

CUET 2026 May 22 Shift 1 Biology

Question Paper (Memory-Based)

Conducted by National Testing Agency (NTA)

General Instructions

- (i) The examination will be conducted in Computer-Based Test (CBT) mode.
- (ii) Each question carries +5 marks for correct answer and -1 mark for wrong answer.
- (iii) The total number of questions are 50.
- (iv) Duration of the exam is 1 hour (60 minutes).

1. Ribozyme is:

- (A) 23S rRNA
- (B) 28S rRNA
- (C) 18S rRNA
- (D) 5.8S rRNA

2. The species-area relationship was explained by Alexander von Humboldt. Which of the following equations correctly represents this relationship?

- (A) $S = CA^{-Z}$
- (B) $S = CZ^A$
- (C) $S = CA^Z$
- (D) $S = \frac{C}{A^Z}$

3. In the graph of species-area relationship, what does the slope of the line represent when plotted on a log-log scale?

- (A) Carrying capacity
- (B) Regression coefficient Z
- (C) Population density

(D) Natality rate

4. During the process of making bacteria competent for recombinant DNA technology, which treatment is commonly used?

- (A) Treatment with calcium chloride
 - (B) Treatment with sodium hydroxide
 - (C) Treatment with ethanol
 - (D) Treatment with glucose solution
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5. Read the following passage carefully and answer the question that follows:

During the menstrual cycle, the endometrium undergoes cyclic changes under the influence of hormones. Ovulation generally occurs around the 14th day of a 28-day menstrual cycle. After ovulation, the ruptured Graafian follicle transforms into a temporary endocrine gland known as corpus luteum. If fertilisation does not occur, the corpus luteum degenerates leading to menstruation.

Which hormone is mainly responsible for maintaining the endometrium after ovulation?

- (A) Estrogen
 - (B) Progesterone
 - (C) Oxytocin
 - (D) Relaxin
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6. What is the cessation of menstrual cycle in females around the age of 45–50 years called?

- (A) Menarche
 - (B) Menopause
 - (C) Ovulation
 - (D) Gestation
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7. The corpus luteum mainly secretes which of the following hormones?

- (A) Testosterone
 - (B) Progesterone
 - (C) FSH
 - (D) LH
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8. In the menstrual cycle, the LH surge is primarily responsible for:

- (A) Formation of endometrium
 - (B) Menstruation
 - (C) Ovulation
 - (D) Degeneration of corpus luteum
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9. Which graph correctly represents the species-area relationship on a logarithmic scale?

- (A) Straight line with positive slope
 - (B) Straight line with negative slope
 - (C) Circular curve
 - (D) Horizontal line
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10. During recombinant DNA technology, why are bacterial cells kept on ice after calcium chloride treatment?

- (A) To destroy plasmid DNA
 - (B) To reduce membrane permeability permanently
 - (C) To facilitate binding of DNA to cell membrane
 - (D) To stop bacterial respiration completely
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