

UPCATET UG 2026 June 17

Question Paper (Memory-Based)

Conducted by Banda University of Agriculture and Technology (BUAT)



General Instructions

- (i) Each question carries +4 marks for a correct answer. There is a negative marking of 1 for incorrect answers.
- (ii) The total number of questions is 200.
- (iii) The duration of the exam is 3 hours (180 minutes).

1. Which of the following statements is false about viruses?

- (A) Viruses are obligate parasites.
- (B) Viruses can multiply only when they are inside the living cells.
- (C) Viruses cannot pass bacterial proof filters.
- (D) Viruses are made up of protein and DNA or RNA.

2. "Gemmae" are multicellular green structures for vegetative propagation. These are found in gemma cups in

- (A) Riccia thallus
- (B) Marchantia thallus
- (C) Funaria protonema
- (D) Fern prothallus

3. Natural system of classification was proposed by

- (A) Bentham and Hooker
- (B) Hutchinson

- (C) Whittaker
(D) Engler and Prantl
-

4. According to the mole concept in chemistry, what is the number of carbon atoms in 12 g of Carbon-12?

- (A) 6.022×10^{23}
(B) 6.022×10^{-23}
(C) 1.602×10^{19}
(D) 1.602×10^{-19}
-

5. For a spontaneous process, the value of Gibbs energy change (ΔG) is always:

- (A) Positive
(B) Negative
(C) Zero
(D) Infinity
-

6. Which of the following effects is a permanent effect?

- (A) Electromeric effect
(B) Inductive effect
(C) Both
(D) None
-

7. How many states and union territories are there in India?

- (A) 28/8
(B) 28/9
(C) 29/7
(D) 75
-

8. Through how many states of India does the Tropic of Cancer pass?

- (A) 7
 - (B) 8
 - (C) 5
 - (D) 4
-

9. Where is Kuchipudi a classical dance from?

- (A) Assam
 - (B) Tamil Nadu
 - (C) Kerala
 - (D) Andhra Pradesh
-

10. When was NABARD established?

- (A) 1929
 - (B) 1982
 - (C) 1905
 - (D) 1965
-

11. What is the value of i^{4k+2} where k is an integer?

- (A) 1
 - (B) -1
 - (C) i
 - (D) $-i$
-

12. What is the value of ${}^nC_{n-1}$?

- (A) 1
 - (B) $n!$
 - (C) n
 - (D) 0
-

13. What is the total number of terms in the expansion of $(x + y)^{15}$?

- (A) 15
 - (B) 16
-

- (C) 14
 - (D) 30
-

14. When a forward bias voltage is applied to a p-n junction diode, it:

- (A) Increases the potential barrier
 - (B) Decreases the potential barrier
 - (C) Increases the width of the depletion layer
 - (D) Converts it into an insulator
-

15. Photons of energy 4 eV are incident on a metal surface whose work function is 2 eV. If the intensity of this incident light is doubled, the maximum kinetic energy of the emitted photoelectrons will:

- (A) Double to 4 eV
 - (B) Quadruple to 8 eV
 - (C) Remain 2 eV
 - (D) Become zero
-