

POST-GRADUATE DEGREE (M.D.) EXAMINATION – DECEMBER 2020

Time: 3 Hours

Max. Marks: 100

**PATHOLOGY
PAPER – IV**

*(Systemic Pathology – Central and peripheral nervous system, endocrine system,
Musculo-skeletal system, reticulo-endothelial system (lymph nodes, spleen and Thymus),
Dermatopathology and ophthalmic pathology, bone, joints and soft tissues.
Recent advances and applied pathology)*

Q.P. Code: 1216

Answers should be specific to the Questions asked.
Draw neat labeled diagrams and flow charts wherever necessary.
All questions are compulsory.

Question Number	Marks
LONG ESSAY QUESTIONS:	2 X 20 = 40
1. Explain the etiopathogenesis, pathology and recent concepts implicated in osteoarthritis	(10+5+5)
2. Discuss the role of immunohistochemistry and genetics in the diagnosis of central nervous system	(10+10)
SHORT ESSAY QUESTIONS:	6 X 10 = 60
3. Explain recent advances in thyroid tumors	
4. Explain the role of immunofluorescence in the diagnosis of skin diseases	
5. Explain pathology of thymoma	
6. Explain role of immunohistochemistry in renal cell tumors	
7. Point out enzyme study in muscle disorders	
8. Explain cystic lesions of spleen and describe each	(5+5)

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COMMUNITY MEDICINE

PAPER – I

(History of public health and community medicine, behavioural sciences and health, information, education, communication and counseling, microbiology including entomology, parasitology and immunology, environmental health and ecology, general epidemiology, biostatistics and research methodology)

Q.P. Code: 1229

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Classify the 'adverse events following immunization'? How will you investigate if an 'adverse event following immunization' is reported in your PHC area?
2. Describe the 'Bradford Hill's criteria' for establishing causal association. List the various types of epidemiological study designs.

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Discuss sampling techniques used in epidemiological studies
4. Discuss errors in measurements in experimental study designs
5. Discuss standardized mortality rate and its uses in public health
6. Describe integrated approach for vector control
7. Discuss evaluation of a 'screening test' with a suitable example
8. Explain disinfection of a well with a suitable diagram

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COMMUNITY MEDICINE

PAPER – II

(Diet and nutrition in health and diseases, epidemiology of communicable and non-communicable diseases, occupational health)

Q.P. Code: 1230

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss in detail about 'Vitamin A deficiency' in children and the measures to prevent it in a community
2. Describe the epidemiology of 'dengue fever' and its control measures

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Comment on the strategies adopted for measles elimination in India
4. Discuss prevention of human rabies in India
5. Describe strategies for control of cancers as per 'NPCDCS' in India
6. Discuss epidemiology of road traffic accidents
7. Discuss Iodine deficiency disorders prevention
8. Discuss the ESI Act-1948 in improvement of industrial workers health

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COMMUNITY MEDICINE

PAPER – III

*(Maternal health, child health, demography and family welfare, care of special groups
viz. school health, adolescent health and geriatrics, care of disabled, community based rehabilitation,
tribal health, desert medicine, public health emergencies and calamities)*

Q.P. Code: 1231

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss the causes of 'perinatal mortality' in India. List the activities under National Health Mission to reduce perinatal mortality
2. Enumerate the health problems of urban slum-dwellers. Suggest measures to improve their health status in India

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Discuss adolescents health problems
4. Describe Dependency ratio
5. Describe causes of maternal mortality in India
6. Discuss causes & prevention of Juvenile delinquency
7. Describe first referral unit in high risk approach
8. Discuss couple protection rate and its relation to population stabilization

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COMMUNITY MEDICINE

PAPER – IV

(Health and hospital administration, health care delivery including national programmes, public health legislation, genetics and counseling, mental health, international health, voluntary health organizations, NGOs.)

Q.P. Code: 1232

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number

Marks

LONG ESSAY QUESTIONS:

2 X 20 = 40

1. Discuss in detail the steps in implementing a 'community based mental health program'
2. Describe the activities done under 'National Health Mission'. Write the indicators to evaluate each activity

SHORT ESSAY QUESTIONS:

6 X 10 = 60

3. Discuss the structure and function of Community Health Centre
4. Discuss Cost Effectiveness Analysis versus Cost Benefit Analysis with suitable examples
5. Enumerate elements and principles of Primary Health Care as per WHO
6. Describe with examples the categories under which a budget should be presented
7. Discuss the structure and functions of Central Drug Standard Control Organization (CDSCO)
8. Discuss provisions of PCPNDT Act

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PATHOLOGY

PAPER – I

(General Pathology including environmental pathology / pathophysiology / immunopathology with recent advances and applied pathology)

Q.P. Code: 1213

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

Question Number	Marks
LONG ESSAY QUESTIONS:	2 X 20 = 40
1. Classify Lysosomal storage disorders. Explain in detail about Gaucher's disease	(8+12)
2. Explain the mechanism of metastasis and molecular genetics of development of metastasis	(10+10)
SHORT ESSAY QUESTIONS:	6 X 10 = 60
3. Explain the mechanism of septic shock and morphology of affected organs	(5+5)
4. Explain the mechanism of cell injury	
5. Classify and differentiate various pigments of body	(3+7)
6. Explain Apoptosis in health and disease	
7. Explain Myasthenia gravis pathogenesis and pathology	(6+4)
8. Explain the effects of alcohol	

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PATHOLOGY

PAPER – II

*(Hematology / Clinical Pathology / Cytology / Transfusion Medicine
Recent Advances and applied pathology)*

Q.P. Code: 1214

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

Question Number	Marks
LONG ESSAY QUESTIONS:	2 X 20 = 40
1. Classify Leukemias? Explain the pathogenesis and diagnostic tests of AML	(5+5+10)
2. What are the different techniques used in cytodiagnosis. Explain cytology of neoplastic lesions of thyroid with the recent classification	(4+10+6)
SHORT ESSAY QUESTIONS:	6 X 10 = 60
3. Explain transfusion reactions	
4. Explain the diagnosis criteria and lab diagnosis of Multiple Myeloma	(5+5)
5. Explain semen analysis	
6. Explain laboratory diagnosis of hemolytic anemias	
7. Explain urine sediment cytology	
8. Explain quality control in clinical pathology	

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PATHOLOGY

PAPER – III

*(Systemic Pathology – Cardio vascular system, respiratory system,
gastro-intestinal system including liver & biliary tract, pancreas, renal system, male and
female genital system and breast. Recent advances and applied pathology)*

Q.P. Code: 1215

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams and flow charts wherever necessary.
All questions are compulsory.

Question Number	Marks
LONG ESSAY QUESTIONS:	2 X 20 = 40
1. Explain the pathogenesis of myocardial infarction? Point out laboratory investigations and complications in detail	(6+10+4)
2. Classify tumors of breast? Explain the morphology of common tumors and the prognostic factor	(6+10+4)
SHORT ESSAY QUESTIONS:	6 X 10 = 60
3. Explain granular contracted kidney with causes and description of each	(3+7)
4. Explain pathogenesis and morphology of colonic carcinoma	(5+5)
5. Classify surface epithelial tumor of ovary and explain role of tumor marks in diagnosis	(5+5)
6. Explain Gleason's scoring of prostatic carcinoma	
7. Describe the pathogenesis & morphology of Emphysema	(5+5)
8. Classify Cirrhosis & explain the pathogenesis of Cirrhosis	(5+5)
