

NEET PRINCIPLES OF INHERITANCE AND VARIATION — PEDIGREE ANALYSIS — PYQS

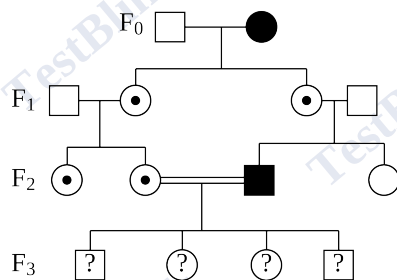
Max. Marks: 36

Questions: 9

Section A (MCQ) — 9 questions

- 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]



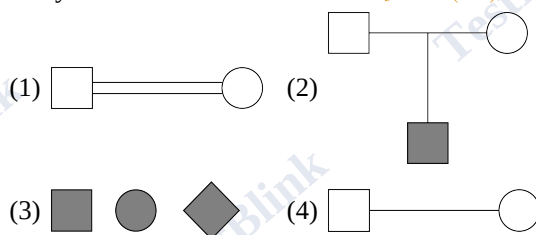
- Unaffected male
 ■ Affected male
 ● Carrier female
 ○ Unaffected female
 ● Affected female

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

 Scan or tap for the
 full solution
 

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

[NEET (UG) 2023]


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 full solution
 

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

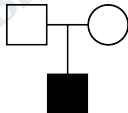
[NEET (UG) 2022]

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

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 full solution
 

- 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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 full solution
 

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

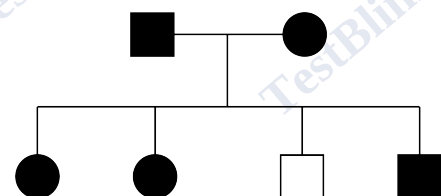
[NEET 2013 (Karnataka)]

- (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

 Scan or tap for the
 full solution
 

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

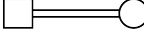
[AIPMT 2010 (Mains)]



- (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

 Scan or tap for the
 full solution
 

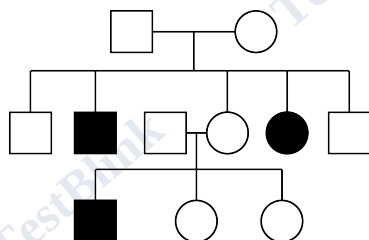
Q.7 Which one of the following symbols and its representation, used in human pedigree analysis is correct – [AIPMT 2010 (Prelims)]

- (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

Scan or tap for the full solution



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

Scan or tap for the full solution



ANSWER KEY

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