

# National Board of Examinations

**Question Paper Name :** DNB Physiology Paper3  
**Subject Name :** DNB Physiology Paper3  
**Duration :** 182  
**Total Marks :** 100  
**Display Marks:** No

**Maximum Instruction Time :** 0  
**Is Section Default? :** No

**Question Number : 1 Question Id : 32718745075 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. a) Describe folliculogenesis. [3]
- b) Explain hormonal control of ovarian and endometrial cycle. [4]
- c) Discuss pathophysiology of anovulatory cycles. [3]

**Question Number : 2 Question Id : 32718745076 Consider As Subjective : Yes**

- a) Describe placental transport mechanisms. [3]
- b) Explain fetal circulation shunts. [4]
- c) Discuss causes of fetal growth restriction. [3]

**Question Number : 3 Question Id : 32718745077 Consider As Subjective : Yes**

- a) Describe sarcomere and sarco-tubular system. [3]
- b) Compare the mechanism of muscle contraction in skeletal and smooth muscle. [4]
- c) Discuss pathophysiology of Lambert Eaton syndrome. [3]

**Question Number : 4 Question Id : 32718745078 Consider As Subjective : Yes**

- a) Describe portal circulation of pituitary. [3]
- b) Regulation of growth hormone secretion. [4]
- c) Discuss the pathophysiology of acromegaly. [3]

**Question Number : 5 Question Id : 32718745079 Consider As Subjective : Yes**

- a) Describe thyroid hormone synthesis. [3]
- b) Explain the various thyroid function tests and the regulation of thyroid hormone synthesis. [4]
- c) Discuss Graves' disease. [3]

**Question Number : 6 Question Id : 32718745080 Consider As Subjective : Yes**

- a) Describe the various hearing tests. Differentiate between air conduction and nerve conduction types of deafness. [4]
- b) Explain mechanisms of sound transduction. [4]
- c) Discuss pathophysiology of Meniere's disease. [2]

**Question Number : 7 Question Id : 32718745081 Consider As Subjective : Yes**

- a) Describe types of brain waves. [3]
- b) Explain physiological basis of EEG generation. [4]
- c) Discuss the various neurotransmitters involved in sleep and wakefulness. [3]

**Question Number : 8 Question Id : 32718745082 Consider As Subjective : Yes**

- a) Describe nuclei of hypothalamus. [3]
- b) Explain the mechanism of temperature regulation. [4]
- c) Discuss the pathophysiology of fever. [3]

**Question Number : 9 Question Id : 32718745083 Consider As Subjective : Yes**

- a) Describe the dorsal column system. [3]
- b) Explain pain modulation pathways. [4]
- c) Discuss neuropathic pain. [3]

**Question Number : 10 Question Id : 32718745084 Consider As Subjective : Yes**

- a) Describe sympathetic outflow. [3]
- b) Explain mechanisms of neurotransmitter release at ANS synapses. [4]
- c) Discuss autonomic dysreflexia. [3]