

**A. State the meaning of the following terms.**

1. Positive tropism: response of plants \_\_\_\_\_ the stimulus.
2. Negative tropism: response of plants \_\_\_\_\_ from the stimulus.

**B. Match the following tropisms to the corresponding description**

|                    |                                                                                                                                                                         |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Phototropism    | Response of plants towards light<br>                                                 |
| 2. Geotropism      | Response of plants towards water<br><br><small>shutterstock.com • 1541322737</small> |
| 3. Hydrotropism    | Response of plants towards gravitational force<br>                                 |
| 4. Thigmotropism   | Response that is not influenced by the direction of stimulus<br>                   |
| 5. Nastic response | Response of plants touch<br>                                                       |

C. Complete the following explanation with the correct words.

|         |         |              |           |
|---------|---------|--------------|-----------|
| touch   | gravity | light        | away from |
| support | roots   | water source | shoots    |

|    | Plant responses       | Explanation                                                        |
|----|-----------------------|--------------------------------------------------------------------|
| a) | Positive geotropism   | The _____ grow in response to _____                                |
| b) | Negative geotropism   | The _____ grow _____ gravity                                       |
| c) | Phototropism          | The shoots grow towards the _____                                  |
| d) | Positive hydrotropism | The roots grow towards the _____                                   |
| e) | Thigmotropism         | Growth of plants in response to touch with solid objects for _____ |
| f) | Nastic movement       | Response of certain parts of plants to _____                       |

D. Name the following nastic responses to the corresponding description.

a) Response towards heat :

b) Response towards light:

c) Response towards touch:

|             |              |              |
|-------------|--------------|--------------|
| Photonastic | Thermonastic | Seismonastic |
|-------------|--------------|--------------|