

# National Board of Examinations

**Question Paper Name :** DNB Physiology Paper3  
**Subject Name :** DNB Physiology Paper3  
**Duration :** 180  
**Total Marks :** 100  
**Display Marks:** No

**Maximum Instruction Time :** 0

**Question Number : 1 Question Id : 32718733724 Consider As Subjective : Yes**

**Please write your answers in the answer booklet within the allotted pages as follows:-**

Question Number	Answer to be attempted within	Question Number	Answer to be attempted within
Q. 1	Page 1-5	Q. 6	Page 26-30
Q. 2	Page 6-10	Q. 7	Page 31-35
Q. 3	Page 11-15	Q. 8	Page 36-40
Q. 4	Page 16-20	Q. 9	Page 41-45
Q. 5	Page 21-25	Q. 10	Page 46-50

1. Describe the mechanism of transmission and perception of pain. Add a note on central analgesia system. [6+4]

**Question Number : 2 Question Id : 32718733725 Consider As Subjective : Yes**

Discuss the interplay of cerebellum and basal ganglia in regulating movement. [5+5]

**Question Number : 3 Question Id : 32718733726 Consider As Subjective : Yes**

Describe the sequence of physiological events associated with occurrence of ovulation. Add a note on feedback regulation of hypothalamic-pituitary-ovarian axis in females. [6+4]

**Question Number : 4 Question Id : 32718733727 Consider As Subjective : Yes**

- a) Cryptorchidism. [3]
- b) Bone remodeling. [3]
- c) Heat stroke. [4]

**Question Number : 5 Question Id : 32718733728 Consider As Subjective : Yes**

Describe the regulation of secretion of glucocorticoids. Add a note on their physiological actions. [4+6]

**Question Number : 6 Question Id : 32718733729 Consider As Subjective : Yes**

- a) Decerebrate rigidity. [4]
- b) True and Pseudo hermaphrodite. [3]
- c) Respiratory adjustments in infant to extrauterine life upon birth. [3]

**Question Number : 7 Question Id : 32718733730 Consider As Subjective : Yes**

Describe the physiological mechanism and clinical significance of phasic and tonic stretch reflexes. Add a note on alpha-gamma linkage. [4+3+3]

**Question Number : 8 Question Id : 32718733731 Consider As Subjective : Yes**

Describe briefly the physio-clinical significance of:

- a) Synaptic plasticity. [3]
- b) Mirror neurons. [3]
- c) Evoked Potentials. [4]

**Question Number : 9 Question Id : 32718733732 Consider As Subjective : Yes**

Discuss the events occurring during excitation contraction coupling in smooth muscle. [10]

**Question Number : 10 Question Id : 32718733733 Consider As Subjective : Yes**

- a) Audiometry. [3]
- b) Transduction of gustatory stimuli. [3]
- c) Visual cortex. [4]