

Multiple Choice Questions - Grades 10

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Ø=ÜÜ Multiple Choice Questions Grade Levels: 10 Number of Questions

best answer for each question. Mark your answers clearly. Question 1 The plant shown in Figure 5.21 is *Pisum sativum*. Which common Indian vegetable does this represent? A. Brinjal (Baingan) B. Pea (Matar) C. Okra (Bhindi) D. Potato (Aloo) Question 2 The text describes the flower of the Fabaceae family as 'zygomorphic'. What does this term mean? A. The flower can be divided into two identical halves in any plane. B. The flower parts are arranged in multiples of three. C. The flower can be divided into two similar halves only in one particular vertical plane. D. The flower lacks any symmetry. Question 3 What type of inflorescence is mentioned as characteristic of the Fabaceae family in the textbook? A. Cymose B. Racemose C. Solitary D. Spike Question 4 The corolla of a pea flower is described as 'papilionaceous'. This special arrangement consists of: A. Five identical petals fused together. B. Five petals arranged as a posterior standard, two lateral wings, and two anterior fused to form a keel. C. Three large outer petals and two small inner petals. D. Two sets of petals, one for attracting insects and one for protection. Question 5 The term 'diadelphous' is used to describe the androecium of the pea plant. What does it signify? A. Ten stamens are present, all fused into a single bundle. B. Ten stamens are present, with nine fused into one bundle and one remaining free. C. Five stamens are present and are all free. D. Ten stamens are present in two whorls of five each. Question 6 According to the floral formula $K(5) C1+2+(2) A(9)+1 G1$, what does $G1$ (with an underscore) indicate about the gynoecium? A. A single carpel with an inferior ovary. B. A single carpel with a superior ovary. C. Many fused carpels with a half-inferior ovary. D. A gynoecium that is absent in the flower. Question 7 The text states that the fruit of the Fabaceae family is a 'legume'. Which of the following is the best example of a legume fruit? A. Mango B. Tomato C. Pea pod D. Wheat grain Question 8 Many important Indian pulses like 'arhar' and 'moong' belong to the Fabaceae family. What is the primary nutritional component they provide? A. Fats and oils B. Carbohydrates C. Proteins D. Vitamins Question 9 The plant '*Indigofera*', mentioned under economic importance, was historically significant in India for producing: A. A blue dye. B. A strong fibre. C. A medicinal compound. D. Fodder for cattle. Question 10 '*Muliathi*', mentioned as a medicinal plant in the text, is the common name for: A. Turmeric B. Neem C. Liquorice D. Tulsi Question 11 The seeds of the Fabaceae family are described as 'non-endospermic'. This means that: A. The seed has no embryo. B. The food reserve (endosperm) is consumed by the embryo during development. C. The seed cannot germinate. D. The food is stored in a separate layer outside the seed coat. Question 12 Looking at the floral formula, what does $K(5)$ signify about the calyx? A. There are 5 free sepals. B. There are 5 petals in the calyx. C. There are 5 fused sepals. D. There are 5 whorls of sepals. Question 13 Which specific arrangement of stamens is represented by ' $A(9)+1$ ' in the floral formula? A. Monadelphous B. Syngenesious C. Polyandrous D. Diadelphous Question 14 The 'potato family' is the common name for which plant family mentioned in the text? A. Fabaceae B. Solanaceae C. Liliaceae D. Brassicaceae Question 15 Based on the handwritten notes, a key difference between the Fabaceae (pea) and Solanaceae (potato) families is that Solanaceae flowers are typically: A. Tetramerous (parts in fours) B. Trimerous (parts in threes) C. Pentamerous (parts in fives) and actinomorphic D. Zygomorphic and incomplete Question 16 Which of these economically important products from the Fabaceae family is a source of both edible oil and protein-rich food? A. Lupin B. Sunhemp C. Soyabean D. *Indigofera* Question 17 The Gynoecium of a pea flower is described as 'monocarpellary' and 'unilocular'. This implies it has: A. Multiple fused carpels with many chambers. B. A single carpel with a single chamber. C. Multiple free carpels, each with one chamber. D. A single carpel with multiple chambers. Question 18 The specific petal arrangement in a pea flower, called vexillary aestivation, is an adaptation that aids in: A. Wind dispersal of seeds. B. Protecting the reproductive parts and guiding pollinators. C. Storing water during dry conditions. D. Photosynthesis by the petals. Question 19 How do plants from the Fabaceae family, like groundnut ('*moongphali*'), differ from monocots like rice, based on their seed structure? A. Fabaceae have two cotyledons; rice has one. B. Fabaceae seeds store food in the endosperm; rice does not. C. Fabaceae seeds lack a seed coat; rice has a thick one. D. Fabaceae seeds are monocots; rice is a dicot. Question 20 In the floral diagram (f), what does the outermost whorl with five connected green structures represent? A. The corolla (petals) B. The androecium (stamens) C. The gynoecium (carpel) D. The calyx (sepals) Question 21 The symbol '%' at the very beginning of the floral formula for Fabaceae specifically denotes that the flower has: A. Radial symmetry (Actinomorphic) B. Bilateral symmetry (Zygomorphic) C. A perishable nature D. Percentage of successful pollination Question 22 While the text describes the androecium as