

Test *and* Evaluation

# Previous Year's Papers

**CSIR-NET Life Sciences**  
**2013-2023**

## Special features

Unit-wise segregation of questions

Solution of analytical questions

Pranav Kumar | Usha Mina

Test *and* Evaluation

# Previous Year's Papers

CSIR-NET Life Sciences

## Pranav Kumar

Former faculty,  
Department of Biotechnology,  
Jamia Millia Islamia (JMI),  
New Delhi, India

## Usha Mina

Professor,  
School of Environmental Sciences,  
Jawaharlal Nehru University (JNU),  
New Delhi, India



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CSIR-NET Life Sciences

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## Syllabus : CSIR–JRF–NET

- Unit 1**     Molecules and their interactions relevant to Biology
- Unit 2**     Cellular Organization
- Unit 3**     Fundamental Processes
- Unit 4**     Cell Communication and Cell signaling
- Unit 5**     Developmental Biology
- Unit 6**     System Physiology : Plant
- Unit 7**     System Physiology : Animal
- Unit 8**     Inheritance Biology
- Unit 9**     Diversity of Life forms
- Unit 10**   Ecological Principles
- Unit 11**   Evolution and Behaviour
- Unit 12**   Applied Biology
- Unit 13**   Methods in Biology

# Life Sciences : December 2023 (Shift - 1)

## PART – A

001. The number  $681^{32} - 319^{32}$  is divisible by  
 a. both 362 and 1000      b. 362 but not 1000      c. 1000 but not 362      d. neither 362 nor 1000
002. Which one of the following graphs represents the displacement versus time relation for the motion of a ball thrown upward and returning toward the ground, remaining in air for 10 seconds? (Ignore air resistance.)
- A.**

**B.**

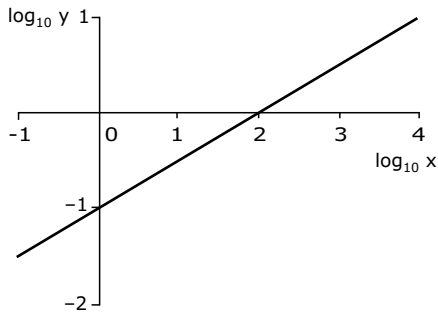
**C.**

**D.**
- a. A      b. B      c. C.      d. D
003. Vehicle number plates have two letters out of the 26 letters of the English alphabet followed by four decimal digits. How many different number plates are possible if repetition of letters and digits is allowed?
- a.  $26 \times 25 \times 10 \times 9 \times 8 \times 7$       b.  $26 \times 26 \times 10 \times 10 \times 10 \times 10$   
 c.  $(26 \times 25 \times 24 \times 23 \times 10 \times 9)/(4 \times 3 \times 2 \times 2)$       d.  $26 \times 25 \times 24 \times 23 \times 10 \times 9$
004. In a grid puzzle, each row and column in the  $9 \times 9$  grid, as well as each  $3 \times 3$  subgrid shown with heavy borders, must contain all the digits 1 – 9.
- |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 1 |   |   |   |   | 8 |   |   | 9 |
|   |   | 2 |   |   |   |   |   | 8 |
|   | 8 |   | 5 | 4 | 9 |   |   |   |
|   | 4 |   | 2 |   |   | 9 |   |   |
| 3 |   | 9 |   |   |   | 2 |   | 1 |
|   |   | 1 |   | ? | 5 |   | 4 |   |
|   |   |   | 9 | 1 | 2 |   | 3 |   |
| 7 |   |   |   |   |   | 1 |   |   |
| 2 |   |   | 7 |   |   |   |   | 6 |
- In the given partially filled grid, the digit in the square marked “?” is
- a. 3      b. 9      c. 8      d. 7
005. In an examination 3 medals were awarded for each of 5 subjects. If three candidates won exactly four medals each, and no candidate won Just one medal, the total number of medal winners
- a. was exactly 4      b. was exactly 5  
 c. could be either 5 or 6      d. was exactly 6
006. What is the difference, 11 hours after synchronisation, in the time shown by a standard watch and a watch whose hour and minute hands coincide every 64 minutes?
- a. 11 min      b. 16 min      c. 22 min      d. 44 min

# Life Sciences : December 2023 (Shift - 2)

## PART - A

001. Which of the following equations represents the graph shown?



- a.  $\log y = (\log x) - 1$   
 b.  $\log y = (\log x)/2 - 1$   
 c.  $\log y = (\log x) - \log(1)$   
 d.  $\log y = (\log x)/2 + 1$

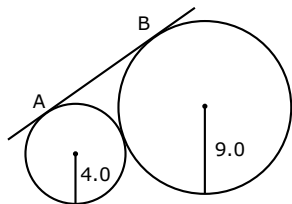
002. Starting at the same time policewomen A and B chase thief T. They all run in the same direction at constant speeds. A runs twice as fast and B thrice as fast as T. If A and B catch up with T at the same time, B must have started

- a. half as far behind T as A did  
 b.  $1\frac{1}{2}$  times as far behind T as A did  
 c. twice as far behind T as A did  
 d. 3 times as far behind T as A did

003. Among A, B, C and D, one is a doctor, one is a teacher, one is an engineer, and the other is a lawyer. The teacher is older to B but younger than D. B is older to the doctor and younger than C. Which among the following is a conclusive inference?

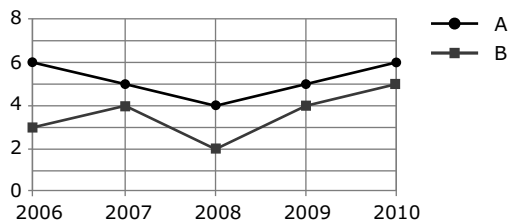
- a. A is the engineer  
 b. B is the lawyer  
 c. C is the teacher  
 d. D is not the doctor

004. Two circles of radii 9.0 units and 4.0 units touch each other externally as in the figure. Then the length (in units) of their common tangent AB is



- a.  $6\sqrt{3}$   
 b. 13  
 c. 12  
 d.  $12\sqrt{2}$

005. Incomes (in lakhs) of two persons A and B, over the years 2006-2010 are shown in the graph.



Which of the following statements is *true*?

- a. Over the years, trends of income of A and B are the same.  
 b. The largest difference in incomes of A and B is in the year 2008.