

FINAL EXAM  
 DECEMBER 2015

NATIONAL BOARD OF EXAMINATIONS

**PATHOLOGY**  
**PAPER – I**

PATH/D/15/32/I

Time : 3 hours

Max. Marks : 100

**Important instructions:**

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

**Write short notes on:**

1.	a) Statistical analysis in research methodology. b) Signal transduction pathways.	5 5
2.	a) Mechanisms of hypertrophy. b) Mechanism of dystrophic calcification. c) Ochronosis.	4 3 3
3.	a) Mechanism and effects of leukocyte activation. b) Abnormalities in tissue repair.	5 5
4.	a) Pathogenesis of thrombus formation and its progression. b) Morphological features observed in irreversible shock.	6 4
5.	a) Angioedema. b) Principles and effects of gene mutations. c) Mechanism of hypercholesterolemia and its consequences.	3 3 4
6.	a) Role of NK cells in immune system. b) Mediators of Immediate hypersensitivity. c) Mechanisms of SLE.	3 3 4
7.	a) Indications for and complications of transplantation of hematopoietic stem cells. b) Role of epigenetic changes in carcinogenesis.	5 5
8.	a) Pathological features of lead poisoning. b) Systemic effects of protein energy malnutrition.	5 5
9.	a) Pathophysiology and lab diagnosis of phenylketonuria. b) Mechanism of apoptosis.	5 5
10.	a) Pathological feature of cryptococcal infection and its lab diagnosis. b) Pathogenesis of atheromatous plaque formation.	5 5

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