



## Index

1.	Centres for DMIMS(DU) AIPMET - 2014	1
2.	Centres for Distribution of the Application Forms	2
3.	Schedule of Admission	3
4.	Important Dates	4
<b>Admission Procedure</b>		
5.	Distribution of Seats	5
6.	Eligibility & Educational Qualification	5 - 6
7.	Submission of Application Form	7
8.	Distribution of Admit Cards	7
9.	Merit List & Admission Session	10
10.	Fee Structure	11 - 12
11.	Annexure - I	13
12.	Annexure - II - Syllabus	14 - 23
13.	Provisional Identity Card	27
14.	Authorisation for Representation	29
15.	Instructions of Answer Sheet	31
16.	Affidavit	32
17.	Medical Fitness Certificate Format	34
18.	Important Instructions to Candidate	35

DMIMS(DU) ALL INDIA PRE-MEDICAL ENTRANCE TEST  
**DMIMS(DU) AIPMET - 2014**

**Prospectus & Application Form**  
for MBBS / BDS / BAMS / B.Sc. Nursing Courses

# Centres for the DMIMS(DU) AIPMET - 2014

## Introduction

**DATTA MEGHE INSTITUTE OF MEDICAL SCIENCES (Deemed University)**

NAGPUR, Maharashtra State, INDIA  
(Declared as Deemed to be University Under Section - 3 of the UGC Act, 1956)

Department of Human Resource Development, Government of India, on the recommendation of University Grants Commission (UGC) has accorded the status of a Deemed University to Datta Meghe Institute of Medical Sciences, for the Faculty of Medicine and for the Faculty of Dentistry, Faculty of Ayurved & Faculty of Nursing.

Since the Govt. of India, on the recommendation of UGC has granted the status of Deemed to be University to Datta Meghe Institute of Medical Sciences, Nagpur, their Degrees and Diplomas would have the same status as of those given by any statutory University that is recognized by the U.G.C. Moreover, prior to coming under the ambit of Deemed University, the Medical College, Dental College, Ayurved College, Nursing College were already recognized by their respective Apical councils i.e. MCI, DCI, CCIM and AYUSH and INC, New Delhi and also by the State & Central Governments.

As such the Medical, Dental, Ayurved & Nursing courses offered by DMIMS(DU) are recognised by Medical Council of India, Dental Council of India, Ayush & CCIM, Indian Nursing Council, New Delhi and the University Grants Commission, New Delhi.

The University has been Reaccredited with 'A' grade by the 'NAAC', Bangalore.

## Admission Procedure

### Entrance Test DMIMS(DU) AIPMET - 14

The **DMIMS(DU) AIPMET-2014** will be conducted at twelve centres in India for selection of candidates for admission to the MBBS/BDS/BAMS/B.Sc. Nursing courses offered by DMIMS(DU), Wardha. The medium of instruction of entrance test is **English**. The Competent Authority, **DMIMS(DU) AIPMET-2014** will conduct the examination, declare the results and display the Merit List and the admissions will be made on the basis of inter-se-merit by the Admission Committee of DMIMS (Deemed University). The Admission Committee consisting of experienced persons will monitor the admission process. The Admission Committee will be responsible for counseling and final admission to the courses.

### DMIMS(DU) All India Pre-Medical Entrance Test - 2014 will be held in the following cities

Sr. No.	City	Exam Centre Code No.
1.	Akola	1
2.	Indore	2
3.	Kolkata	3
4.	Mumbai	4
5.	Nagpur	5
6.	New Delhi	6
7.	Raipur	7
8.	Amravati	8
9.	Aurangabad	9
10.	Kottayam	10
11.	Bilaspur	11
12.	Aizawl	12

Application form - would also be available on the University Website - [www.dmimsu.edu.in](http://www.dmimsu.edu.in)

The application form can also be downloaded. Candidates may fill this form and despatch the same to the University along with a demand draft of Rs. 1500/-, submitted on or before **15<sup>th</sup> May, 2014**.

Demand drafts should be drawn on any nationalised bank, in favour of "**Competent Authority, DMIMS(DU)**", Payable at Nagpur.



The address of the Examination Centre in the city will be notified in the Admit Card of the eligible candidate. The Competent Authority reserves the right to shift the examination City / Centre to the nearest City / Centre in case if sufficient students are not available for a particular City / Centre.

## Centres for Distribution of the Application Form

Distribution of Application Forms and Information Brochures will also be done at the following locations :

Name of Notified Centre & Address	City
Tirupati Urban Co-Op.Bank Ltd.Ground floor, Agrawal Sadan,51, Dadiseth Agiary Lane, Kalbadevi,(Bhuleshwar)	Mumbai
ADCC Infocad Pvt. Ltd.,404, Tantia Jugani Estate, Opp. Lodha Excelus, Near Appolo Mill Opposite N.M. Joshi Marg. Lower (East) 400 011	Mumbai
Tirupati Urban Co-Op. Bank Ltd., Plot No.30, Sector-16, Near Radhikabai Vidyalaya, Airoli-400 708.	Navi-Mumbai
JNMC Campus, Sawangi, Wardha.	Wardha
School of Scholars, Kolu Khed, Hingna -Rd, Akola.	Akola
School of Scholars, Nr. Sapna Engg. College, Opp. Pandit JN College, Badnera Rd., Sai Nagar Post Office.	Amravati
School of Scholars, Civil Lines, Beside Kotpalliwar Petrol Pump, Nagpur Road.	Chandrapur
School of Scholars, Khat Rd, Near Petrol Pump, Khokurla	Bhandara
School of Scholars, Darwha Road, Plot No. P-1, MIDC.	Yeotmal
Tirupati Urban Co-Op. Bank Ltd., Rajmamata Buldg, Kranti Chowk, Jalna Rd.	Aurangabad

Application Forms and Information Brochures are also available at the office of Datta Meghe Institute of Medical Sciences (Deemed University) Atrey Layout, Pratap Nagar, Nagpur -22.  
Ph.: 0712-3256552 Fax : 0712-2245318

Application forms can also be downloaded from University Website - [www.dmimsu.edu.in](http://www.dmimsu.edu.in)

Candidates may fill this form and despatch the same to the University along with a demand draft of Rs. 1500/-, submitted on or before **15<sup>th</sup> May, 2014**.

Demand drafts should be drawn from any nationalized bank, in favour of "Competent Authority, DMIMS(DU)", Payable at Nagpur.

- Cost of Information Brochure and Application Form and Entrance Test Fee Rs. 1,500/- (non-refundable)
- Last date of submission of application form is 15<sup>th</sup> May, 2014

### Submission of Application Form :

By post or in person ONLY at Datta Meghe Institute of Medical Sciences (Deemed University), Atrey Layout, Pratap Nagar, NAGPUR - 440 022

# Schedule Of Admission

## The Schedule of Admissions shall be as follows :

Admissions to the **General Category Candidates** will be made as per the Merit List.

The candidates whose names are included in the Merit List prepared on the basis of marks obtained by them in Physics, Chemistry and Biology taken together at the DMIMS(DU) AIPMET-14, and who fulfil the eligibility criteria mentioned at paragraphs 3, 3.1 and 3.2, should attend the **Admission Session at Office, DMIMS(DU), Sawangi (Meghe), Wardha** as per the following schedule:

Course	Date	Candidates with DMIMS(DU) AIPMET-14 Merit No.	Times
MBBS (Faculty of Medicine)	26-6-2014	001 to 100 101 to 200	11 a.m. to 1.30 p.m. 2 p.m. to 5 p.m.
	27-6-2014	201 to 300 301 to 400	11 a.m. to 1.30 p.m. 2 p.m. to 5 p.m.
BDS (Faculty of Dentistry)	3-7-2014	001 to 500 500 onwards	11 a.m. to 1.30 p.m. 2 p.m. to 5 p.m.
BAMS (Faculty of Ayurved)	7-7-2014	Students having NON-ZERO-SCORE are also eligible	11 a.m. to 1.30 p.m. 2 p.m. to 5 p.m.
B.Sc. Nursing (Faculty of Nursing)	8-7-2014	Students having NON-ZERO-SCORE are also eligible	11 a.m. to 1.30 p.m. 2 p.m. to 5 p.m.

## Note :

- After the declaration of results and publication of the Merit List by the Competent Authority, only those candidates who have secured at least 50 percent marks in the **DMIMS(DU) AIPMET-14** shall be considered eligible for provisional admission to the MBBS/BDS Courses.
- Candidates having NON-ZERO-SCORE are eligible for BAMS & B.Sc. Nursing Courses. Candidates will be admitted on the basis of Merit in the **DMIMS(DU) AIPMET -14** to the courses as per the Merit list.
- **Merit List of candidates will be displayed on our Website [www.dmimsu.edu.in](http://www.dmimsu.edu.in)**  
As large number of candidates appear at several entrance tests in the Country and many candidates, who figure in the Merit List of this **DMIMS(DU) AIPMET-14**, may not eventually seek admission. Considering this **DMIMS(DU)** would call the first **1200** candidates to attend their counseling session for MBBS, BDS, BAMS & Nursing. Consequently, it may so happen to some candidates that all the available seats would be filled before their turn comes.
- The academic year for the First MBBS shall commence from **1st July 2014**.
- The academic year for the First BDS/BAMS/B.Sc. Nursing shall commence from **1st August 2014**.



## Important Dates

A) Last date for submission of the application form to the Competent Authority, DMIMS(DU) AIPMET-14 Office Atrey Layout, Pratap Nagar, Nagpur-22	:	<b>15-5-2014 upto 5.00 p.m.</b>
B) Distribution of Admit Cards to candidates who are considered provisionally eligible for DMIMS(DU) AIPMET -14.  Issue of Duplicate Admit Cards (Duplicate Admit Cards will be issued to the candidates who have not received the Admit Cards)	:	The Admit Cards will be despatched to the candidates by Speed Post  On the Day of Examination i.e. on <b>25th May 2014 (10 a.m. to 12.00 noon)</b> the Admit Cards will be issued to the candidates from the respective Examination Centres allotted to them on production of Receipt cum Identity Card. Details can also be seen on our <b>Website : <a href="http://www.dmimsu.edu.in">www.dmimsu.edu.in</a></b>
C) Centres where the DMIMS(DU) AIPMET-13 will be held	:	Please refer information given on <b>Page No. 1</b>
D) Day, Date & Time of DMIMS(DU) AIPMET - 14	:	<b>Sunday 25<sup>th</sup> May 2014</b> <b>From 1.00 p.m. to 4.00 p.m.</b>
E) Declaration of results	:	<b>15<sup>th</sup> June, 2014</b>
F) Schedule of admission	:	Refer Information given on <b>Page No. 3</b>
G) Venue of admission sessions	:	Office of Datta Meghe Institute of Medical Sciences (Deemed University), Sawangi (Meghe), Wardha
H) Certificates/ Documents to be brought by candidate on the date of admission	:	As mentioned in Annexure- 1
I) Academic session to start on	:	<b>MBBS - 1<sup>st</sup> July 2014</b> <b>BDS/BAMS/B.Sc.(N) - 1st August 2014</b>

### Note :

**Applicant shall ensure that** : He/She has signed the application form at the places specified for the purpose; the application form is also duly signed by his/her mother/father/guardian; and a recent passport size photograph has been pasted in the space earmarked for that purpose on the application form.

# Admission Procedure

## 1. Introduction

1.1 Admissions to first year of MBBS/BDS/BAMS/B.Sc. Nursing Course (except admissions of NRIs/PIO/Foreign Nationals) shall be done on the basis of inter-se-merit of the candidates in the DMIMS(DU) AIPMET-14 conducted by DMIMS(DU), Wardha.

1.1.A The candidates belonging to Foreign National/Persons of Indian Origin / Non-Residential Indian category are exempted from appearing for DMIMS(DU) AIPMET-14.

1.2 DMIMS(DU) All India Pre-Medical Entrance Test [DMIMS(DU) AIPMET-14] will be conducted on **25<sup>th</sup> May 2014** from 1.00 to 4.00 p.m. at the examination centres in following cities : **Akola, Indore, Kolkata, Mumbai, Nagpur, New Delhi, Raipur, Amravati, Aurangabad, Kottayam, Bilaspur & Aizawl** . The exact location and address of the Examination Centre allotted would be mentioned on the Admit Card of candidates and also on the website of DMIMS(DU); [www.dmimsu.edu.in](http://www.dmimsu.edu.in)

1.3 There will be one question paper set containing 200 multiple choice objective type questions; 50 each on Physics, Chemistry & 50 on Biology (Botany & Zoology). These questions shall be set, in general, **on the model syllabus given in Annexure II**. Each correct answer will get one mark. **There is no negative marking for a wrong answer.**

## 2. Intake Capacity and Distribution of Seats

### 2.1 Intake Capacity : Faculty of Medicine, DMIMS (DU), Wardha

The intake capacity for MBBS course was 200 during the academic year 2013-14 as per the approval of MCI & Govt. of India. The renewal of permission for admitting 200 students for MBBS course is awaited from MCI for academic year 2014-15 & Govt. of India.

### 2.1A Intake Capacity : Faculty of Dentistry, DMIMS (DU), Wardha

The intake capacity for the First Year BDS course approved by the Dental Council of India (DCI) and Govt. of India is **100**.

### 2.1A Intake Capacity : Faculty of Ayurved, DMIMS (DU), Wardha

The intake capacity for the First Year BAMS course approved by the Ayush and Govt. of India is **50** & is likely to be increased to **60** subject to approvals from Ayush and CCIM, New Delhi.

### 2.1A Intake Capacity : Faculty of Nursing, DMIMS (DU), Wardha

The intake capacity for the First Year B.Sc. Nursing course approved by the Indian Nursing Council is **100**.

### 2.2 Distribution of Seats :

The distribution of seats will be as follows :

**General Category : Eighty five percent (85%) of**

the total seats of 1st MBBS/BDS/BAMS/B.Sc. Nursing are for the General category. The admissions to this category shall be made on the basis of Inter-se-merit of the candidate qualified at the DMIMS(DU) AIPMET - 14 conducted by **DMIMS(DU)**.

**Foreign National (FN) / Persons of Indian Origin (PIO) / Non Resident Indians (NRI) Category : Fifteen percent (15%)** of the total seats of MBBS/BDS/BAMS/B.Sc. Nursing are for this category. The Foreign Nationals (FN), wards of Person of Indian Origin (PIO) & wards of Non Resident Indian (NRI) shall be considered for admissions in this Category. (Preference will be given to Foreign Nationals and Wards of P.I.O.). The candidates desirous of getting admission under this category are required to submit a separate application to the DMIMS(DU), in the prescribed form which is available in the office of the DMIMS(DU), Nagpur and also on the **Website : [www.dmimsu.edu.in](http://www.dmimsu.edu.in)**. Inter-se-merit of NRI/PIO/Foreign National applicants shall be decided by a Committee appointed by the Competent Authority for this purpose, taking into consideration recognition of examination passed by candidate, on the basis of the academic record/progress of the candidate, the standing of the institution from which the candidate has obtained the entry qualifications, etc.

If seats in the FN/PIO/NRI Category remain vacant, then these vacant seats will be filled from candidates from the General Category on the basis of Inter-se-merit at DMIMS (DU) AIPMET-14. Hence, the General Category candidates who desire to be considered for admission against Vacant Seats in FN/PIO/NRI category and who agree to be governed by the fee structure of FN/PIO/NRI category, will have to submit a separate application which will be available in the office of DMIMS(DU), Nagpur in addition to the application for appearing at DMIMS(DU) AIPMET-14.

### 2.3 Reservation of seats will be as per directions of Government of India for Universities established under section 3 of the UGC Act 1956, as and when received.

### 3. Eligibility for DMIMS(DU) AIPMET-14

Only those candidates, who would satisfy the following eligibility requirements for admission to the course, shall be considered eligible to appear for the DMIMS (DU) All India Pre-Medical Entrance Test (DMIMS (DU) AIPMET-14).

#### 3.1 Nationality and Age

For admission to MBBS/BDS/B.Sc.(N) courses the candidate, shall be an Indian National (For general category admissions) and the candidate must be born on or before 31<sup>st</sup> December 1997 to be eligible to appear for DMIMS (DU) AIPMET-2014, However, for admission to Ayurved candidate must be born on or before 1<sup>st</sup> October 1997. The Birth certificate indicating name of the candidate, Secondary school certificate i.e. SSC or equivalent examination certificate or School Leaving Certificate endorsing the date of birth will constitute a valid proof.





### 3.2 Educational Qualifications

- i) The candidate, seeking admission to the MBBS/BDS/BAMS/B.Sc. Nursing course, shall have passed the Higher Secondary Certificate (H.S.C.) examination/(10+2) or the Indian School Certificate (ISC) Examination or Central Board of Secondary Education (CBSE) Examination or any other examination equivalent to (10+2), (HSC examination of any recognised Board/University, from any school/college situated in India after 12 years of study.) Candidates with other qualifications shall submit "Equivalence Certificate" issued by Association of Indian Universities, New Delhi.
- ii) **Candidates, seeking admission to the MBBS/BDS/BAMS course**, shall have passed HSC or equivalent examination from a recognised Board in the subjects of Physics, Chemistry, Biology and English individually and must have obtained at least 50 percent marks (i.e. 150 out of 300) (40% i.e. 120 out of 300 for candidates belonging to Backward class from Maharashtra) in Physics, Chemistry and Biology taken together in the qualifying examination, i.e., 10 + 2 / HSC or an equivalent examination.
- iii) **Candidates, seeking admission to the B.Sc. Nursing course**, shall have passed HSC or equivalent examination from a recognized Board in the subjects, of Physics, Chemistry, Biology and English individually and must have obtained at least 45 percent marks (i.e. 180 out of 400) (40 percent i.e. 160 out of 400 for candidates belonging to Back Ward class from Maharashtra) in Physics, Chemistry, Biology & English taken together in the qualifying examination i.e. 10+2 / HSC or an equivalent examination.
- iv) Candidates who have appeared or are likely to appear for the qualifying examination i.e. H.S.C. / equivalent etc. and whose results have not been declared at the time of DMIMS(DU) AIPMET-14 shall also be considered eligible to appear for DMIMS(DU) AIPMET-14, provided they have offered the above mentioned subjects at the said examination and its results are declared before the dates of counseling of DMIMS(DU) AIPMET-14.

The candidates who do not fulfill the requirement of clause 3.1, 3.2(i), (ii) & (iii) are advised not to submit their application forms for appearing for DMIMS(DU) AIPMET-14.

If a candidate fails to fulfill the relevant eligibility requirements, mentioned at 3.1 and 3.2 (i), (ii) & (iii) he/she shall not be considered eligible for seeking admission to the MBBS/BDS/BAMS/B.Sc. Nursing course, even if he/she is placed in the Merit List of the DMIMS(DU) AIPMET-14.

### 4. Application Procedure

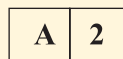
A candidate, desirous of appearing at the DMIMS(DU) AIPMET-14, is required to complete the prescribed application form appended at the end of this brochure and submit the same to the Competent Authority, on or before the scheduled date.

### 5. Instructions for Completing the Application Form (Please see specimen)

This application form is for the Combined Pre-Medical Entrance Test for admission to the MBBS/ BDS/BAMS/B.Sc. Nursing course only.

- 5.1 The candidate shall avoid overwriting, cutting, erasing on the form. Any discrepancies in the statements and/or submission of incomplete form may lead to rejection of the form.
- 5.2 **Black ballpoint pen** shall be used for filling in the application form. All the entries in the form should be in CAPITAL LETTERS only.
- 5.3 Squares provided in the application form are only for writing alphabets in capitals for indicating name, address etc. or for appropriate numbers. The alphabet or the number written in the square must not touch the edge of the square.

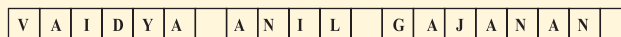
Correct



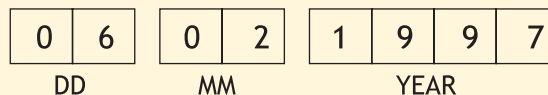
Incorrect



- 5.4 Fill the squares legibly and clearly without overwriting.
- 5.5 The name mentioned in the form by the candidate should be the same as in the documents of 10+2 examination. One square should be used only for one alphabet. Please leave one blank square between adjacent words. For example, the name Vaidya Anil Gajanan should be written as follows :



- 5.6 If the number of the date or month of birth is a single digit, it shall be prefixed with zero. For example, 6th February 1997 should be written as :



- 5.7 The candidate shall mention the Centre Code Number clearly which he/she wishes to appear for the examination.
- 5.8 **A passport size photograph shall be affixed at the appropriate place in the application form.** The photograph shall be firmly affixed by using gum. It should not be pinned. The photograph should not be more than 6 months old.



# Admission Procedure

- 5.9 The declaration in the application form should be signed both by the applicant and the mother/father/guardian of the applicant.
- 5.10 Address should be written in capital letters.
- 5.11 Candidates are not required to enclose originals or photocopies of any certificates with the application form.
- 5.13 An incomplete application form shall not be entertained and processed. Please note that fee (Rs. 1500/-) is non refundable.

## 6. Submission of Application Form

- 6.1 **Application Form to be submitted to the Competent Authority, DMIMS(DU) AIPMET-14, Atrey Layout, Pratap Nagar, Nagpur only.** (Candidates are advised to obtain & keep a Xerox copy of Application Form. This may be useful for obtaining duplicate Admit card, if required. **The application must reach by Post or in person, on or before the Last Date i.e. 15<sup>th</sup> May, 2014 upto 5.00 p.m..**
- 6.2 The office of the Competent Authority, DMIMS(DU) AIPMET-14 shall not be responsible for any delay or loss in transit of the Application Form/Admit Card/or any other communication. Such a delay shall not be condoned.

## 7. Distribution of Admit cards

The Admit Card is very important. This will be issued based upon the candidate's submitting the form complete in all respects before the last date for submission of application forms. The Admit cards will be despatched to the candidates by "Speed Post". The University will not be responsible for non-receipt of Hall Ticket in time due to postal delay. In case, a candidate does not get the Admit card by **23rd May 2014**, he/she should immediately contact the Co-ordinator by phone or fax/ Email. Since the Admit card is an important document, candidates must not tamper with the same or make any changes in the entries made by the Admission Committee. The Admit cards must be produced at the time of entering the Examination Hall at the centre and later, when necessary and also at the time of counselling. The Admit card is not transferable to any other person. The Admit cards of the candidates along with the name and address of the Examination Centre allotted to him will also be displayed on the website of the University. The candidates have to report for the examination at the Examination Centre allotted to him.

On the day of the Examination i.e. **25<sup>th</sup> May 2014** the Duplicate Admit Cards will be issued to the candidates from the respective Examination Centres allotted to them between 10 a.m. to 12 noon, on showing their Receipt cum Identity Card.

## 8. Conduct of DMIMS (Deemed University) All India Pre-Medical Entrance Test - 2014

- 8.1 The test shall be conducted in all the cities as mentioned on **Page No. 1** in this brochure. The candidates must report at least **1 Hr.** before the scheduled time of commencement of the test at their **Allotted Centres.**
- 8.2 The Centre, once allotted, shall not be changed.
- 8.3 The examination hall shall be opened 30 minutes before the commencement of the test. Candidates are expected to take their seats at least 25 minutes before the commencement of the test. If the candidates do not report in time they are likely to miss some of the important instructions announced in the examination hall.
- 8.4 Candidates shall not be allowed to appear for the test if they reach the exam hall after **1.00 p.m.**
- 8.5 The candidates must bring their **Admit Cards** and show the same, on demand, for admission to the examination hall. A candidate, who does not have the Admit Card shall not be allowed to appear for the test under any circumstances.
- 8.6 A seat in the exam hall, with a number, shall be allotted to each candidate.
- 8.7 A candidate shall not be allowed to carry inside the exam hall any text material, printed or handwritten, chits or any other material except the Admit Card. The candidate shall not be permitted to bring calculators, slide rules, log table, electronic watches with facilities of calculators, laptop computers, personal stereo systems, walkie-talkie sets, paging devices, mobile telephones or any other such objects/ devices. Possession or use of such devices during the test is prohibited and the candidate will be liable to be expelled if found using or possessing them.
- 8.8 Parents, relatives or friends of the candidates will not be allowed to enter into the premises of the Centre.
- 8.9 Candidates are advised to bring with them a card board or a clip board, on which nothing should have been written. The board shall be useful to them while writing their responses in the answer sheet.
- 8.10 Smoking in the examination hall is strictly prohibited. Beverages or snacks of any kind are not allowed to be taken into the exam halls during the examination.



- 8.11 Candidates shall maintain perfect silence and discipline in the exam hall. Any conversation, gesticulation or disturbance in the exam hall shall be considered as misbehaviour and the candidates involved in such mis-behaviour shall be expelled from the exam hall. Similarly, if any candidate is found using unfair means or allowing someone else to impersonate him / her, his/her candidature for the exam shall be cancelled on the spot.
- 8.12 During the test time, the Invigilator shall check the Admit Cards of the candidates to satisfy himself/herself about the identity of each candidate. **The Supervisor shall also put his/her signature in the place provided in the Answer Sheet on SIDE- 1.**(Refer specimen answer sheet paper -Annexure -III)
- 8.13 After completing the test and before handing over the Question Booklet and the Answer Sheet back to the Invigilator, the candidate shall check once again to see whether all the particulars required in the Question Booklet and the Answer Sheet have been correctly written. He shall ensure that the Seat Number, Centre Code, the Question Booklet number and version are correctly written on the answer sheet.
- 8.14 A warning bell shall be sounded 10 minutes before the beginning of the test and also be sounded 10 minutes before the closing time.
- 8.15 The Answer Sheets should not be folded & mutilated.
- 8.16 No candidate will be permitted to leave the hall before scheduled time of completion of the paper.
- 9. Mode of the Test**
- The test consists of one question paper. The question paper consists of two hundred objective-type questions on Physics, Chemistry (50 on each of them). Biology (Botany & Zoology) (50 each questions). The duration of the test is 3 hours.
- 10. Question Booklet**
- 10.1 After distribution of Question booklet, candidates must immediately ensure that they have received complete question booklet. Subsequent representation will not be entertained.
- 10.2 Candidates shall maintain silence and attend to their papers only. Any disturbance in the examination hall shall be deemed as misbehaviour and the candidate shall forfeit the right to continue to write in the examination. The decision of the Centre Supervisor shall be final conclusive.
- 10.3 Candidates will be provided with a Question Booklet 5 minutes before the scheduled time of the Test. The candidate shall write with **2B**

**Pencil or Black ball point pen**, the required information regarding: Seat Number, Name, Centre Code and Answer Sheet number in the columns on the Question Booklet.

- 10.4 In the Question Booklet, there will be 200 items/questions serially numbered from 001 to 200. Each item shall have four options marked (A), (B), (C) and (D). Out of these four options, only one will be correct. The correct options should be selected and marked on the answer sheet.
- 11. The Answer Sheet (Please read instructions at Annexure - VI)**
- 11.1 An answer sheet shall be given to the candidates 15 minutes before the scheduled time of the test. Please refer to specimen answer sheet. (Refer Annexure III)
- 11.2 This answer sheet is of a special type and will be scanned on the computer by ICR. Therefore, the candidate shall handle the answer sheet very carefully. There will be two sides of the answer sheet.
- 11.3 SIDE - I**
- This side of the answer sheet begins with roll number/instructions. The following information is to be filled neatly and accurately with a **2B Pencil or Black ball point pen** only :
- DMIMS(DU)AIPMET-14 Roll Number  
(In numerals & words)
  - Question Booklet Version
  - Question Booklet Serial Number  
(In numerals & words)
  - Answer Sheet No.
  - Signature of the Candidate with date
  - Signature of the Supervisor with date**
- Each Question Booklet has a number. Write it at the appropriate place.
- 11.4 SIDE-II**
- This side is to be used for marking responses to questions numbered 001 to 200. First, enter your DMIMS(DU) AIPMET-14 Roll Number, Question Booklet Serial Number, Question Booklet Version and Name of the candidate with **2B Pencil or black ball point pen** only. For every question number, four circles are provided with alphabets A, B, C and D. The letters A, B, C, and D appear within the circles. The candidates must indicate their response to the question by darkening the appropriate circle completely with a **2B Pencil or black ball point pen**.
- For example:
- Q. 3 Gateway of India is located in
- Mumbai
  - Delhi
  - Agra
  - Jaipur
- The correct response is (A). The candidate will locate question number in the answer sheet and darken the circle (A) as shown below :

# Admission Procedure

## Correct Method

Q.No.	A	B	C	D
1	(A)	(B)	(C)	(D)
2	(A)	(B)	(C)	(D)
3	●	(B)	(C)	(D)
4	(A)	(B)	(C)	(D)

If the candidate darkens more than one circle or if he does not mark his response as shown above and marks his response as shown below, his response will be treated as wrong and will not be given marks.

## Wrong Method

Q.No.	A	B	C	D
1	(A)	(B)	(C)	(D)
2	(A)	(B)	(C)	(D)
3	○	X	●	✓
4	◐	(B)	○	(D)

**Note :** Use 2B Pencil or black ball point pen only for marking responses (answers) on side-II of the answer sheet.

- 11.5. The candidates are advised to decide about the answer before they mark it on the answer sheet. They should ensure that the circle is completely darkened with a 2B Pencil or black ball point pen only. A lightly or faintly darkened circle is a wrong method of marking and may be rejected by the ICR.
- 11.6. If the candidate does not want to attempt any particular question, he is advised to leave circles given against that question blank.
- 11.7. The candidate shall not fold the answer sheet ; nor shall he/she make any stray marks on it.
- 11.8. A specimen copy of the answer sheet is given at Annexure - III. Candidates are advised to go through it and get conversant with it. The candidate shall learn from this answer sheet as to how to fill in the information asked for and how to mark the answers. This shall help the candidates to do the things correctly and save their time.
- 11.9. Each correct response shall be awarded one mark. There shall be no negative marking for wrong answers. Scratching, overwriting, tick mark and multiple answers will be considered as wrong answers and no marks would be awarded to them.
- 11.10 Required log books etc. will be provided on demand.

## 12. Changing an answer

12.1 If the candidate wants to change any answer marked by him on the answer sheet, he shall completely erase the existing mark and then darken the appropriate circle with 2B Pencil. Candidates must not leave any visible mark in the circle after erasing. Otherwise the response may be rejected by the ICR. Such erasing can be avoided if the circles are darkened thoughtfully.

12.2 Question booklet number, as filled in by the candidate in the answer sheet, shall be accepted' as final for the purpose of evaluation. When the booklet number is left blank or more than one booklet numbers are indicated on the answer sheet, it shall be deemed as incorrect booklet number and such answer sheet shall not be evaluated.

## 13. Pens, Erasers and Pencils

The candidate shall bring his own materials such as 2B Pencil or black ball point pen. Any other pencil shall not be used. In case any pen other than ball point pen of any colour other than black is used, the answer sheet may be rejected by the ICR. Under such circumstances the entire responsibility shall rest with the candidate. The candidate must also bring his own sharpener and eraser of good quality.

## 14. Important instructions for marking

- 14.1 Use only 2B Pencil or black ball point pen to darken the appropriate circles.
- 14.2 Marking should be dark and should completely fill the circle.
- 14.3 Darken only one circle for each question.
- 14.4 Do not fold the answer sheet or make any stray marks on it.
- 14.5 Make the marks only in the spaces provided.

## 15. Rough Work

The candidate shall not do any rough work or writing work on the answer sheet. All rough work shall be done on the rough paper provided in the Question booklet itself for rough work.

## 16. Merit List

- 16.1 The Competent Authority shall prepare a Merit List of the candidates who have appeared for DMIMS(DU) All India Pre-Medical Entrance Test-14, in accordance with the total marks obtained by them in Physics, Chemistry, Biology (Botany & Zoology) taken together. The Candidates shall attend the Institute for admission as per Merit List Ranking in list and as per schedule of admission given in this brochure on **Page No. 3** at his own cost.
- 16.2 Names of only those candidates who have obtained 50% or more marks (100 or more out of 200) in DMIMS(DU) AIPMET-14 shall be included in the Merit List for admission to Faculty of Medicine & Dentistry. This list will be displayed on the website i.e. [www.dmimsu.edu.in](http://www.dmimsu.edu.in). For Counseling and Admission Session please refer to





**Page No.3. There shall be no verification of marks or reassessment of papers of DMIMS(DU) AIPMET-14.**

16.2 Names of only those candidates who have obtained 50% or more marks (100 or more out of 200) in DMIMS(DU) AIPMET-14 shall be included in the Merit List for admission to Faculty of Medicine & Dentistry. This list will be displayed on the website i.e. [www.dmimsu.edu.in](http://www.dmimsu.edu.in). For Counseling and Admission Session please refer to **Page No. 3**.

Candidates who have appeared in DMIMS(DU) AIPMET and are not eligible for MBBS/BDS courses but are interested in taking admission to BAMS/B.Sc. Nursing courses can attend the counselling as per schedule mentioned on page No. 3.

**16.3 Tie-breakers**

In case of equal marks at the DMIMS(DU) AIPMET-14, the following procedure shall be adopted for deciding inter-se merit :

First level : A candidate with higher marks in Biology at the DMIMS(DU) AIPMET-14 shall be preferred. If the tie still persists, then-

Second level : A candidate with higher marks in Chemistry at the DMIMS(DU) AIPMET-14 shall preferred. If the tie still persists, then-

Third level : A candidate with higher percentage of aggregate marks at SSC examination shall be preferred, if tie still persists, then

Fourth level : An older candidate shall be preferred over a younger candidate.

16.6 A candidate will have to deposit his/her all relevant original certificates, documents along with the complete tuition fees at the time of admission failing which admission will be cancelled.

16.8 Only candidates and one parent/guardian will be allowed in the hall where counseling will be held. The candidates will be called in the order of their merit and offered the seats available at that point of time. The candidates will be permitted to choose any of the seats available when his/her turn comes.

**17. Admission Session**

17.1 The admission sessions will be conducted at the office of **DMIMS (Deemed University), Wardha** as per the schedule given on **Page No.3** of this brochure.

17.2 If selected, the candidate will have to attend admission sessions, as per the schedule given on **Page No. 3** of this brochure.

17.3 Only the candidate and one of his/her parents/guardian shall be allowed into the admission hall. The candidates shall be called in the order of their ranking in the Merit List.

**17.4 IMPERSONATION**

During the counseling if it is found that Candidates appearing in the counseling indulge in any case of impersonation that is not matching the photographs / signature / documents of the candidates etc., he/she will be handed over to the police and the cases will be dealt as per the Indian Penal Code in this matter and if

required the cases will be handed over to Appropriate Law enforcing agency for further investigation.

17.5 The candidate must note that appearance at DMIMS(DU) AIPMET-14 and inclusion of name in the Merit List does not necessarily mean that he/she shall get admission to the MBBS / BDS / BAMS / B.Sc. Nursing courses. His/her admission to the MBBS / BDS / BAMS / B.Sc. Nursing course shall depend upon the availability of seats at the time of his/her counseling.

17.6 At the time of reporting for the admission, the candidate shall produce the documents (original and two sets of photocopies) as per list given in Annexure-I. If the candidate is admitted to the MBBS / BDS / BAMS / B.Sc. Nursing course, these documents shall be retained by the Deemed University till he/she completes the course. If the candidate fails to produce all or any of the documents listed in Annexure - I and affidavit as per Annexure - VII his/her claim for a seat shall stand instantaneously forfeited.

17.7 The selected candidate shall be required to pay the entire amount of Tuition fee and such other fees as decided by Competent Authority of the University on the day of admission itself through **cash or bank draft drawn on a nationalized bank favoring "Dean, Faculty of Medicine", for the M.B.B.S. Course, "Dean, Faculty of Dentistry" for the B.D.S. Course, "Dean, Faculty of Ayurved", for B.A.M.S. Course, "Dean, Faculty of Nursing" for B.Sc.(N) Course - payable at Wardha**. In case the candidate fails to pay the entire amount of fees, he / she may lose his / her claim for admission to that seat.

17.8 Failure to attend the counseling or to pay the fees at the time of admission or failure to submit all the necessary documents in original may result in automatic forfeiture of the claim of the candidates for the selection or cancellation of admission subsequently.

17.9 If any candidate finds it impossible to be physically present for the admission session due to unavoidable circumstances, he/she may authorise (**As per Annexure - V**) any other responsible individual to represent him/her for the admission session. This representative must carry with him/her the letter of authorisation in the given format as well as all the documents listed in **Annexure I**, their original certificates & two sets of photocopies and DD for tuition & other fees. If the candidate or his/her representative fails to report for the admission session on the date and time mentioned in the schedule of admission, his/her claim for admission to the MBBS / BDS / BAMS / B.Sc. Nursing course shall stand forfeited.

17.10 In case of dispute in the matter of allotment of course or any other matter pertaining to the provisional selection or cancellation of admission, the decision of the Competent Authority shall be final and binding.

17.11 When all the seats in a given course are filled, admission of students to that course will instantaneously cease and Competent Authority, DMIMS(DU) will not be responsible for non availability of the seats and non allotment to the rest of the candidates.

# Admission Procedure

17.12 Candidate selected for admission shall abide by the Rules of the University/Institution.

17.13 Admissions made at the admission sessions are provisional. These will be confirmed after verification of eligibility and equivalence by the University.

## 18. Vacant Seats

18.1 Seats which remain vacant after the admission sessions scheduled process is over or seats which fall vacant due to a candidate forfeiting the same shall be filled in on the basis of higher inter- se- merit amongst the candidate in the vacant seats admission rounds which shall be notified on the website as well as on the college and the University Notice Board before the cut off date is over.

(Note: cut off date for MBBS/BDS/B.Sc (N) 30th September & for BAMS is 30th October 2014)

## 19(a) Fee Structure : Faculty of Medicine DMIMS (Deemed University), Wardha

Annual fees structure for candidates under different categories shall be as follows :

Bachelor of Medicine & Surgery (MBBS)

Four & Half Years Degree Course & One year Compulsory rotator internship

Category	Per Annum fee
General	₹ 6,75,000/-
NRI/PIO/Foreign National	USD \$ 23,000

The above fees shall be increased by 5% every year

## 19(b) Fee Structure : Faculty of Dentistry, DMIMS (Deemed University), Wardha

Bachelor of Dental Sciences (BDS)

Four Years Degree Course & One year Compulsory rotator internship

Category	Per Annum fee
General	₹ 2,93,000/-
NRI/PIO/Foreign National	USD \$ 8,000

The above fees shall be increased by 5% every year

## 19(c) Fee Structure : Faculty of Ayurved, DMIMS (Deemed University), Wardha

Bachelor of Ayurved Medicine & Surgery (BAMS)

Four & Half Years Degree Course & One year Compulsory rotator internship

Category	Per Annum fee
General	₹ 2,50,000/-
NRI/PIO/Foreign National	USD \$ 4,000

The above fees shall be increased by 5% every year

## 19(d) Fee Structure : Faculty of B.Sc. Nursing, DMIMS (Deemed University), Wardha

Bachelor of Nursing Course (B.Sc. Nursing)

Four Years Degree Course

Category	Per Annum fee
General	₹ 55,000/-
NRI/PIO/Foreign National	USD \$ 1,500 (including University Fee)

Thus, the fees for the students in category 19(a), 19(b), 19(c) & 19(d) would be as under -

### For MBBS Course :

For the year 2014-15	₹ 6,75,000
For the year 2015-16	₹ 7,08,750
For the year 2016-17	₹ 7,44,188
For the year 2017-18	₹ 7,81,397
For the year 2018-19	₹ 3,90,699

### For BDS Course :

For the year 2014-15	₹ 2,93,000
For the year 2015-16	₹ 3,07,650
For the year 2016-17	₹ 3,23,033
For the year 2017-18	₹ 3,39,185

### For BAMS Course :

For the year 2014-15	₹ 2,50,000
For the year 2015-16	₹ 2,62,500
For the year 2016-17	₹ 2,75,625
For the year 2017-18	₹ 2,89,410
For the year 2018-19	₹ 1,44,705

### For B.Sc. Nursing Course

For the year 2014-15	₹ 55,000
For the year 2015-16	₹ 55,000
For the year 2016-17	₹ 55,000
For the year 2017-18	₹ 55,000

Course	University Fee	
	(One Time)	For NRI
MBBS	₹ 50,000	USD \$ 2000
BDS	₹ 50,000	USD \$ 2000
BAMS	₹ 50,000	USD \$ 2000
B.Sc. Nursing	₹ 7,000	



**Hostel Fees shall be charged extra as prescribed by the Competent Authority**

**20. Rules for Refund of Fees : As per UGC's Circular Cancellation and Refund**

In terms of the Public Notice F.No. 1-3/ 2007 (CPP-II) dated 23rd April, 2007 from the University Grants Commission, New Delhi and as decided in the meeting of the Board of Management held on 29th June, 2007; a student who is admitted through counseling and is desirous of withdrawing/ cancelling his/her admission to the course before the start of the concerned course, an amount of Rs. 1,000/- towards processing charges will be deducted from the total fees deposited by the student and rest of the fees shall be refunded to the student along with his / her original certificates.

If a student withdraws/ cancels his/her admission after joining the course but before the last date of admission prescribed in this regard and if such vacant seat is filled by another candidate by the last date of admission, then the fees paid shall be proportionately deducted for the period the student has attended the college along with proportionate deduction of hostel fees and the balance fee along with original certificates will be returned to the student.

Admissions to the MBBS / BDS / BAMS / B.Sc. Nursing programme can be cancelled at the request of the student on submission of an application. Refund of the fees in such cases shall be done as per the rules mentioned above.

**IMPORTANT** - If a student admitted to the MBBS / BDS / B.Sc Nursing programme, leaves the course at any time after 30th September, 2014 (For BAMS 30th October, 2014) or his admission is cancelled for not fulfilling the eligibility criteria or for any disciplinary action he/she shall be required to pay the full amount of tuition fees and other fees for the remaining entire duration of the MBBS / BDS / BAMS / B.Sc. Nursing programme.

**20.1 Discipline :**

a) Any candidate/authorized representative or accompanying person is found obstructing the admission process, trying to influence in unlawful

manner/creating nuisance, the candidate shall be liable for disqualification from the process of selection. The decision taken by the Competent Authority in this respect shall be final and binding.

b) A candidate selected shall be subject to the disciplinary rules of the University.

c) Possessing Four wheelers in the campus is strictly prohibited.

d) Hostel admission shall be done in the designated hostels only.

**21. Hostel Accommodation :**

Hostel & Mess facilities are available to all students of MBBS/BDS/BAMS and B.Sc. Nursing with telephone and internet facilities. Hostel admission is compulsory for all students except for those whose parents reside in Wardha town.

**22. Ragging :**

As per the directives of the Hon'ble Supreme Court of India and Raghvan commission report, Ragging in any form is a punishable offence and committing this act of indiscipline shall result in instant cancellation of the concerned student's admission to the course in which case he/she will have to pay Fee for entire duration of course.

**23. Disputes :**

Differences of opinion and disputes arising in the interpretation and implementation of the clauses in this brochure, if any, shall be referred to Vice Chancellor, **DATTA MEGHE INSTITUTE OF MEDICAL SCIENCES (DU), WARDHA** and his decision shall be final and binding on all concerned.

**24. Court Jurisdiction :**

Any legal dispute arising out of the admission procedure of the MBBS/BDS/BAMS and B.Sc. Nursing course and refund of fees of the DMIMS(DU) shall be under Nagpur Jurisdiction only.

**25. Differently abled students:**

- 1) Preferential allotment of rooms on the ground floor of the hostel.
- 2) Transport facility in the campus.
- 3) Ambulatory facilities
- 4) Special sitting arrangements in Lecture, labs and Library.
- 5) Special arrangements in the toilets.

**26. Warning :**

**Candidates seeking admissions to the MBBS/BDS/ BAMS and B.Sc. Nursing course of DMIMS (DU) are warned against possible cheating by unscrupulous persons who may promise and assure seats by extracting large sum of money from the parents/candidates. All admissions are granted strictly according to merit & students are warned not to indulge in any negotiations with any unscrupulous element for seeking admission to the institution.**

## ANNEXURE - I

### LIST OF DOCUMENTS REQUIRED WHILE REPORTING FOR PROVISIONAL ADMISSION

At the time of seeking admission, the candidate shall produce the following documents in original. Failure to do so shall result in instantaneous cancellation of his / her claim for admission. He / she shall also submit two photocopies of each of the following documents:-

1. For date of birth - SSC Certificate
2. Certificate of Domicile/Nationality Certificate/Valid Passport/Birth Certificate.
3. A certificate from the Principal/Headmaster of the School for having studied for 11th and 12th standard in India.
4. Statement of marks of Std X examination or Board Certificate
5. Statement of marks of Std XII examination.
6. Transfer certificate (School/College leaving) from the institution in which the candidate had last studied.
7. Migration certificate
8. Certificate of Medical Fitness from a Registered Medical Practitioner as per format enclosed herewith.
9. An affidavit of Rs. 100/- on Judicial Stamp Paper in the model format given in Annexure VII signed by his/her Parent/Guardian in the presence of Notary.
10. Four recent passport size photographs. (Should not be more than six months old) with the candidate's name written on the back side.
11. DMIMS(DU) AIPMET-2014 Marksheet.





# Syllabus for DMIMS(DU) AIPMET - 2014

# ANNEXURE - II

## PHYSICS

### 1. MEASUREMENT

- 1.1 Scope of physics, nature of physical laws
- 1.2 Need for measurements
- 1.3 Unit of measurements
- 1.4 System of Units :
  - S.I. Units
  - Fundamental & derived units
  - Length, mass & time measurements
- 1.5 Accuracy & errors in measurements
- Significant figures
- 1.6 Dimensional analysis & its applications

### 2. KINEMATICS

- 2.1 Uniform & non uniform motion, graphical representation of (a) position - time (b) velocity-time
  - Average speed & instantaneous velocity
  - Unit
- 2.2 Concept of frame of reference
- 2.3 Scalars & vectors
  - Relative velocity
  - Resolution of vectors
  - Unit vectors
  - Addition & subtraction of vectors
- 2.4 Scalar & Vector Product of vectors
- 2.5 Projectile motion
  - Equation of the projectile path
  - Time of flight
  - Horizontal range
  - Maximum height

### 3. LAWS OF MOTION

- 3.1 Newton's first, second & third law of motion
- 3.2 Conservation of linear momentum & its application
- 3.3 Impulse
- 3.4 Origin & nature of frictional forces
  - Laws of friction (static & kinetic)
  - Rolling frictions
- 3.5 Dynamic of U.C.M.
  - Centripetal & centrifugal force
  - Angular displacement, velocity & acceleration in U.C.M. & non U.C.M.
  - Banking of roads, angle of banking, (vehicle on level circular road)
  - Vertical circular motion & equation for velocity at different position

### 4. Work Energy & Power

- 4.1 Work done by a constant force & variable force
- 4.2 Kinetic energy work energy theorem, power
- 4.3 Idea of potential energy of a spring
- 4.4 Conservation of mechanical energy (KE & PE)
- 4.5 Elastic & inelastic collisions in one & two dimensions

### 5. Motion of System Of Particles & Rigid Body

- 5.1 Centre of mass of two particles system
  - of rigid body
  - particles system
  - uniform rod
- 5.2 Moment of force, torque
  - Angular momentum
  - Conservation of angular momentum with examples
- 5.3 Equilibrium of rigid bodies
  - Rigid body rotation & equation of rotational motion
- 5.4 Moment of Inertia, K.E. of rotating body
- 5.5 Radius of gyration & its physical significance
- 5.6 Parallel & perpendicular axes theorem and its applications
  - Values of moment of inertia for simple geometrical objects

### 6. Gravitation

- 6.1 Newton's (Universal) law of gravitation
- 6.2 Acceleration due to gravity & its variation with (a) altitude (b) depth
- 6.3 Orbital velocity, escape velocity of a satellite, periodic time
- 6.4 Kepler's laws of planetary motion
- 6.5 Geostationary satellite

### 7. Properties of Bulk Matter

- 7.1 Elastic behaviour, stress-strain relationship
  - Hooke's law
  - elastic constants  $Y, K$  and  $\eta$
  - Poisson's ratio
  - Elastic energy
- 7.2 Viscosity, Stokes law, terminal velocity
  - Streamline and turbulent flow
  - Critical velocity
  - Reynold's number
  - Bernoulli's theorem & its applications
- 7.3 Surface energy & surface tension
  - Angle of contact
  - Excess of pressure
  - Application of surface tension
  - Surface tension idea of drop & bubble
  - Capillary rise
- 7.4 Thermal expansion of solids liquids & gases
  - Anomalous expansion, heat & temperature
  - Specific heat capacity
  - Calorimeter
  - Change of state, latent heat
- 7.5 Heat Transfer
  - Conduction & thermal conductivity, convection & radiation
  - Qualitative ideas of Black body Radiation
  - Wein's displacement law
  - Green House effect

7.6 Newton's law of cooling, Stefan's law, Kirchhoff's law

## 8. Thermodynamics

8.1 Thermal equilibrium & definition of temperature (zeroth law of Thermodynamics)

- Heat, work & internal energy

8.2 First law of Thermodynamics

- Isothermal & adiabatic processes

8.3 Second law of the thermodynamics

- Reversible & irreversible processes, Heat engines & refrigerators

## 9. Behaviour of Perfect Gas and Kinetic Theory of Gases

9.1 Equation of state of a perfect gas

9.2 Work done on compressing a gas

9.3 Assumption of kinetic theory of gases, concept of pressure, mean free path

9.4 Kinetic energy & temperature, degree of freedom, rms speed

9.5 Law of equi-partition of energy (statement only)

- Application to specific heat capacity of gases

9.6 Kirchhoff's law of radiation, Stefan's law

9.7 Absorption, Emission and Reflection of heat radiation

9.8 Emissive power and absorptive power

9.9 Perfectly black body

## 10. Oscillations & Waves

10.1 Periodic oscillatory motion, displacement as a function of time

10.2 S.H.M. & its equation, phase

10.3 Oscillations of spring, restoring force & force constant, energy in S.H.M.

10.4 Expression for time period of simple pendulum

10.5 Free oscillation, force and damped oscillations, resonance

10.6 Wave motion, longitudinal and transverse wave

10.7 Displacement relation for a progressive wave

10.8 Principle of superposition of waves, reflections of waves

10.9 Standing waves in string and organ pipes, fundamental mode and harmonics

10.10 Formation of beats

10.11 Doppler effect

## 11. Electrostatic

11.1 Conservation of charges, Coulomb's law and dielectric constant, forces between multiple charges

11.2 Superposition principle of forces, continuous distribution of charges

11.3 Electric field due to point charge, electric dipole

11.4 Torque on a dipole in a uniform electric field, Electric field intensity, electric flux

11.5 Gauss's theorem and its application to find field due to (a) infinitely long straight conductor

(b) plane uniformly charge sheet (c) thin spherical shell

11.6 Electric potential, potential difference, electric potential due to point charge & dipole

- system of charges

- equipotential surfaces

- electrical potential energy due to electric dipole

11.7 Conductors and insulators, free charge and bound charge inside conductors, dielectrics & electric polarization

11.8 Capacitor and capacitance, combination of capacitors in series and parallel, capacitance of Parallel plate capacitor with and without dielectric medium, energy stored in capacitor

11.9 Van de Graff generator

## 12 CURRENT ELECTRICITY

12.1 Electric current, flow of electronic charges in a metallic conductor, Ohm's law, electrical resistance, V-I characteristics, electrical resistivity and conductivity, series, parallel combination of resistors

- Drift velocity, mobility & their relation with electric current

12.2 Electrical energy & power, electrical resistivity & conductivity

- Carbon resistors, colour code

- Temperature dependence of resistance

12.3 Internal resistance of cell, potential difference & emf of a cell, combination of cells in series & in parallel

12.4 Kirchhoff's laws for simple applications

12.5 Wheatstone's bridge, meter bridge

12.6 Principle of potentiometer and its applications to measure p.d., comparison of emf of two cells (individual), measurement of internal resistance of cell

## 13. Magnetic Effects of Current & Magnetism

13.1 Oersted's experiment, Biot-Savart law and its application to current carrying loop

13.2 Ampere's law & its applications to infinitely long straight wire, straight & toroidal solenoids, Force on a moving charge in a uniform magnetic & electric fields, Cyclotron

13.3 Force on a conductor in uniform magnetic field, force between two parallel current carrying conductors

13.4 Torque experienced by a current loop in a magnetic field, moving coil galvanometer, its current sensitivity, conversion into ammeter and voltmeter

13.5 Current loop as a magnetic dipole & its magnetic dipole moment, magnetic dipole moment of revolving electron, magnetic field intensity due to magnetic dipole along its axis and perpendicular to its axis

- Torque on the magnetic dipole in a uniform magnetic field

- Bar magnet as an equivalent solenoid

- Magnetic field lines, Earth's magnetic field and magnetic elements

13.6 Paramagnetic, diamagnetic and ferromagnetic substances

13.7 Electromagnetic & factors affecting their strengths, permanent magnets

## 14. Electromagnetic Induction & A.C.

14.1 Faraday's Laws, induced emf, current, Lenz's law, eddy currents

14.2 Self and mutual induction, transformer

14.3 Need for displacement current, AC currents, peak and rms value of ac voltage



14.4 Reactance and impedance, LC oscillations, LCR series circuit, resonance

14.5 Power in ac circuits, wattless current

14.6 A.C. generator

## 15. Electromagnetic Waves

15.1 Displacement current

15.2 Electromagnetic waves and their characteristics (qualitative ideas), its transverse nature

15.3 Electromagnetic spectrum

15.4 Uses of electromagnetic waves

## 16. Optics

16.1 Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and its applications, optical fibres

16.2 Refraction at spherical surfaces, lenses, thin lens formula, magnification, power of lens

16.3 Dispersion of light through a prism, scattering of light, Blue colour of sky, reddish appearance of sun and sun-rise and sunset

16.4 Microscope and telescope and their magnifying power

16.5 Huygens principles, wave front, reflection and refraction of plane wavefront, proof of laws of reflection and refraction

16.6 Young's double experiment and expression for fringe width

16.7 Diffraction, diffraction due to single slit

16.8 Resolving power of microscope and astronomical telescope

16.9 Polarization, Brewster's law

16.10 Dual nature of matter and radiation, photoelectric effect, Einstein's Photoelectric equations, particle nature of light, photoelectric cells and its applications

16.11 Wave nature of particle, De Broglie relation, Devisson-Germer experiment

## 17. Atoms, Molecules and Nuclei

17.1 Alpha particle scattering experiments, Rutherford's model of atoms, Bohr model, energy levels of hydrogen spectrum, comparison and size of nucleus

17.2 Atomic masses, isotopes, isobars, isotones, mass energy relation, mass defects

17.3 Radioactivity - alpha, beta & gamma particles, decay law Binding energy per nucleon & its variation with mass number, nuclear fission and fusion

## 18. Electronic Devices

18.1 Energy bands in solids, conductors, insulators & semiconductor diode, I-V characteristics in forward & reverse bias, diode as rectifier

18.2 Zener Diode, Zener Diode as voltage regulator

18.3 Transistor action, transistor as an amplifier (CE mode)

18.4 Oscillator, transistor as a switch

18.5 V-I characteristics of LED, Photodiode, solar cell

18.6 Logic gates

# CHEMISTRY

## 1. Some Basic Concepts of Chemistry

1.1 General Introduction

1.2 Laws of chemical combination

1.3 Dalton's atomic theory : concept of elements, atoms and molecules

1.4 Atomic and molecular masses. Mole concept and molar mass

1.5 Percentage composition, empirical and molecular formula

1.6 Chemical reactions, stoichiometry and calculations based on stoichiometry

## 2. Structure of Atom

2.1 Discovery of electron, proton and neutron; atomic number, isotopes and isobars

2.2 Thomson's model and its limitations, Rutherford's model and its limitations

2.3 Bohr's model and its limitations, concept of shells and sub shells

2.4 Dual nature of matter and light, De Broglie's relationship, Heisenberg uncertainty principle

2.5 Concept of orbitals, quantum numbers, shapes of s, p and d orbitals

2.6 Rules for filling electrons in orbitals Aufbau principle, Pauli exclusion principle and Hund's rule

2.7 Electronic configuration of atoms, stability of half filled and completely filled orbitals

## 3. Classification of Elements and Periodicity in Properties

3.1 Significance of classification, brief history of the development of periodic table

3.2 Modern periodic law and the present form of periodic table

3.3 Periodic trends in properties of elements atomic radii, ionic radii. Ionization enthalpy, electron gain enthalpy, electro negativity, valence

## 4. Chemical Bonding and Molecular Structure

4.1 Valence electrons, ionic bond, covalent bond, coordinate bond

4.2 Bond parameters

4.3 Lewis structure, polar character of covalent bond, covalent character of ionic bond

4.4 Valence bond theory, formation of H<sub>2</sub> and He<sub>2</sub> molecules, resonance

4.5 Geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules

4.6 Molecular orbital theory of homo nuclear diatomic molecules (qualitative idea only)

4.7 Hydrogen bond