mains)]

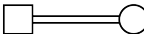


- (1) The trait under study could not be colourblindness
 (2) The female parent is heterozygous
 (3) The parents could not have had a normal daughter for this character
 (4) The male parent is homozygous dominant

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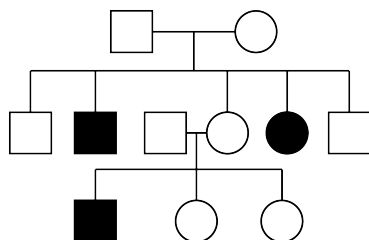
Q.7 Which one of the following symbols and its representation, used in human pedigree analysis is correct – [AIPMT 2010 (Prelims)]

- (1)  = mating between relatives
 (2)  = unaffected female
 (3)  = unaffected male
 (4)  = male affected

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Q.8 Study the pedigree chart given below:



What does it show? [AIPMT 2009]

- (1) Inheritance of a recessive sex-linked disease like haemophilia
 (2) Inheritance of a sex-linked inborn error of metabolism like phenylketonuria
 (3) The pedigree chart is wrong as this is not possible
 (4) Inheritance of a condition like phenylketonuria as an autosomal recessive trait

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Q.9 A diseased man marries a normal woman. They get three daughters and five sons. All the daughters were diseased and sons were normal. The gene of this disease is : - [AIPMT 2002]

- (1) Sex linked dominant (2) Autosomal dominant
 (3) Sex linked recessive (4) Sex limited character

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ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9		
Ans.	3	1	2	4	1	2	1	4	1		