

# 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

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**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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