

KCET 2026 April 24 Biology

Question Paper (Memory-Based) PDF

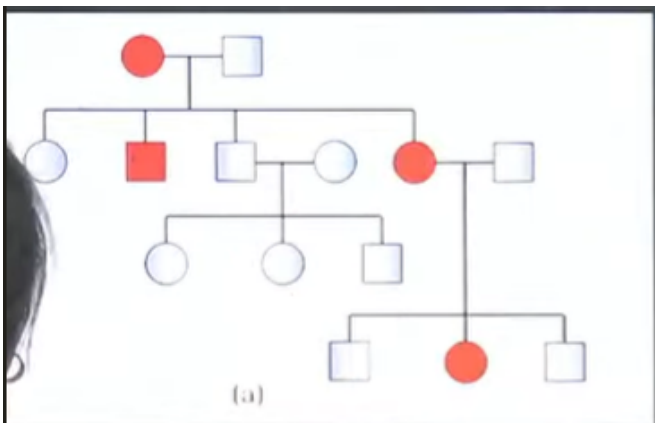
Conducted by KEA



General Instructions

- (i) **Duration:** The total duration of the examination is 80 minutes.
- (ii) **Total Marks:** The complete paper carries a maximum of 60 marks.
- (iii) **Compulsory Questions:** All 60 questions are compulsory.
- (iv) Each question has four options. Only **one** option is correct.
- (v) **Correct Answer:** +1 marks.
- (vi) **Incorrect Answer:** There is no Negative marking for incorrect answers.

1. In the following pedigree chart, the mutant trait is shaded black. The gene responsible for the trait is:



- (a) dominant and sex-linked
- (b) dominant and autosomal
- (c) recessive and sex-linked
- (d) recessive and autosomal

2. If a colour-blind female marries a man whose mother was also colour blind, what are the chances of her progeny having colour blindness?

- (a) 100%
- (b) 25%
- (c) 50%
- (d) 75%

3. The gene for haemophilia is located on 'x' chromosome. Hence it is normally impossible for a:

- (a) haemophilic father to pass the gene to his daughter
- (b) carrier mother to pass the gene to her daughter
- (c) carrier mother to pass the gene to her son
- (d) haemophilic father to pass the gene to his son

4. Match the column I with column II.

Column-I: (A) Autosomal trisomy, (B) Allosomal trisomy, (C) Allosomal Monosomy, (D) Cystic fibrosis

Column-II: (i) Turner's Syndrome, (ii) Mendelian disorder, (iii) Klinefelter's Syndrome, (iv) Down's Syndrome

- (a) (A)-(i); (B)-(ii); (C)-(iii); (D)-(iv)
- (b) (A)-(i); (B)-(ii); (C)-(iv); (D)-(iii)
- (c) (A)-(iv); (B)-(iii); (C)-(ii); (D)-(i)
- (d) (A)-(iv); (B)-(iii); (C)-(i); (D)-(ii)

5. Find the correct statement.

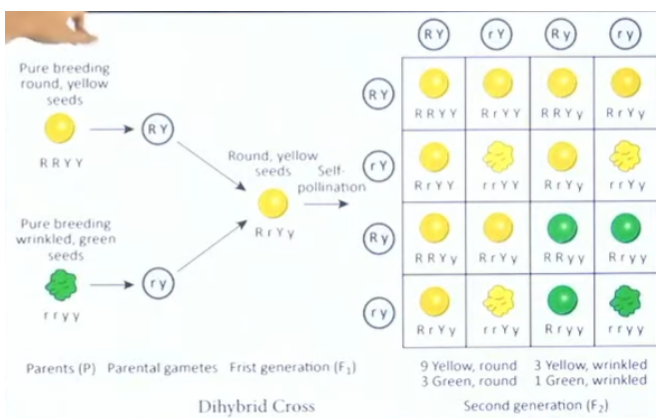
- (1) Generally, a gene regulates a trait but sometimes one gene has effect on multiple traits.
- (2) The trait AB-blood group of man is regulated by one dominant allele and another recessive allele. Hence it is co-dominant.

- (a) Statement (2) is correct.
- (b) Both statements (1) and (2) are correct.
- (c) Both the statements are wrong.
- (d) Statement (1) is correct.

6. The genotype of a husband and wife are $I^A I^B$ and $I^A I^O$. Among the blood types of their children, how many different genotypes and phenotypes are possible?

- (a) 3 genotypes; 3 phenotypes
- (b) 4 genotypes; 3 phenotypes
- (c) 4 phenotypes; 3 genotypes
- (d) 4 phenotypes; 4 genotypes

7. In dihybrid cross, when F_1 plants ($Rr Yy$) are self hybridized, the ratio of segregation of yellow and green in F_2 is



- (a) 1:2:1
- (b) 3:1
- (c) 9:3:3:1
- (d) 1:1:1:1

8. In a dithecous anther, each pollen sac contains 1000 MMC. What is the total number of pollen grains produced by the anther?

- (a) 4,000
 - (b) 8,000
 - (c) 16,000
 - (d) 32,000
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9. Which pair of the following cells in the embryo sac are destined to change their ploidy after fertilization?

- (a) Synergids and eggs cell
 - (b) Central cell and antipodals
 - (c) Egg cell and central cell
 - (d) Antipodals and synergids
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10. In apple, the chromosome number of gametes is 17. What is the chromosome number in its Primary Endosperm Nucleus (PEN)?

- (a) 51
 - (b) 34
 - (c) 68
 - (d) 17
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11. Which of the following characters is not required for autogamy?

- (a) Flowers require synchrony in pollen release and stigma maturation.
 - (b) Anthers and stigma should lie close to each other.
 - (c) Flowers should be bisexual.
 - (d) Required pollination agents.
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12. Identify the correct statement.

- (a) Only one megaspore present towards chalazal end remains functional.
- (b) 3 megaspores present towards chalazal end degenerate gradually.

- (c) Each megaspore mother cell directly develops into a megaspore.
 - (d) Each female gametophyte is 7-celled and 7-nucleated structure.
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13. Select the plant species, where emasculation is not required for artificial hybridisation experiment.

- (a) Castor
 - (b) Maize
 - (c) Papaya
 - (d) Wheat
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14. Select the odd one out.

- (a) Male accessory gland - Cowper's gland
 - (b) Clitoris - External genitalia
 - (c) Myometrium - Inner glandular layer
 - (d) Ectoderm - Outer layer
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15. Which of the following hormones is not secreted by human placenta?

- (a) Progestogen
 - (b) hCG
 - (c) Estrogen
 - (d) LH
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