

# National Board of Examinations

**Question Paper Name :** DNB Physiology Paper4  
**Subject Name :** DNB Physiology Paper4  
**Duration :** 180  
**Total Marks :** 100  
**Display Marks:** No

**Maximum Instruction Time :** 0

**Question Number : 1 Question Id : 32718733734 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 sequential ECG changes seen in ST elevation -myocardial infarction, with suitable illustrations. List the common complications associated. [8+2]

**Question Number : 2 Question Id : 32718733735 Consider As Subjective : Yes**

Discuss the molecular mechanisms involved in encoding of memory. Add a note on senile plaques. [8+2]

**Question Number : 3 Question Id : 32718733736 Consider As Subjective : Yes**

Describe the physiological principles underlying:

- Bereitschafts potential. [5]
- Cardio pulmonary exercise testing. [5]

**Question Number : 4 Question Id : 32718733737 Consider As Subjective : Yes**

- Hypoglycemia. [3]
- Intention tremors. [3]
- Cochlear microphonics. [4]

**Question Number : 5 Question Id : 32718733738 Consider As Subjective : Yes**

Define the term "psycho neuroimmunology. Discuss the pathophysiology of stress and its impact on the various organ systems. [1+9]

**Question Number : 6 Question Id : 32718733739 Consider As Subjective : Yes**

- a) Role of insulin resistance in diabetes mellitus. [3]
- b) Fever. [3]
- c) Neural centers involved in sleep. [4]

**Question Number : 7 Question Id : 32718733740 Consider As Subjective : Yes**

Define infertility and discuss its pathophysiological basis. Add a note on assisted reproductive techniques. [8+2]

**Question Number : 8 Question Id : 32718733741 Consider As Subjective : Yes**

Explain the physiological basis of:

- a) Blood pressure variability. [3]
- b) Lateral inhibition and visual contrast mechanism in retina. [3]
- c) Withdrawal reflex. [4]

**Question Number : 9 Question Id : 32718733742 Consider As Subjective : Yes**

Discuss the recent advances in:

- a) Interactive, online teaching tools. [5]
- b) Mechanism of circadian rhythm. [5]

**Question Number : 10 Question Id : 32718733743 Consider As Subjective : Yes**

Explain the clinical relevance of the following tests:

- a) Electroretinogram. [5]
- b) Ankle brachial index. [5]