

#### NATIONAL OFFICERS ACADEMY Mock Exams CSS-2025 January 2025 (Final Mock) GENERAL KNOWLEDGE-I GENERAL SCIENCE AND ABILITY

| TIME ALLOWED: THREE HOURS       | PART-I (MCQS) | MAXIMUM MARKS = 20 |
|---------------------------------|---------------|--------------------|
| PART-I(MCQS): MAXIMUM 30 INUTES | PART-II       | MAXIMUM MARKS = 80 |
| NOTE.                           |               |                    |

NOTE:

- i. Part-II is to be attempted on the separate Answer Book.
- ii. Attempt ONLY FOUR questions from PART-II by selecting TWO questions from EACH SECTION. ALL questions carry EQUAL marks.

# <u>PART-II</u> (SECTION-A)

#### Q. No. 2

- a. Differentiate b/w Igneous rocks & Metamorphic rocks.
- b. Explain the phenomenon of smog & give its types.
- c. Give the importance of Risk assessment in DRM.
- d. Explain short & far sightedness.

### Q. No. 3

- a. What are the proteins & carbohydrates? Give their digestion.
- b. Explain the following: Atmospheric pressure/temperature & humidity.
- c. Explain the ephemeron of Earth quake with diagrams.
- d. Explain the working of RADAR.

### Q. No. 4

- a. Write a note on solar system.
- b. Give the importance of Pituitary gland.
- c. Differentiate RAM & ROM; also define the terms Nibble, USB and mother board.
- d. COP-29 targets to limit temperature rise upto 1.5°c. Comment.

### Q. No. 5

- a. What is sea surface temperature rise? How does it affect the formation of tropical cyclones?
- b. How does optical fiber work?
- c. Discuss different ways in which micro-organisms can help in meeting the current fuel shortage.
- d. Briefly describe; Food additives & Food Preservatives.

### (SECTION-B)

### Q. No. 6

- a. The value of a washing machine depreciates at the rate of 10-percent every year. If its present value is Rs. 8748 then what was the price of washing machine three years ago.
- b. A Father is four times the age of his daughter. If after 5-years, he would be three times of daughter's age, then further after 5-years, how many times he would be of his daughter age?
- c. What will be volume of a football with diameter 12cm?
- d. Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds. What is the ratio of their speeds?

### Q. No. 7

a. Average of 7-consecutive numbers is 20. Find the largest of these numbers.

b. A told B that C is his father's nephew. D is A's cousin but not the brother of C. What relationship is there between D and C?

- c. Find the missing number in the sequence:
- i. 4, 18, \_\_\_\_, 100, 180, 294, 448. ii. 1, 2, 10, 37, 101, \_\_\_. iii. 11, 17, 39, 85, \_\_\_\_
- iv. 13, 24, 46, 90, 178, \_\_\_\_\_. v. 4, \_\_\_\_144, 400, 900, 1764
- d. A sum of money is to be distributed among A, B, C and D such that A: B = 1 : 2, B : C = 3 : 2, C : D
- = 3 :4. If difference in the shares of A and D is 2240, then what is the share of B (in Rs)?

### Q. No. 8

- a. Ali is standing 10 meters away from a tree. The distance of his eyes from his feet is 1.5 meter. Given that the distance from his eyes to the top of the tree is 15 meters, find the height of the tree.
- b. Find out the correct word from the jumbled spellings given below: SONCCUOISIENT, EIVENPRRAOST, UORSIULDC, UNSPRESE, NMILAOPC.
- c. Draw and write the total number of lines of symmetry in a regular hexagon and octagon. How many lines of symmetry are there in a circle?
- d. If the base of the pyramid is rectangular having length is 7 cm and the width is 5 cm and the height of the pyramid is 10 cm, then find its volume.

# \*\*\*\*\* We wish you Good Luck for CSS-2025\*\*\*\*\*