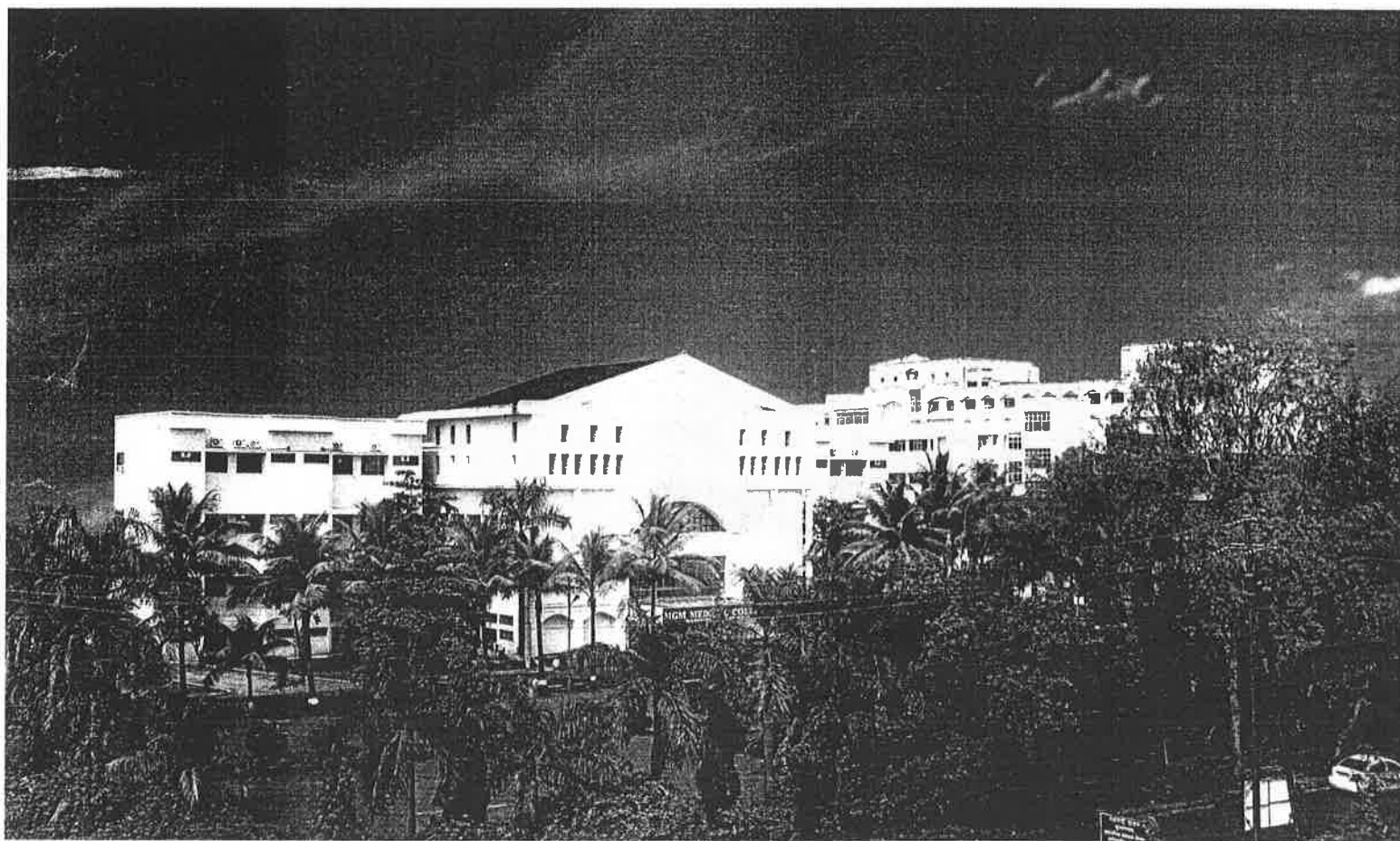


# Curriculum for Diploma Pathology



**IN PURSUIT OF EXCELLENCE**



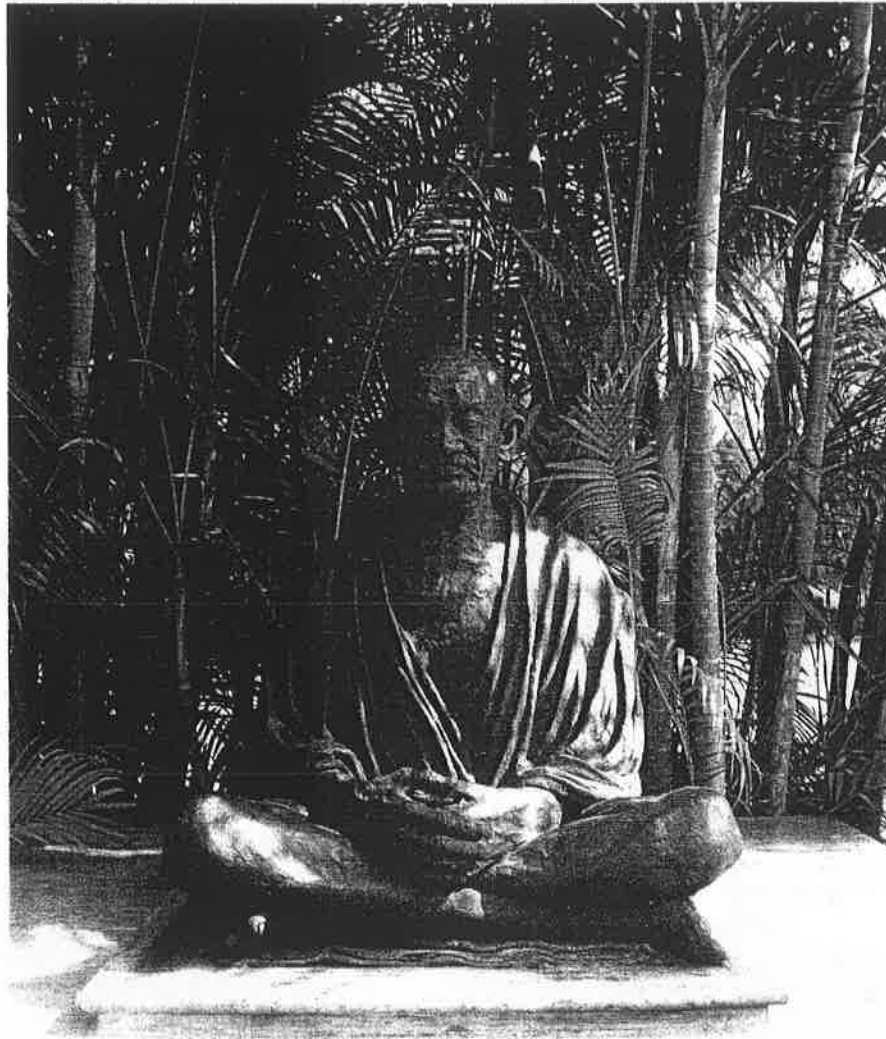
**MGM INSTITUTE OF HEALTH SCIENCES**

(Deemed University Established u/s 3 of UGC Act, 1956)

Navi Mumbai - 410 209

  
[www. mgmuhs.com](http://www.mgmuhs.com)

# INSPIRING MINDS



## Mission

To improve quality of the life for individuals and community by promoting health, preventing and curing disease, advancing biomedical and clinical research and educating tomorrow's Physicians and Scientists.

## Vision

By 2020 the MGM University of Health Sciences will rank one of the top private Medical Institution. This will be achieved through ground breaking **discoveries in basic sciences and clinical research** targeted to prevent and relieve human suffering, **excellence in Medical Education** of the next generation of academic clinicians and intrinsic scientists.

MGM University of Health Sciences will transform the **Education** of tomorrow's Physicians and Scientists conducting Medical **Research** to advance health and improving lives by providing world-class patient care.

Many see the 21<sup>st</sup> Century as the golden age of biomedical research. The MGM University of Health Sciences will position for leadership at the horizon of this new era to promote and stabilise stand human health with a standard of excellence.

## **DIPLOMA IN CLINICAL PATHOLOGY (DCP)**

### **GOAL :**

The goal of postgraduate medical education shall be to produce competent specialist.

- (i) Who shall recognize the health needs of the community and carry out professional obligation ethically and in keeping with the objectives of the national health policy;
- (ii) Who shall have mastered most of the competencies, retaining to the speciality, that are required to be practiced at the secondary and tertiary levels of the healthcare delivery system.
- (iii) Who shall be aware of contemporary advances and developments in the discipline concerned.
- (iv) Who shall be able to organize and establish clinical laboratory.

### **OBJECTIVES :**

At the end of the course a candidate must be able to

- (i) Understand and explain about the factors in causation of disease.
- (ii) Understand processes involved in the gross and microscopic changes of organs and tissues and explain these changes.
- (iii) Understand and explain the basis of evolution of clinical signs and symptoms.
- (iv) Should be able to perform procedures designated for laboratory detection of diseases. Should be able to process and accurately interpret the representative materials obtained from the patients in order to arrive at a correct diagnosis.
- (v) Should be able to recognize and report morphological changes in cells, tissues and organs.
- (vi) Should be able to plan, perform and report specific research projects.

Duration of course : 2 years

**THEORY:**

- General pathology including Immunopathology
- Systemic pathology
- Haematology
- Blood Banking including Transfusion Medicine
- Cytopathology
- Laboratory methods including quality control
- Applied Microbiology & Serology
- Applied Biochemis

**PRACTICAL:**

- 1) Collection and dispatching of samples to laboratory and handling of all equipments
- 2) Hands on experience in techniques, its interpretation and reporting
  - (a) Gram's stain
  - (b) Albert stain
  - (c) Z. N. stain
  - (d) Hanging drop preparation
  - (e) KOH / Lactophenol preparation
- 3) Sterilization techniques, Culture- methods, identification and reporting
- 4) Hands on experience and interpretation of serological tests like Widal, VDRL, HIV, HBV, RF, ASO and Pregnancy tests
- 5) Microscopic examination of stools and reporting
- 6) Clinical Biochemistry- Procedures and interpretations of routine biochemical estimations

10) Techniques and interpretation of various procedures in transfusion medicine

**POSTING SCHEDULE :**

<b>Total Duration</b>	<b>24 Months</b>
1. Cytopathology and Clinical pathology	6 months
2. Haematology and Blood Bank	6 months
3..Histopathology	6 months
4..Biochemistry	1 ½ month
5. Microbiology	1 ½ month
6. Revision in all sections	<u>3 months</u>

**TOTAL 24 months**

**Postgraduate teaching programme should include**

- (A) Grossing seminars
- (B) Slide seminars – Histopathology, Haematology and Cytopathology
- (C) Journal club
- (D) Subject seminars
- (E) Group discussion on clinical cases
- (F) Inter departmental seminars
- (G) Post graduate students should be encouraged to attend CME, Workshops ,Conferences and present papers

## **RECOMMENDED MINIMUM TEXT BOOKS AND JOURNALS**

### **BOOKS:**

1. Cotran, Kumar, Collins. Robin's Pathologic Basis of Disease, published by W.B. Saunders & Company.
2. Ivan Damjanov, James Linder. Anderson's Pathology, published by C.V. Mosby Company.
3. J. B. Walter, M.S. Israel. General Pathology, published by Churchill Livingstone.
4. Emeritus W.ST. Symmers Systemic Pathology, published by Churchill Livingstone.
5. Juan Rosai, Ackerman's Surgical Pathology, published by C.V. Mosby Company.
6. Leopold G Koss, Diagnostic cytology and its histopathologic basis published by J.B. Lippincott Company.
7. Marluce Bibbo, Comprehensive cytopathology, published by W.B Saunders Company
8. Winnifred Grey, Diagnostic cytopathology, published by Churchill Livingstone
9. Orell, Sterrett- Walters and Whittaker, Fine Needle Aspiration Cytology (Manual & Atlas), published by Churchill Livingstone
10. Greer J.P, Foerster J, Jukens J et. al Wintrobe's Clinical Haematology, published by Lippincott Williams and Wilkins
11. Firkin F, Chesterman C, Penington D, de Gruchy's Clinical Haematology in Medical Practice, published by Blackwell Sciences
12. Henry J.B Clinical Diagnostics and Management by Laboratory Methods. published by W.B. Saunders & Company.
13. Lewis S.M, Bain D.J, Bates I, Dacie & Lewis Practical Haematology published by Churchill Livingstone.
14. Hoffbrand A.V, Catovsky D, Tuddenham G.D, Postgraduate Haematology – published by Blackwell publishing
- 15 R.Anantnarayan, C.K.Paniker, Textbook of Microbiology, published by Orient Longman.
16. Harshmohan, Textbook of pathology, published by Jaypee.
17. Parasitology (Protozoology & Helminthology.) in relation to clinical medicine – K.D.Chatterjee – published by Chatterjee Medical Publication.

18. Sudha R.Kini ,Colour Atlas of differential diagnosis in exfoliative and aspiration cytopathology , published by Lippincott, Williams & Wilkins.
19. Praful B. Godkar ,Clinical Biochemistry – Principles & practice , published by Bhalani Publishing House, Bombay.
20. Theory & practice of Histological Techniques edited by John .D.Bancroft- published by Chruchill Livingstone.
21. Mollison P.L, Blood transfusion in clinical medicine, published by Oxford, ELBS & Blackwell Scientific Publication
22. WHO Classification of tumours, published by IARC Press
23. Recent advances in Histopathology, Haematology etc.

#### **JOURNALS:**

1. British Journal of Haematology, published by Blackwell Sciences.
2. CANCER, International journal of American Cancer Society, published by John Wile & sons Inc.
3. Journal of Clinical Pathology, published by B.M.J.
4. Haematology/Oncology Clinics of North America, published by W.B. Saunders & Company.
5. American Journal of Surgical Pathology, published by Lippincott & Raven
6. Indian Journal of Pathology & Microbiology, published by IAPM.
7. Indian Journal of Cancer, published by Indian Cancer Society.
8. Indian Journal of Cytology, published by IAC.
9. LANCET, published by Elsevier
- 10.I.C.M.R. Bulletin, published by ICMR

#### **ADDITIONAL READINGS:**

1. Compendium of recommendations of various committees on health and development ( 1943 to 1975) DGHS, 1985 Central Bureau of Health Intelligence, DGHS, Ministry of Health & Family Welfare, Govt. of India, Nirman Bhavan, New Delhi-335.
2. National Health Policy, Ministry of Health & Family Welfare, Govt. of India, Nirman Bhavan, New Delhi-335. 1983.
3. ICMR, Policy, Statement of ethical considerations involved in research on Human subjects, 1982 ICMR, New Delhi.
4. Code of Medical Ethics framed under Section- 33 of Indian Medical Council Act , 1956 . MCI, Kotla road, New Delhi.





# MGM University of Health Science

## Proposed DCP Examination Pattern Distribution of Practical marks

### Day-1:- Clinical case

Urine examination	20 marks
Biochemistry exercise- 1	20 marks
Haemogram	20 marks
Special haematology exercise-1	10 marks
Case Discussion-	10 marks
Total-80 marks	

### Microbiology exercise

Bacteriology(gram staining, motility, culture, plating and reporting on next day)	40 marks
Serology	20 marks

### Day 2

Morbid anatomy (Gross)	20 marks
Histotechniques – (Block cutting and H&E staining)	20 marks
Slides including discussion-20 slides 5 minutes duration each	100 marks
Histopathology-10 slides	
Cytology(FNAC & exfoliative)-5 slides	
Haematology-05 slides	
Viva voice	15 marks
Communication skill	5 marks
Total practical marks-300	



Prof. Z. G. Bafode  
Registrar,  
MGM Institute of Health Sciences  
Kamotha, Navi Mumbai-401209



# MGM University of Health Sciences

## Proposed DCP Examination pattern

Theory :- 3 papers of 100 marks each

Duration-3 hrs

Topic wise distribution of papers is as follows:-

Paper 1- General pathology including applied microbiology and immunopathology.

Paper 2- Systemic pathology and cytopathology.

Paper 3- Hematology pathology, blood banking, clinical pathology and chemical.

### Marks distribution of papers.

Q1- Compulsory LAQ of 25 marks

Q2-Compulsory LAQ of 25 marks

Q3-SAQ 5/6- 10 marks each.(10x5=50)



Prof. Z. G. Desai

Registrar

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Kamethi, Navi Mumbai-401209





## IN PURSUIT OF EXCELLENCE

### MGM DEEMED UNIVERSITY OF HEALTH SCIENCES

#### Constituent Colleges

##### Navi Mumbai

M.G.M. Medical College  
M.G.M School of Biomedical Science  
M.G.M School of Physiotherapy  
M.G.M New Bombay College of Nursing  
M.G.M College of Nursing

##### Aurangabad

M.G.M. Medical College  
M.G.M School of Biomedical Science  
M.G.M School of Physiotherapy  
M.G.M College of Nursing



MAHATMA GANDHI MISSION

#### AURANGABAD

- MGM's Jawaharlal Nehru Engineering College
- MGM's Institute of Management
- MGM's Mother Teresa College of Nursing
- MGM's Mother Teresa Institute of Nursing Education
- MGM's College of Journalism & Media Science
- MGM's Medical Center & Research Institute
- MGM's College of Fine Arts
- MGM's Dr. D. Y. Pathrikar College of Comp. Sc. & Tech.
- MGM's Hospital & Research Center
- MGM's College of Agricultural Bio-Technology
- MGM's Dept. of Bio-Technology & Bio-informatics.
- MGM's Inst. of Hotel Management & Catering Tech.
- MGM's Institute of Indian & foreign Languages & Comm.
- MGM's College of Physiotherapy
- MGM's Hospital, Ajabnagar
- MGM's Sangeet Academy (Mahagami)
- MGM's Institute Naturopathy & Yoga
- MGM's Sports Club & Stadium
- MGM's Institute of Vocational Courses
- MGM's Horticulture
- MGM's Health Care Management
- MGM's Junior College of Education (Eng. & Mar.)
- MGM's Sanskar Vidyalaya (Pri. & Sec. - Mar.)
- MGM's Clover Dale School (Pri. & Sec. - Eng.)
- MGM's First Steps School (Pre-Primary - English)
- MGM's Sanskar Vidyalaya (Pre-Primary - Marathi)
- MGM's School of Biomedical Sciences

#### NAVI MUMBAI

- MGM's College of Engineering & Technology
- MGM's Institute of Management Studies & Research
- MGM's Dental College & Hospital
- MGM's College of Physiotherapy
- MGM's College of Media Science
- MGM's Institute of Research
- MGM's New Bombay Hospital, Vashi
- MGM's Hospital, CBD
- MGM's Hospital, Kamothe
- MGM's Hospital, Kalamboli
- MGM's Infotech & Research Centre
- MGM's Pre-Primary School (English & Marathi)
- MGM's Primary & Secondary School (Eng. & Mar.)
- MGM's Junior College Science
- MGM's Junior College of Vocational Courses
- MGM's Florence Nightingale Inst. Nursing Edu.
- MGM's College of Nursing
- MGM's College of Law

#### NANDED

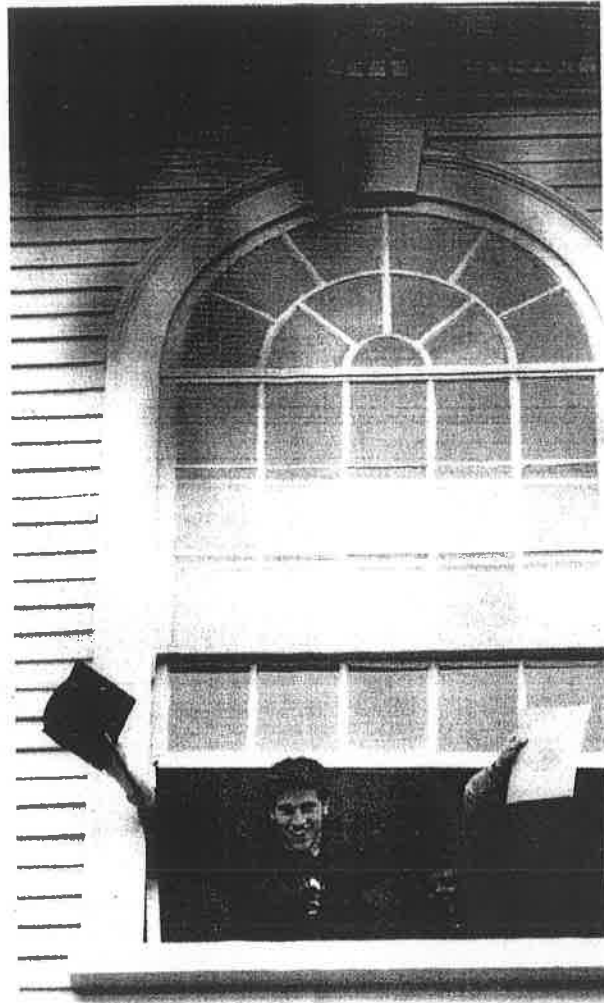
- MGM's College of Engineering
- MGM's College of Fine Arts
- MGM's College of Computer Science
- MGM's College of Journalism & Media Science
- MGM's Centre for Astronomy & Space Tech.
- MGM's College of Library & Information Science

#### PARBHANI

- MGM's College of Computer Science

#### NOIDA (U.P.)

- MGM's College of Engineering & Technology



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(Education - Health Services - Research)  
A Mission started, nurtured and Managed  
by Professional Doctors, Scientists Engineers...



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Website: [www.mgmuhs.com](http://www.mgmuhs.com)

Resolution No. 1.3.7.11 (i) of BOM-51/2017: Resolved that the following Bioethics topics in PG Curriculum are to be included for PG students of all specialization and a sensitization of these topics can be done during PG Induction programme:

- Concept of Autonomy
- Informed Consent
- Confidentiality
- Communication Skills
- Patient rights
- Withholding / Withdrawing life-saving treatment
- Palliative Care
- Issues related to Organ Transplantation
- Surgical Research and Surgical Innovation
- Hospital Ethics Committee
- Doctor-Patient relationship



Resolution No. 1.3.23 of BOM-51/2017; Resolved to implement a Structured Induction programme (07 days) for PG students. [Annexure XI IV]





**MGM INSTITUTE OF HEALTH SCIENCES**  
Navi Mumbai

**Induction Program for newly admitted Postgraduate students**

Day 1	<ul style="list-style-type: none"> <li>• Address by Dean, Medical Suptd, Director (Academics)</li> <li>• Pre-test</li> <li>• Communication Skills</li> <li>• Universal Safety Precautions</li> <li>• Biomedical Waste Management</li> <li>• Infection Control Policy</li> </ul>
Day 2	<ul style="list-style-type: none"> <li>• Emergency services</li> <li>• Laboratory services</li> <li>• Blood Bank services</li> <li>• Medicolegal issues</li> <li>• Prescription writing</li> <li>• Adverse Drug Reaction</li> <li>• Handling surgical specimens</li> </ul>
Day 3	<ul style="list-style-type: none"> <li>• Principles of Ethics</li> <li>• Professionalism</li> <li>• Research Ethics</li> <li>• Informed Consent</li> <li>• Confidentiality</li> <li>• Doctor-Patient relationship</li> </ul>
Day 4	<ul style="list-style-type: none"> <li>• Research Methodology</li> <li>• Synopsis writing</li> <li>• Dissertation writing</li> <li>• Statistics</li> </ul>
Day 5	
Day 6	
Day 7	<ul style="list-style-type: none"> <li>• ATLS</li> <li>• Post-test</li> </ul>

The Induction Program will be conducted in the first week of June.  
Timing: 9.30 am to 3.30 pm

(Prof. Dr. Siddharth P. Dubhashi)  
Director (Academics)





**Resolution No. 4.5.4.2 of BOM-55/2018:** Resolved to have 10 short notes out of 11 (10 marks each) in all the papers in university examination for PG courses including superspeciality. To be implemented from batch appearing in April/May 2019 examination onwards for MD/MS/Diploma and August/September 2019 examination onwards for superspeciality.