



xamination

**Gujarat Secondary & Higher Secondary Education Board, Gandhinagar.** 

# **GUJARAT COMMON ENTRANCE TEST-2014**

# For Admission to Medical Courses in Gujarat State

Information Booklet and PIN No. (User ID-Password) for Online Registration

On Line Registration is open from 31/03/2014 to 15/04/2014 on website

www.gseb.org

Date of Examination : 08-05-2014

Address for Correspondence

## **Assistant Secretary,**

# **Gujarat Common Entrance Test Cell**

Gujarat Secondary & Higher Secondary Education Board Sector 10-B, Near Old Sachivalaya, Gandhinagar. Phone : 079-65722282 Website : www.gseb.org

# -: Notice :-

- 1. This information booklet is for appearing in the Gujarat Common Entrance Test (GUJCET) examination. For getting admission in Medical or Other Courses, separate application forms of the concerned Admission Committee or Institutions are to be filled.
- 2. GUJCET Examination is taken by the Gujarat Secondary and Higher Secondary Education Board but Merit List is prepared by the concerned Organization which undertakes the admission work as per the existing rules of the Government applicable time to time. The Board does not prepare the Merit List.
- 3. Admission in Higher courses like Medical Courses to the candidates who are going to appear/have passed HSCE Exam Science Stream from other Boards will be as per the rules of the concerned Institution.

IMPORTANT PHON	NE NOS. FOR INQUIRY
GUJCET CELL	079-65729149
Exam. Secretary	079-23253824
Asst. Secretary	079-23220538

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#### 1. INTRODUCTION :

1.1 It has been decided to conduct Common Entrance Test for getting admission in Degree-Engineering Pharmacy as well as Medical Course after Std.Xll Science Stream vide Resolution No. PVSH-102002-2464-S dated 28-07-2005 and dated 12-01-2006 of the Education Department of the State of Gujarat, Sachivalaya, Gandhinagar. Provision of Common Entrance Test for getting admission in Degree Engineering Pharmacy as well as Medical Course after Std. X11 Science Stream is made from academic year 2006-07.

Education Department, Government of Gujarat, wide GR No. PVSH-102002-2464-S dated 28-02-2014 has resolved that this year work related to GUJCET Examination will be executed by Education Department. Accordingly Health and Family Walfare Department, Government of Gujarat has been asked to hold GUJCET Examination for the students of HSC Science (10 + 2 Pattern) having B Group (Biology) and AB Group (Maths - Biology) in consultation with Gujarat Secondary and Higher Secondary Education Board, vids Education Department letter No. PVSH-102002-2464-S dated 28-02-2014.

Admission in MBBS, BDS, Physiotheraphy, Ayurved, Homeopathy, Nursing, Optometry etc. will be given, governed by admission comittee for Professional Medical Education Courses as per the admission rules published from time to time by considering marks of Qualifying Exam and Gujcet Exam in the manner desided by the admission comittee. However, it is clarified that, if National Eligibility cum Entrance Test is conducted, then the admissions to the MBBS, BDS courses, will be given on the basis of marks of a student in the National Eligibility cum Entrance Test and in this regard, the final decision of the Hon. Supreme Court of India shall be binding to all. The admission to the Physiotherapy, Ayurved, Homeopathy, Nursing, Optometry, etc. (other than MBBD and BDS) educational courses, the marks scored in the Board Examination as well asmarks scored in the GUJCET will be considered.

Merit list is the list prepared by the Admission Committee for Professional Medical Educational Courses, C/o. Dean, B. J. Medical College, Asarwa, Ahmedabad 380016, as per rules, published from time to time, based on Marks obtained in Theory subjects of Higher Secondary Certificate Examination (10 + 2 Pattern) and Mark obtained in Gujcet Examination.

A meeting of examination committee constituted by the Government was held on 17-2-2014 to finalise the guidelines for conducting GUJCET 2014 Examination.

- 1.2 'Common Entrance Test' shall be termed 'GUJCET'.
- 1.3 Abbreviation: These Rules shall be termed 'Gujarat Common Entrance Test (GUJCET) Rules'.
- 1.4 Definition:
  - 1. "State Government" means "State of Gujarat".
  - 2. "Department" means "Education Department, State of Gujarat".
  - 3. "Board" means "Gujarat Secondary and Higher Secondary Education Board, Gandhinagar".
  - 4. "GUJCET" means "Gujarat Common Entrance Test".
  - 5. "Rules" means "Rules framed by the Gujarat Secondary and Higher Secondary Education Board, Gandhinagar as prescribed in paragraph No. 6 of the Resolution No. PVSH-102002-2464-S dated 28.07.2005 of the Education Department of the State of Gujarat".
  - 6. "Eligibility" means "Eligibility of a candidate as prescribed in paragraph no. 1 of the Resolution No.PVSH-102002-2464-S-dated 28.07.2005 and dated 12-01-2006 of the Education Department of the State of Gujarat".

- 7. "Merit List" means "Merit List prepared by Admission Commitee for Professional Medical Educationae Courses C/o. Dean, B. J. Medical College Asarawa, Ahmedabad-380016, as per rules, published from time to time.
- 8. "Examination Committee" means "Examination Committee formed as prescribed in paragraph no. ll of the Resolution No. PVSH-102002-2464-S-dated 28-07-2005 and dated 12-01-2006 (para-5) and as re-constituted wide Resolution No. PVSH-102002-2464-S of the Education Department of the State of Gujarat".
- 9. "GS&HSEB" means "Gujarat Secondary and Higher Secondary Education Board, Gandhinagar".
- 10. "CBSE" means "Central Board of Secondary Education, New Delhi".
- 11. "CISCE" means "Council for the Indian School Certificate Examination, New Delhi".
- 12. "Recognised Higher Secondary Education Board" means "Boards of other States which are equivalent to Gujarat Secondary and Higher Secondary Education Board, Gandhinagar".
- 13. "Group-B" means "Higher Secondary Science Stream (10 + 2 Pattern) Chemistry, Physics and Biology subjects group".
- 14. "Group-AB" means "Higher Secondary Science Stream (10 + 2 Pattern) Mathematics, Chemistry, Physics and Biology subjects' group".
- 15. "Medium of Examination" means "Medium of Gujarati, Hindi, English languages as prescribed in paragraph No.5 of the Resolution No.PVSH-102002-2464-S-dated 28.07.2005 of the Education Department of the State of Gujarat".
- 16. "Chairman" means "Chairman of the Gujarat Secondary and Higher Secondary Education Board, Gandhinagar as prescribed in paragraph no.ll of the Resolution No.PVSH102002-2464-S-dated 28.07.2005 of the Education Department of the State of Gujarat".
- 17. "Member" means "Member as prescribed in paragraph no. 11 of the Resolution No.PVSH-102002-2464-S-dated 28.07:2005 of the Education Department of the State of Gujarat".
- 18. "Member Secretary" means "Examination Controller of the Gujarat Secondary and Higher Secondary Education Board, Gandhinagar as prescribed in paragraph no. 11 of the Resolution No. PVSH-102002-2464-S-dated 28.07.2005 of the Education Department of the State of Gujarat".
- 19. "Examination Centre" means "Examination Centre for appearing in GUJCET decided by the Examination Committee time to time as prescribed in paragraph no. 7 of the Resolution No.PVSH-102002-2464-S-dated 28.07.2005 and dated 12-01-2006 (para no. 4) of the Education Department of the State of Gujarat".
- 20. "OMR" means "Optical Mark Reader".
- 21. Curriculam means : Syllabus prepared for Higher Secondary Certificate Examination, Science Stream (10 + 2 Pattern) from the course of textbooks for semester III & IV which are prescribed at present by Gujarat Secondary Education Board wide Resolution No. PVSH-102002-2464-S-dated 28-07-2005 and dated 12-01-2006 (Para No. 4) of the Education Department of the State of Gujarat.
- 22. "Centre Director" means "A person appointed for administration of GUJCET examination centre or part of it on behalf of the Board".
- 23. "Block supervisor" means "A person appointed at the Examination Centre for inspection in the classroom during the course of GUJCET Examination".

- 24. "Examination" means "Gujarat Common Entrance Test".
- 25. "Paper-setter" means "Expert preparing question paper for the GUJCET".
- 26. "Scheduled Caste (SC)" means "the caste certified as Scheduled Caste by the Government".
- 27. "Scheduled Tribes (ST)" means "the caste certified as Scheduled Tribes by the Government".
- 28. "Other Backward Classes (OBC)" means "the castes certified as Other Backward Classes by the Government".
- 29. "Medical Course" means "Admission in MBBS/BDS/and Para medical and Ayush Courses like/B.Physiotherapy/BAMS/BHMS/B.Sc. Nursing, Optometry etc. Courses and all such medical courses under Health and Family Department for medical faculty vide Government Resolution, Education Department No. PVSH : 102002-2464-S-dated 12-01-2006 (para-7).

#### 2. EXAMINATION SCHEME :

#### 2.1 Administration of GUJCET :

The administration of the examination shall be done by the Gujarat Secondary and Higher Secondary Education Board, Gandhinagar.

#### 2.2 Curriculum of GUJCET :

The Curriculum of the GUJCET examination shall be as per **Appendix-I** prepared as prescribed in paragraph no. 9 of the Resolution No. PVSH-102002-2464-S dated 28.07.2005 of the Education Department of the State of Gujarat having curriculum of third and fourth semester of HSC Science Stream (10 + 2 Pattern).

#### 2.3 Examination Scheme for GUJCET :

For Guiarat Common.Entrance Test, there shall be multiple choice question papers of the following subjects and the number of questions, marks and time shall be as mentioned against them :\*

Sr. No.	Subject	Questions	Marks	Time
1.	Physics	40	40	
	Chemistry	40	40	180 minutes
	Biology	40	40	

\* There shall be combined question paper including Physics, Chemistry and Biology. The paper will be of 120 marks and of 180 minutes duration - combined OMR Sheet will be of 120 Answers.

#### 2.4 Regarding Merit List of Candidates :

(1) The candidates desirous of getting admission in Medical Course, those students who have opted Group-B or Group-AB in Science Stream/passed HSC Science Stream (10 + 2 Pattern), shall have to appear in GUJCET examination in the subjects applicable to them as per Group-B or Group-AB. The Merit List will be prepared on the basis of marks obtained in theory subjects of Higher Secondary Certificate Examination Science Stream (10 + 2 Pattern) in Biology, Chemistry and Physics and marks obtained in the GUJCET examination and under the Admission Rules framed by the Admission committee for

professional medical educational courses, C/o. Dean, B. J. Medical College, Ahmedabad - 380016. The merit list will be prepared by the Admission Committee according to the rules of admission prescribed from time to time.

- (2) Students who are about to appear for March-2014 examination and those who have cleared their HSC (10 + 2 Pattern) examination in March / July / October-2013 or earlier can appear.
- (3) 'The Admission Committee for Professional medical Educational Courses, C/o. Dean, B. J. Medical College, Ahmedabad-380 016 shall prepare the Merit List for getting admission in Medical Course on the basis of results of GUJCET and Board Examination, and according to the provision of admission rules prescribed from time to time. Contact Numbers of Admission Committee are as follow : 079-22680307, Mo. 87330 09858.

#### 2.5 Form of question papers for GUJCET :

The question paper shall be of multiple choice questions (MCQ), four options will be given for a question, out of which one option will be the correct one.

- 2.6 Eligibility of Schools / Institutions for sending the candidates for GUJCET :
  - (1) All the Higher Secondary Schools, registered by the Board and given permission to run Higher Secondary Science Stream (10 + 2 Pattern) and have been granted Index Number for Higher Secondary Certificate Examination, can send the candidates for the examination subject to the conditions prescribed by the Board from time to time.
  - (2) The recognized schools having Higher Secondary Science Stream (10 + 2 Pattern) situated in the State of Gujarat which are registered and affiliated with Central Board of Secondary Education, New Delhi (CBSE) and Council for the Indian School Certificate Examination, New Delhi (CISCE), can send the candidates for the examination.
  - (3) The Higher Secondary Schools/ Institutions having Science Stream as mentioned in Nos. (1) & (2) :
    - (1) shall get information, applications, etc. registered as prescribed by the Board on the dates and place decided by the Board.
    - (2) shall keep registers and records as decided by the Board time to time.
    - (3) shall give co-operation in the administration of examination and the facilities related with it.
    - (4) shall observe and implement the instructions issued by the Board time to time.

#### 2.7 Eligibility for Candidates for GUJCET :

- (i) Candidates who have passed Higher Secondary Certificate Examination Science Stream conducted by the Gujarat Secondary and Higher Secondary Education Board, Gandhinagar or the candidates who have filled in application form for appearing and eligible for appearing in the Examination of Higher Secondary Science Stream (10 + 2 Pattern) / candidates going to appear.
- (ii) Candidates who have passed Higher Secondary Science Stream (10 + 2 Pattern) Examination conducted by the Central Board of Secondary Education, New Delhi through the recognized school situated in the State of Gujarat or the candidates who have filled in application form for appearing in the examination of Higher Secondary Science Stream (10 + 2 Pattern) through recognized school/candidates going to appear in examination of Higher Secondary Science Stream (10 + 2 Pattern) in the very year in which the candidates have filled in application form for Common Entrance Test.
- (iii) Candidates who have passed Higher Secondary Science Stream (10 + 2 Pattern) examination conducted by the Council for the Indian School Certificate

Examination, New Delhi through the recognized school situated in the State of Gujarat or the candidates who have filled in application form for appearing in the examination of HSC Science Stream through recognized school/candidates going to appear in examination of HSC Science Stream in the very year in which the candidates have filled in application form for Common Entrance Test.

- (iv) Candidates who are the heirs of the officers/employees who belong to the State of Gujarat but performing their duties in other States as the officers/ employees of Central/State Government, Military Forces or the Board/ Corporation governed by the Central/State Government, who have passed HSC Science Stream examination conducted by the Higher Secondary Education Board situated in the State in which they are performing duties or the candidates who have filled in application form for appearing in the examination of HSC Science Stream or the candidates going to appear in examination of HSC Science Stream in the very year in which the candidates have filled in application form for Common Entrance Test.
- (v) Other candidates who are eligible to get admission in the said Courses as per the admission Rules framed time to time by Admission Committee for Professional medical Educational Courses, C/o. Dean, B. J. Medical College, Ahmedabad-380016 for admission in Medical course, who have passed HSC Science Stream examination with B Group or AB Group or the candidates who have filled in application form for appearing in the examination of HSC Science Stream.

#### 2.8 For getting Pin No. (User ID . Password) and Information Booklet for GUJCET:

- (i) The application must be filled on-line Registration through the website prescribed by the Board.
- (ii) Candidate can fill up only one application form
- (iii) Every year new Application Form shall be filled for the GUJCET.
- (iv) Pin No. (User ID Password) and Information Booklet can be obtained from the distribution centres mentioned at cover page 3 and 4 during the fixed time & date on payment of prescribed fees:
  - 1. The candidates who have passed H.S.C. Science Stream Exam on or before March/July/October-2013 or appearing in March-2014 from the school registered with the Gujarat Board, after submitting an examination fee of Rs. 250/- for each candidate by way of a Joint Demand Draft in the name of "Secretary, Gujarat Common Entrance Test Cell, Gandhinagar", payable at Ahmedabad through the Higher Secondary Science Stream Schools, can get the Information Booklet and Pin No. (User ID - Password) on 31/03/2014 from the distribution centres no. 1 to 42 mentioned at Cover Page 3 & 4.
  - 2. The candidates having eligibility as mentioned in Rules (i) to (v) of Rule No. 2.7 can get the Information Booklet and Pin No. (User ID Password) from the distribution centres no. 43 to 46 mentioned on Cover Page 4 after submitting an examination fee of Rs. 250/- for each candidate by way of a Demand Draft in the name of "Secretary, Gujarat Common Entrance Test Cell, Gandhinagar", payable at Ahmedabad during the period from 31/03/2014 to 15/04/2014.

#### 2.9 Regarding filling in details in the application form for GUJCET :

- (1) The on-line registration form shall be filled as per the instruction of information booklet.
- (2) In the matter of acceptance or rejection of the application form, the decision of the Chairman will be final.

- 2.10 Regarding verification of documents by the Head of the School / Institution at the time of sending application form :
  - (A) Eligibility for the candidates who have passed HSC Scirence Stream Examination before March-2014 :
    - (1) Candidates who have passed Higher Secondary Certificate Examination taken by the Gujarat Secondary and Higher Secondary Education Board, Gandhinagar.
    - (2) Candidates who have passed HSC examination taken by Central Board of Secondary Education, New Delhi (CBSE) through a recognized school situated in the State of Gujarat.
    - (3) Candidates who have passed HSC examination taken by Council for the Indian School Certificate Examination, New Delhi (CISCE) through a recognized school situated in the State of Gujarat.
    - (4) Candidates who are the heirs of the officers/employees who belong to the State of Gujarat but performing their duties in other States as the officers/employees of Central/State Government, Military Forces or the Board/Corporation governed by the Central/State Government, who have passed HSC examination through a recognized school in the State where thay are performing their duties.
    - (5) The candidates who have passed HSC Science Stream Exam (10 + 2 Pattern) are eligible to get admission in the concerned courses as per the admission Rules from time to time by Admission Committee for Professional Medical Educational Courses, C/o. Dean, B. J. Medical College, Ahmedabad-380016 for admission in Medical course.
- 2.11 Candidate registered for the Higher Secondary Certificate Examination of Science Stream appearing in March-2014 examination :
  - (1) Candidates who have appeared in Semester I, II & III and who have been registered or who have appeared in IVth Semester Examination of Higher Secondary Certificate Examination (Science Stream) for March-2014.
  - (2) Candidates registered or appeared in Science Stream under the recognized schools situated in the State of Gujarat for the examination to be held by the Central Board of Secondary Education, New Delhi (CBSE), in March-2014.
  - (3) Candidates registered or appeared in Science Stream under the recognized schools situated in the State of Gujarat for the examination to be held by the Council for the Indian School Certificate Examination, New Delhi (CISCE) in March-2014.
  - (4) Candidates who are the heirs of the officers/employees who belong to the State of Gujarat but performing their duties in other States as the officers/ employees of Central/State Government, Military Forces or the Board/ Corporation governed by the Central/State Government, who are registered or appeared in Science Stream for the examination of HSC (10 + 2 Pattern) to be held in March-2014 in the State where they are performing their duty.
  - (5) Candidates who are eligible to get admission in the concerned courses and who are registered or have appeared in Science Stream for the examination of HSC March-2014 as per the admission Rules framed from time to time by Admission Committee for Professional medical Educational Courses, C/ o. Dean, B.J. Medical College, Ahmedabad-380016 for admission in Medical course.

The Principal of the School shall verify that the candidate has filled in application form for HSC Examination March-2014.

Note: No documents to be attached with the application form.

#### 2.12 Regarding Examination Fee :

To get Information booklet and user ID - Password for online Registration of GUJCET, Demand Draft of Rs. 250/- of Nationalised Bank towards examination fee in the name of "Secretary, Gujarat Common Entrance Test Cell, Gandhinagar" payable at Ahmedabad shall be produced. The same shall not be cancelled or the examination fee shall not be refunded.

#### 2.13 Medium of Examination of GUJCET :

The question papers of the examination shall be in Gujarati, Hindi and English languages. It is necessary that a candidate should mention his medium in the application.

#### 2.14 GUJCET Examination Centres :

<b>EXAMINATION</b>	CENTRES	FOR	<b>GUICE</b>	Г
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Sr.	Name of District	Name of Examination	Centre
No.		Centre	No
1.	Ahmedabad (City)	Ahmedabad	201
2.	Ahmedabad (Rural)	Ahmedabad (Rural)	202
3.	Amreli	Amreli	203
4.	Kutch	Bhuj	204
5.	Kheda	Nadiad	205
6.	Jamnagar	Jamnagar	206
7.	Junagadh & Diu	Junagadh	207
8.	Dang	Aahwa	208
9.	Panchmahal	Godhra	209
10.	Banaskantha	Palanpur	210
11.	Bharuch	Bharuch	211
12.	Bhavnagar	Bhavnagar	212
13.	Mahesana	Mahesana	213
14.	Rajkot	Rajkot	214
15.	Vadodara	Vadodara	215
16.	Valsad & Daman, Dadranagar haveli	Valsad	216
17.	Sabarkantha	Himmatnagar	217
18.	Surat	Surat	218
19.	Surendranagar	Surendranagar	219
20.	Anand	Anand	221
21.	Patan	Patan	222
22.	Navsari	Navsari	223
23.	Dahod	Dahod	224
24.	Porbander	Porbander	225
25.	Narmada	Rajpipla	226
26.	Gandhinagar	Gandhinagar	227
27.	Тарі	Vyara	228
28.	Mahisagar*	Lunavada	229
29.	Arvalli*	Modasa	230
30.	Chhota Udepur*	Chhota Udepur	231
31.	Botad*	Botad	232
32.	Morbi*	Morbi	233
33.	Gir Somnath*	Veraval	234
34.	Devbhumi Dwarka*	Jamkhambhaliya	235

\* If less than 100 candidates are registred in newly formed districts, seating arrangement shall be provided at the head quarter of the original District.

#### 2.15 "Admission Card" for entry in the Examination :

- Candidates shall be able to download their online admission card (Hall-ticket)
  7 days prior to the examination or it may be sent as decided by Board.
- 2.16 Procedure after getting the Admission Card :
  - (1) (i) Verify the details of admission card. If there is any error, contact the GUJCET Cell immediately for the same and get clarification! correction.
    - (ii) Under any circumstances entry will not be given to a candidate at the examination centre or examination hall without admission card.
    - (iii) Candidate by himself cannot make any change in respect of any detail/ information in the Admission Card.
    - (iv) Candidates are advised to keep their Admission Card in good condition till the admission procedure are not completed.
  - (2) Candidate shall sign at two places in the Admission Card as well as also take signature of the Block Supervisor.
    - (i) As an evidence of getting question booklet and answer sheet.
    - (ii) As an evidence of submitting the OMR Answer Sheet to the Block Supervisor.
  - (3) Details given in Admission Card such as name of the candidate, photograph, subjects for GUJCET, medium, subjects choosen, signature in application form and examination centre and details in respect of examination hall have been given. If there is any error with regard to the same, then as per the application form prescribed in **Appendix-5** shall submit the same in person at the following address :

Assistant Secretary, "Gujarat Common Entrance Test Cell", C/o. Gujarat Secondary and Higher Secondary Education Board, Near Old Sachivalaya, Sector 10-B, Gandhinagar-382010

#### 2.17 Time Limit of Examination Result :

The candidate, who has passed HSC Science Stream and found eligible for the GUJCET, shall be considered for the Merit List of the respective academic year and the same shall not be taken into consideration for other academic year. The GUJCET examination score will be accepted for the Merit List of the respective academic year. Thus, the candidate shall have to appear in GUJCET-2014 examination again for new academic year 2014-15 for getting admission in Professional Course of Medical.

#### 3. Instructions to be followed during examination :

#### 3.1 Time Schedule for examination :

3.2

Sr. No.	Subject	Date	Time
1.	Physics, Chemistry and Biology	08-05-2014	11-00 to 2-00

**Note :** The candidates shall take entry in the examination hall as per the time schedule mentioned in **Appendix-7** and shall proceed as per the necessary instructions.

Any Change in examination date will be notified through print/electronic media. Arrangement at Examination Centre :

- (i) In each examination hall, maximum 20 candidates will be allowed to sit.
- (ii) It is mandatory to keep five feet distance between two candidates and the sitting arrangement will be done accordingly.

- (iii) No candidate will be allowed to enter the examination centre without Admission Card.
- (iv) The respective Centre Administrator shall arrange for the Seat Numbers at the respective examination Centre one day prior to the examination.
- (v) The candidate will not be allowed to enter the examination centre without admission card and except the candidate, no other person will be allowed to enter.
- 3.3 Entry in the examination hall and necessary registration :
  - (i) The candidates shall take entry in the examination hall as per the time schedule shown in **Appendix-7**.
  - (ii) After commnencement of examination, no candidate will be allowed to enter the examination hall under any circumstances.
  - (iii) If any candidate enters at the time when question paper starts, he will be allowed to enter. However, he/she will not be given extra time for filling in the details on Question Booklet and Answer Sheet, which may please be noted.
  - (iv) If the candidate reaches later then the time limit prescribed, he/she shall miss some important general instructions.
  - (v) The candidate must sit on the Seat Number mentioned in the Admission Card as per the sitting arrangement of the respective examination hall.
  - (vi) For getting admission in the' examination hall, the original Admission Card issued by the Board shall have to be shown to the Supervisor of the respective examination hall. Without Admission Card, no entry will be given in the examination hall.
  - (vii) Except the respective candidate, no other person will be allowed to enter in the examination hall.
  - (viii) Any type of material such as textbook, any reference literature, slide rules, printed or handwritten log table, Xeroxed writing, chits, cellular phone, pager or any type of instrument or literature will not be allowed in the examination hall. Only Admission Card and simple calculator will be allowed in the examination hall.
  - (ix) Before commencement of examination in the examination hall, one has to enter in the information regarding presence, on question paper and answer sheet legibly as per the instructions. Take care to avoid any difficultywhich may arise future on account of wrong/incomplete/unclear information.
  - (x) Candidate will have to appear in the examination as per the seat number and block number mentioned in the admission card. The candidature of the candidate shall stand cancelled if the candidate will appear in the examination through block/ seat number other than the allotted block number and seat number.
  - (xi) The Candidate will not be allowed to enter the examination hall/examination place after of the exam starts.
  - (xii) The candidate will not be allowed to leave the examination hall unless and until the examination is over.
  - (xiii) The candidate will not be allowed to enter the examination hall with tea, coffee, colddrinks or light-refreshment during the examination. Smoking is prohibited in the examination hall.

- (xiv) The candidate will have to bring good quality of black ball point pen for filling the information and answers in the answer-sheet.
- (xv) The number of pages of Question-Booklet is given on the first page of Question Booklet. The candidate shall verify the same before filling the information in the Question-Booklet or Answer-Sheet. Attention of Block-Supervisor shall be drawn urgently if any of the page of question-booklet is blank, torn out, missing. The Block-Supervisor will replace the same by giving other question-booklet and answer-sheet.

#### 3.4 Punctuality in Examination hall :

- (i) The candidate shall enter the examination hall as per the prescribed date and time during the examination. In any circumstances, the candidate will not be allowed to enter the examination hall after the time prescribed is over.
- (ii) The examination shall start and shall be over as per the time and date mentioned in the Admission Card for the examination.
- (iii) After starting the examination, every half an hour signal shall be given by way of warning bell during the examination, Five minutes before completion of examination the final warning bell shall be rung as indication. The completion of time of examination shall be declared by a long bell. On declaration of completion of time of examination, the candidates shall stop writing answer in the answer-sheet. Immediately thereafter, after applying 'Khakhi' (brown coloured) sticker as per Appendix-10-B, the answer- sheet shall be handed over to the Block Supervisor and for confirmation of the same, the candidateas well as the Block Supervisor shall sign the Admission Card as well as Form No. 01 of Appendix-8.
- (iv) Under any circumstances re-examination shall not be taken.

#### 3.5 Regarding attendance in examination hall :

Candidate shall take signature of Block Supervisor of the examination hall in the Admission Card given to them with a view to show that he is present in the examination hall and he/she shall sign Form No. 01 of **Appendix-8** for attendance for confirmation of his presence. In the answer-sheet the candidate shall sign at the prescribed placeas well as shall take signature of block supervisor.

Candidate shall sign twice in the Attendance Register (Form-01).

- 1. As confirmation of receipt of Question Booklet and Answer-sheet bearing identical code.
- 2. As confirmation of submission of OMR answer-sheet to the Block Supervisor.

#### 3.6A Distribution of Question Booklet and OMR Answer-sheet at the examination hall:

- (i) Whatever number of candidates are allotted as per the sitting arrangement in the examination hall, looking to the same, that much Question Booklets and Answer-sheets shall be available.
- (ii) Alongwith the Question Booklet, OMR Answer-sheet shall be given. Out of A,B,C,D types whichever type is written on the question booklet, the same type shall be printed on the OMR Answer-sheet. Moreover, candidate shall write/mention the type of question booklet in his own handwriting in the Answer-sheet, Form-01 and in the prescribed column of Admission Card.

- (iii) In the O.M.R. Answer-sheet there will be a pre-printed type of Question Booklet. It is necessary that the type of Question Booklet and the type of Answer-sheet given to the candidate are same.
- (iv) If the type of Question Booklet and the type printed on the answer-sheet given to the candidate are different, the attention of the Block Supervisor must be drawn and the Block Supervisor shall provide same type of Question Booklet and Answer-sheet.
- (v) Only after verifying the type of Question Booklet and Answer-sheet, the details of the Answer-sheet and Question Booklet shall be filled in.
- (vi) The question booklet shall be distributed to each candidate in the examination hall in the order in which received in a sealed packet. In this regard, instructions shall be given to the Block Supervisor separately.
- (vii) If any candidate is absent then the Question Booklet and Answer-sheet of that type shall be put on his seat and after starting of the examination, the Question paper shall be handed over to the building conductor in a sealed manner only. OMR Shall be Put with other Present Candidate's OMR after darkening the Absent circle.

#### 3.6B Regarding filling in the details after studying the Question Booklet :

- (i) To check whether the type of Question Booklet printed is the same as on Answer- sheet or not.
- (ii) To fill in the details on the Question Booklet.
- (iii) To check the number of pages as mentioned on the Question Booklet, If any page is incomplete/illegible/missing/torn, then attention of the Block Supervisor shall be drawn.
- (iv) The seal (lock sticker) on the question booklet shall be opened on' being instructed by the Block Supervisor.
- (v) For rough-work.there will be a definite place at the bottom of each page of the Question Booklet. Moreover, space shall be provided on the last page of the Question Booklet.

#### 3.7 Details to be mentioned on the answer-.sheet by the Candidate : Appendix-9

- (i) In the Answer-sheet in Section II on Side-A, the procedure to stick the bar-code sticker is to be followed. For further information, the form at **Appendix-10-A** may be taken into consideration.
- (ii) In the Answer-sheet of Section II , on Side A, seat number of the candidate shall be written in figures and in words as per the Admission Card.
- (iii) In the Answer-sheet Section on side A, the candidate shall write centre number as per the admission card.
- (iv) In the Answer-sheet Section II on Side A, the candidate shall sign the Attendance sheet, Admission Card and Answer-sheet in the manner in which he has signed in the Online Registration Form.
- (v) In the Answer-sheet Section II on Side A, the candidate shall check the date of Examination/write the date of examination.
- (vi) In the Answer-sheet Section II on Side A, the candidates shall stick the barcode sticker given by their Block Supervisor at the prescribed place after verifying whether the same is of his seat number and subject or not.
- (vii) In the Answer-sheet Section II on Side A, the candidate shall write the type of Question Booklet given to him and shall verify as to whether the type of Question Booklet printed in the Answer-sheet is the same as Question Booklet or not.

- (viii) In the Answer-sheet Section II on Side A, the candidate shall sign the Form-Ol on the confirmation that he is present before the Block Supervisor as well as he has got the same type of Answer-sheet as of the Question Booklet, as well as details of barcode sticker, details of Admission Card and details of Answer-sheet and shall also take signature of Block Supervisor. After taking signature of the Block Supervisor in the Admission Card.
- (ix) In the answer-sheet after filling in the details of Section II on Side A, the candidate shall stick the 'Khakhi Sticker' at the prescribed place as mentioned in model form at Appendix-10-B in the manner in which the details written by the candidate on the answer-sheet and the details of bar-code sticker get covered.

#### 3.8A Method of indication of answers in the answer-sheet : Appendix-9

- (i) The circle in the answer-sheet must completely be darkened with black ink ball point pen (means to cover the circle with black colour e.g. ●). Except black ink ball point pen, no other pen or pencil must be used and use of any type of remover is not permissible. If this instruction is violated by the candidate, then his candidature will be cancelled.
- (ii) It is necessary and compulsory to darken the circle with black ink ballpen completely.
- (iii) In answer to any question, if a circle is darkened, then for any other answer to the very question, the candidate shall not darken any other circle.
- (iv) If the circle is darkened less or incompletely, the same shall not be readable by the optical scanner. So in such cases, marks will be given treating the answer as wrong and, therefore, the candidate must darken the circle completely.
- (v) Candidate shall mark at the appropriate place of answer against the respective question and shall mark the respective circle for answer.
- (vi) As per the questions to be asked in the respective subject, in the O.M.R. answersheet, the same number of answers will be given as per the model answer-sheet.
- (vii) The procedure for giving answer in the answer-sheet is as under. The other questions shall be answered by taking into consideration the same.

e.g., (12) In which of the following cities "The Gate way of India" is located ?

- (A) Mumbai (B) Delhi
- (C) Madras (D) Calcutta

The correct answer of the aforesaid question is (A) Mumbai. The candidate shall darken the circle (A) against question no.12 in the answer-sheet by using black ink ball point pen as shown below ;

12  $A \bullet B \circ C \circ D \circ$ 

- (viii) If the candidate does not wish to answer any question, the candidate shall have to leave such question by leaving the circles to the answer blank and thereafter may answer other questions.
- (ix) Candidates shall take care to see that the'answer-sheet is neither folded nor there is any crease. The answer-sheet shall be handed over to the block supervisor in the same good condition as is received from the block supervisor. There will be difficulty in assessing the answer-sheet with fold or crease. The responsibility in this regard will be of the candidate.

#### 3.8B No change to be made after answering once:

(i) Candidate shall darken the circle of answer against the question only when the candidate is sure about the right answer to the question. If there is slightest doubt in the mind of candidate with regard to the answer, it is advisable not to darken any circle of the answer (means leave circle blank). If any change is made after having darkened the circle once, the same will not be accepted and such answer will be treated for negative marking as per Rules.

#### **Incorrect Method**

#### **Correct Method**

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#### 3.9 Method of Assessment :

The answer-sheet will be examined on the principle of OMR. The marks will be given by computer on reading the reply (answer).

- (i) Each multiple choice question carries 1 (one) mark. For each correct answer 1 (one) mark will be given.
- (ii) For each wrong answer to the multiple choice question, 0.25 (1/4) less marks will deducted (negative marking).
- (iii) The candidate/student will be given one less mark (negative marking) if two or more options (answers) out of four are opted for one multiple choice question.
- (iv) If the candidate is not sure about the answer, it is advisable to avoid giving answer to such question so that there may not be any negative marking.
- (v) In answer-sheet at two places the types of question booklet (A, B, C, D) will be printed and the candidate has signed the answer-sheet, Form-01 and Admission Card after verifying the types (A, B, C, D) printed on the question booklet. Therefore, for assessment, the type printed on the answer-sheet will be considered as final.

#### 3.10 Regarding doing rough work in certain cases in examination ball :

If there is need to do rough work in the examination hall, the same shall be done at the prescribed place in the question booklet. Except this, no rough work shall be done at any other place.

#### 3.11 Regarding cancellation of entry for examination :

- (1) If in any case it is found that the candidate has been given admission in GUJCET examination by mistake, immorally, by fraud or by improper manner or it is found that the admission given to the candidate in the highest cadre is found irregular, the powers to cancel the admission to examination will vest with the Examination Committee, even if the candidate is enrolled in the list for examination and/or candidate has appeared in examination of one or more subjects.
- (2) The candidature of the student will be cancelled for GUJCET if the principal of the school cancels the application of the said candidate for HSC Science Stream Examination and informs the reasons for cancellation to the Chairman,

GSHSEB before one month of the commencement of GUJCET examination. The powers to cancel the admission to examination will vest with the Examination Committee, even if the candidate is enrolled in the list for examination and/or candidate has appeared in examination of one or more subjects.

#### 3.12 Punishment for misconduct/mal-practice by the candidate related to examination:

- (i) The candidate shall not carry any other material except the Admission Card in the examination hall and shall not talk with any other candidate around him. Thus, if any candidate is found carrying any material of any subject or talking with any candidates surrounding him, or found making signs or writing with regard to identification in the question booklet or answer-sheet or commits breach of any of the Rules of the method of GUJCET examination, the case of misconduct/mac-practice will be registered and the Examination Committee shall take appropriate decision after hearing. The decision of the Examination Committee will be final.
- (ii) If it is found that any other person has appeared in the name of the candidate who has sent the application form for admission to examination, with or without the consent of the candidate or has tried to appear, the result of such candidate shall be cancelled. Moreover, in every such case, the powers vest with the Examination Committee to debar such candidate from appearing in examination for such period as decided by the Examination Committee.
- (iii) If any candidate is found committing breach of any of the Rules framed for proper conduct of examination or found guilty of misconduct during examination or found copying, the Director of Examination Centre will adopt procedure accrding to rules. Thereafter, the Director of Centre shall submit his report in this regard to the Examination Committee. On the basis of this report or on any other basis, if the Examination Committee is satisfied that the candidate is guilty for any examination related misconduct, the powers shall vest with the Examination Committee to cancel the result of candidate of the examinationin which he appeared and also to debar him from appearing in examination permanently or for such period as deemed proper.
- (iv) If it is found that any mischief is done with the admission cardor mark-sheet issued by the Board or any change is made in the contents/note unauthorisedly or any mischief is done, the powers will vest with the Examination Committee to forfeit such admission card or mark-sheet, And if the Examination Committee is satisfied that such an unauthorized change or mischief is done by the candidate himself, the powers shall vest with the Examination for such period as deemed proper in each case.
- (v) If it is found that the candidate has committed breach of any of the Rules of information booklet or Ru1es for conduction of examination under GUJCET examination by obtaining permission for appearing in examination in an unreasonable manner or by malpractice, the powers will vest with the Examination Committee to cancel the certificate for registration and admission in examination and to cancel the result if the candidate has appeared in examination. Moreover, the powers will vest with the Examination Committee to debar such candidates for such period for appearing in examination as demed proper. All the fees paid by such candidate will be forfeited.

- (vi) After completion of examination, the candidate shall sign Form-01 ensuring the return of answer-sheet to the block supervisor on duty before leaving the examination hall. If any candidate will leave the examination hall with answer-sheet without submitting the same, the case of malpractice will be registered against such candidate.
- (vii) If the candidate will tear the pages of question booklet, tear answer-sheet, harm the answer-sheet or harm the bar-code sticker, the case of malpractice shall be registered against such candidate.
- (viii) As per **Appendix-11**, if candidate will commit any misconduct/mal-practice, punitive action will be initiated accordings to the rules-regulations of Board.

#### 3.13 Procedure for returning the answer-sheet after completion of examination :

All the candidates shall hand over the answer-sheet to Block Supervisor on completion of examination and shall sign in Form-01 of **Appendix-8** as an evidence, ensuring return of Answer-sheet to the Block Supervisor and shall take signature of the Block Supervisor in the Admission Card as an evidence, ensuring return of Answer-sheet. The candidate shall be allowed to carry the question booklet out of the examination hall on completion of the examination.

#### 3.14 Re-Examination :

This examination will be conducted as per the prescribed time schedule and time shown in admissioncard. The liability shallbe of the candidate who will not appear in the examination, as per the prescribed time schedule. **There is no provision of re-examination.** There is no provision of re-examination for such candidate who will remain absent in examination for any reason.

#### 4. Regarding Result :

#### 4.1 Assessment :

The Answer-sheet shall be of OMR type. The marks will be calculated as per the rules by computerization method after verification of the answer-sheet by the scanner. The correct answers (answer key) to the questions of each subject will be made available on the website of the Board before result.

#### 4.2 Declaration of result :

After completion of assessment, the result will be declared.

#### 4.3 Regarding marksheet :

After completion of assessment, the result of examination will be given in the marksheet. The mark-sheet of result of the candidates will be sent to the School, from which candidates have sent their application forms. Result of other Board candidates will be sent by post.

#### 4.4 Duplicate mark-sheet :

In case of loss of mark-sheet, a duplicate mark-sheet may be obtained from GUJCET Cell, Gandhinagar by filling in the application form as prescribed in **Appendix-12.** On payment of Rs. 200/- [during the period between declaration of result and preparation of merit list] by draft of Nationalised Bank payable at

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Ahmedabad in the name of "Secretary, Gujarat Common Entrance Test Cell, Gandhinagar." After completion of admission process duplicate mark-sheet will not given.

#### 4.5 Xerox copy of OMR Answer-sheet :

Rechecking will not be done. If any candidate wishes to have Xerox copy of OMR answer-sheet, the candidate shall have to pay fees of Rs. 200/- along with application made as per **Appendix-13** and Xerox copy of the Answer-sheet will be sent to such candidate by post. Fees are to be paid in form of Bank DD of Nationalised Bank payable at Ahmedabad in the name of "Secretary, Gujarat Common Entrance Test Cell, Gandhinagar."

#### 4.6 Merit List :

The Merit List will be prepared by the Committee on the basis of 60% marks out of the total marks of theory obtained in Higher Secondary Certificate Examination of HSC Science Stream in subjects of Chemistry, Physics and Biology and 40% marks of the total marks obtained in the GUJCET examination and on the basis of the Admission Rules framed from time to time by the 'Centralized Medical Admission Committee', C/o. Dean, B. J. Medical College, Ahmedabad-380016 for admission in Medical course. For rules regarding Merit List and admission above committee should be contactectd. **Board will only conduct GUJCET Examination and will not entertain any communication regarding this.** 

#### 4.7 Preservation of confidential records and time limit :

The record of examination of the respective year shall be maintained by the Board for a period of three months from the date of declaration of result. Thereafter, the same will be disposed of as per the rules.

## 4.8 Interpretation of GUJCET rules/provisions :

If any difficulty arises in interpreting the linguistic or technical meaning of GUJCET rules/ provisions, the authority vests with the Chairman to interpret the same.

#### 4.9 Jurisdiction for Court cases :

For the Court cases filed in reference to the GUJCET examination either by the Board or against the Board, the jurisdiction will be Gandhinagar.

# Appendix - 1 CHEMISTRY CURRICULUM

## Unit-1

## SOLID STATE

- 1. Introduction
- 1.1 Classificaton of compounds on the basis of bonding forces. (Molecular, Ionic, Covalent Metalic)
- 1.2 Crystalline and amorphous solids.
- 1.3 Two dimensional and three dimensional unit cell lattices.
- 1.4 Calculation of volume used by an atom in unit cell.
- 1.5 Closed pack structure and their types. (One dimensional, Two dimensional, Three dimensional)
- 1.6 Tetrahedral and octabehral voids.
- 1.7 Calculation of number of atoms in unit cell.
- 1.8 Point defects and their types. Band theory in metals
- 1.9 Electrical and Magnetic effects of defect. Band theory in metals.

## Unit-2

## **SOLUTIONS**

- 2.1 Introduction
- 2.2 Types of Solutions
- 2.3 Units of Concentrations
- 2.4 Solubility of gases (solubility of gasious solute in liquid solvent)
- 2.5 Solubility of solid solute in solid solvent
- 2.6 Colligative properties of solutions.
- 2.7 Vapour pressure of solution.
- 2.8 Raoulf's law (for non volatile solute)
- 2.9 Raoulf's law (for volatile solute in volatile solvent)
- 2.10 Elevation in boiling point
- 2.11 Depression in freezing point
- 2.12 Osmosis and its uses
- 2.13 Laws of Osmotic pressure
- 2.14 Iso Osmotic solution (Isotonic)
- 2.15 Methods of determining Molecular mass.
- 2.16 Abnormal Molecular mass and van't Hoff's factor

## Unit-3

## **ELECTROCHEMISTRY**

- 3.1 Introduction
- 3.2 Electrochemical Cell
- 3.3 Types of Electrodes
- 3.4 Cell Potential

- 3.5 E. M. F. Series
- 3.6 Nernst Equation
- 3.7 Some application of cell potential
- 3.8 Electrolysis
- 3.9 Products obtained by Electrolysis
- 3.10 Electrolysis of Nacl, Dilute Solution of Nacl, and concentrated solution at Nacl
- 3.11 Electrolysis of aq. Na2SO<sub>4</sub>
- 3.12 Electrolysis of aq. CuSO<sub>4</sub>
- 3.13 Gibb's free energy and cell potential
- 3.14 Difference between Electrochemical and Electrolytic Cell
- 3.15 Electrolysis for Industrial Product
- 3.16 Electrical Conduction
- 3.17 Resistivity (Specific Resistance)
- 3.18 Ionic Mobility
- 3.19 Kohlrausch's law of independent migration of ions.
- 3.20 Batteries (Primary Cell and Secondary Cells : Dry Cell, Mercury Cell, lead storage cell, Ni-Cd Storage Cell, Fuel Cell, Hydrogen Fuel Cell)
- 3.21 Corrosion

## GENERAL PRINCIPLES AND PROCESSES OF ISOLATION OF ELEMENTS

- 4.1 Introduction
- 4.2 Occurence of Metals
- 4.3 Concentration of Ores
- 4.4 Extraction of Crude metal from the Concentrated Ore
- 4.5 Thermodynamic Principles of Metallurgy
- 4.6 Electrochemical Principles of Metallurgy
- 4.7 Oxidation Reduction
- 4.8 Refining of Impure Metals
- 4.9 Extraction of Al, Cu, Fe, Zn Metals

## Unit-5

## **P-BLOCK ELEMENTS-II**

- 5.1 Introduction
- 5.2 Elements of Group-15

(Occurence, Electronic Configuration, Oxidation State, Periodicity in Physical and Chemical Property)

- 5.3 Nitrogen(preparation, properties, uses of N2 anamolous behaviour, compounds of nitrogen element
  - i) NH<sub>3</sub> [preparation, physical properties, chemical properties and uses]
  - ii) HNO<sub>3</sub> [preparation, physical property, chemical property, uses]
  - iii) Oxides of nitrogen [preparation, structures and properties]
- 5.4 Phosphorous -Allotropes, Compounds of Phosphorous
  - i) PH<sub>3</sub> [preparation, physical and chemical properties and uses]

- ii) PCl<sub>3</sub> [preparation, chemical and physical properties]
- iii) PCl<sub>5</sub> [preparation, physical and chemical properties]
- iv) oxo acids of phosphorous
- 5.5 Elements of Group-16 (Electronic configuration, Occurence, Oxidation State, periodicity in physical and chemical properties)
- 5.6 Oxygen
  - i) Preparation, properties and uses of O<sub>2</sub>
  - ii) Anamalous behaviour
  - iii) Compounds of Oxygen Simple Oxides and Ozone [Preparation and Properties and uses]
- 5.7 Sulphur Allotropes of Sulphur [α-Sulphur, β-Sulphur, Compounds of Sulphur
  - i) Sulphur dioxide [preparation, chemical and physical properties and uses]
  - ii) Sulphuric acid [Industrial production, physical and chemical properties, uses]
  - iii) Oxoacids of Sulphur [Structures and Names]
- 5.8 Elements of Group-17

Electronics Configuration, Occurence, Oxidation State, Periodicity in Physical and Chemical Properties, Anamalous behaviour of Fluorine

- 5.9 Chlorine [Preparation, properties and uses of Cl2], preparation of HCl; its properties and uses.
- 5.10 Interhalogen Compounds : preparation, properties and uses.
- 5.11 Oxoacids Compound of halogen element.
- 5.12 Elements of Group -18.
  - Electronic configuration, occurence and oxidation state, periodicity in physical and chemical properties.
  - Xenon Fluorine Compounds
  - Xenon Oxygen Compounds

## Unit-6

## HALO ALKANES AND HALO ARENES

- 6.1 Introduction
- 6.2 Classification
- 6.3 IUPAC and Common nomenclature of halo alkanes and haloarene compound
- 6.4 Nature of C X bond
- 6.5 Preparation of haloalkane and haloarene compounds
- 6.6 Physical properties
- 6.7 D, L and R, S nomenclature
- 6.8 Chemical Properties
  - Reaction of haloalkane
  - Nucleophilic reaction : SN<sup>1</sup> and SN<sup>2</sup> reaction mechanism
  - Elimination reaction
  - Reaction with metal (Grignard and Wuatz reaction)
  - Reaction of haloarenes (nucleophilic, electrophilic and reaction with metal)
- 6.9 Polyhalogen Compounds

[Preparation, Properties and uses]

## Unit-7 ALCOHOLS, PHENOLS AND ETHERS

- 7.1 Introduction
- 7.2 Classification of Alcohols
- 7.3 Nomenclature of Alcohols
- 7.4 Electronic Structure of Alcohol
- 7.5 Physical properties of Alcohols
- 7.6 Preparation of Alcohols
- 7.7 Chemical Reactions of Alcohol
- 7.8 Nomenclature of Phenols
- 7.9 Electronic Structure of Phenol
- 7.10 Physical Properties of Phenol
- 7.11 Preparation of Phenol
- 7.12 Chemical Reaction of Phenol
- 7.13 Nomenclature of Ether Compound
- 7.14 Electronic Structure of Ether
- 7.15 Physical properties of Ether
- 7.16 Preparation of Ethers
- 7.17 Chemical reactions of Ether

#### Unit-8

## CHEMICAL KINETICS

- 8.1 Introduction
- 8.2 Factors affecting the rate of Chemical reaction
- 8.3 Rate of Chemical Reaction
- 8.4 Rate constant and order of reaction
- 8.5 Molecularity
- 8.6 Integrated rate law
- 8.7 Zero order reaction
- 8.8 Rate equation for first order reaction
- 8.9 Pseudo first order reaction
- 8.10 Determination of order of reaction
- 8.11 Effect of temperature on rate constant
- 8.12 Theory of collision
- 8.13 Mechanism of Chemical reaction

#### Unit-9

## SURFACE CHEMISTRY

- 9.1 Introduction
- 9.2 Adsorption :

(Mechanism of adsorption, types of adsorption, factors affecting adsorption).

- 9.3 Freundlich adsorption isotherm
- 9.4 Langmuir adsorption isotherm

- 9.5 Adsorption from solution and uses of adsorption
- 9.6 Catalysis
- 9.7 Nature of solid catalyst
- 9.8 Shape selective catalysis by zeolite
- 9.9 Enzyme catalysis : (Mechanism, Characteristics)
  - Catalysis in industries.
- 9.10 Colloids and their types
- 9.11 Methods of preparing colloid sol
- 9.12 Purification of colloidal solution sol
- 9.13 Important properties of colloidal solution sol.
- 9.14 Coagulation of Colloids
- 9.15 Emulsion :
  - Test, preparation and Demulsification
- 9.16 Uses of colloids

#### d AND f BLOCK ELEMENTS

- 10.1 Introduction
- 10.2 Transition elements Elements of d-block
  - Electron configuration, Oxidation States, general characteristics.
- 10.3 Periodic trends in properties of elements of first transition series.
- 10.4 Characteristic properties of elements of first transition series.
- 10.5 Interstitial compounds
- 10.6 Alloys
- 10.7 Some important compounds of 3d-transition elements
- 10.8 Application of d-block elements.
- 10.9 Inner transition elements [Elements of f-block]
- 10.10 Lanthanide Series;
  - Electronic Configuration, Oxidation States, atomic volume and Chemical reactivity.

10.11 Actinide Series

- Electronics configuration and oxidation states
- 10.12 Comparision of Actinoids with Lanthanoids
- 10.13 Application of f-block elements

#### Unit-11

#### COMPLEX SALTS OR CO-ORDINATION COMPOUND

- 11.1 Introduction
- 11.2 Werner's Theory
- 11.3 Classification of ligands
- 11.4 Requirements for formation of complexes
- 11.5 Stability of complexes and strength of ligands
- 11.6 Geometry of Complex ions

- 11.7 Hybridization of orbitals of metal ions of complexes and magnetic properties
- 11.8 IUPAC nomenclature of complexes
- 11.9 Geometrical structures and magnetic properties of complexes
- 11.10 Isomerism in complexes
- 11.11 Crystal field theory
- 11.12 Importance and application of complexes.

## ALDEHYDES, KETONES AND CARBOXYLIC ACIDS

- 12.1 Introduction
- 12.2 Structure and nomenclature of carbonyl group
- 12.3 Physcial properties of aldehydes and ketones.
- 12.4 Chemical reactions of aldehydes and ketones.
- 12.5 Uses of aldehydes and ketones
- 12.6 Carboxylic acids
- 12.7 Common and IUPAC nomeuclature of Carboxylic acids.
- 12.8 Structure of Carboxylic Group
- 12.9 Methods of preparation of carboxylic acids
- 12.10 Physical properties of Carboxylic acids
- 12.11 Chemical reactions of carboxylic acids
- 12.12 Acidic nature of carboxylic acids

12.13 Uses of carbxylic acids

#### Unit-13

## ORGANIC COMPOUNDS CONTAINING NITROGEN

- 13.1 Introduction
- 13.2 Structure of amines
- 13.3 Classification of amines
- 13.4 Common and IUPAC nomenclature of amines.
- 13.5 Preparation of amine compounds
- 13.6 Physical properties of amines
- 13.7 Chemical reactions of amines
- 13.8 Diazonium salt
- 13.9 Cynide and nitrile compounds
- 13.10 Isocyanide compounds
- 13.11 Nitro compounds

## Unit-14

#### **BIOMOLECULES**

- 14.1 Introduction
- 14.2 Carbohydrates :
  - Classification
  - nomenclature

14.3 Monosaccharides :

- Glucose and fructose
- Preparation and Structure of Glucose
- 14.4 Disaccharides :
  - Sucrose
  - Maltose
  - Lactose
- 14.5 Polysaccharides : Starch and Cellulose
- 14.6 Importance of Carbohydrates
- 14.7 Proteins :
  - aminoacids
  - peptides
  - structures of proteins
  - Denaturation of proteins
- 14.8 Enzymes
- 14.9 Vitamins
- 14.10 Nucleic acids

## Unit-15

#### POLYMERS

- 15.1 Introduction
- 15.2 Classification of polymers
- 15.3 Industrial manufacturing, properties and uses of:
  Polythene, teflon, PAN, PVC, Polystyrene, butyl rubber, SBR, Nylon-66, Nylon-6, Dacron, (Terelyne) Bakelite, Melamine
- 15.4 Rubber :
  - Nature rubber
  - Vulcanised rubber
  - Synthetic rubbers : Neoprene, BuNa N, BuNa-S
- 15.5 Molecular mass of polymers
- 15.6 Biopolymers
  - Biodegradble polymers
  - Non biodegradable polymers
  - PHBV, Nylon-2-Nylon-6, PGA, PLA, Dextran

#### Unit-16

## CHEMISTRY IN EVERDAY LIFE

- 16.1 Introduction
- 16.2 Drugs
- 16.3 Classification of Drugs
- 16.4 Working mechanism of Drugs
- 16.5 Therapentic action of different classes of Drugs
- 16.6 Chemicals in Food
- 16.7 Cleansing agents

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# PHYSICS CURRICULUM

## Unit-1

## Electric Charge & Electric Field

- \* Electric Charge
- \* Quantization of Electric Charge
- \* Conservation of Electric Charge
- \* Charging by Induction
- \* Coulomb's Law
- \* Superposition Principle
- \* Electric Field.
- \* Electric field due to point charge
- \* Electric dipole and its electric field
- \* Electric dipole in a uniform electric field and non uniform field
- \* Continuous distribution of charges
- \* Electric field lines and its characteristics
- \* Electric flux
- \* Guass's law and its applications

## Unit-2

## electrostatic potential & capacitance

- \* Electrostatic potential
- \* Electrostatic potential energy
- \* Electric potential due to point charge
- \* Electric potential due to an electric dipole
- \* Electric Potential due to system of charges
- \* Equipotential surface
- \* Relation between the electric field and the electric potential.
- \* Potential Energy of a system of point charges
- \* Potential Energy of an electric dipole in an external electric field
- \* Electrostatics of conductors
- \* Capacitor and capacitance
- \* Parallel plate capacitor
- \* Combination of capacitors
- \* Energy stored in a charged capacitor
- \* Dielectric substances and their polarization
- \* Capacitor with dielectric
- \* Van-De-Graff Generator

## **Current Electricity**

- \* Electric Current and Current Density
- \* Ohm's Law and its limitations
- \* Electrical Resistivity and Conductivity
- \* Drift Velocity and Mobility and its relation with current
- \* Temperature Dependence of Resistivity
- \* Classification of materials on the basis of resistivity
- \* Colur Code for Carbon Resistors
- \* Super Conductivity
- \* Electromotive force and Terminal Voltage of a cell.
- \* Secondary Cell : Lead Accumultor
- \* Kirchhoff's Law and their Applications
- \* Combination of Resistors
- \* Combination of Cells
- \* Wheatstone Bridge and Metre Bridge
- \* Potentiometer, its Principle and application
- \* Electric Energy and Electric Power
- \* Joule's Law and its Practical Applications

## Unit-4

## Magnitic Effect of Electric Current

- \* Oersted's Observation
- \* Biot Savart's Law and its Application
- \* Ampere's Circutical Law and its Application
- \* Force on a Current Carrying wire placed in a Magnetic Field and its Application
- \* Force on an electric charge moving in a Magnetic field and Lorentz force.
- \* Cyclotron
- \* Torque Acting on a Rectangular current carrying Coil kept in Uniform Magnetic field.
- \* Galvanometer, Voltmeter, Ammeter.

## Unit-5

## Magnetism & Matter

- \* Bar Magnet
- \* Current Loop as a Magnet and its Magnetic Moment.
- \* Magnetic moment of an electron rotating around the nucleus of an atom.
- \* Equivalence between a Bar magnet and a solenoid.
- \* Torque Acting on a magnetic dipole (Bar Magnet) in a Uniform Magnetic field.
- \* Guass's law for Magnetic field
- \* Magnetism of Earth and Magnetic elements
- \* Magnetization and Magnetic Intensity.

- \* Magnetic Properties of Materials: Dia, Para and Ferro magnetism and Hysterisi's
- \* Permanent Magnets and Electromagnets

## **Electromagnetic Induction**

- \* Faraday's Experiments
- \* Magnetic Flux
- \* Lenz's Law
- \* Faraday's Law
- \* Motional Emf
- \* Eddy Current and its Application
- \* Self Induction
- \* Mutual Induction
- \* A. C. Generator

## Unit-7

## Alternating Current

- \* L-C-R Series Circuit, its differrential equation and solution.
- \* Different cases of A.C. Circuit
- \* r-m-s values of voltage and current.
- \* Series Resonance and Q factor
- \* Phasor Method and its Applications
- \* L. C. Oscillations
- \* Power and Energy Associated with L, C and R in an A.C. Circuit.
- \* Transformer

## Unit-8

## **Electro Magnetic Waves**

- \* Displacement Current
- \* Transverse nature of Electromagnetic Waves
- \* Characteristics of Electromagnetic Waves
- \* Electromagnetic Spectrum and Primary facts of its Applications

## Unit-9

## **Ray Optics**

- \* Reflection by Spherical Mirror
- \* Relation between focal length and Radius of curvature
- \* Spherical Mirror formula
- \* Lateral Magnification
- \* Refraction of Light
- \* Lateral Shift
- \* Total Internal Reflection and Applications
- \* Refraction at a spherical curved surface.
- \* Spherical Lenses, Thin lens, Lens Makers formula, Newton's formula

- \* Lateral Magnification of lens and Power of lens
- \* Combination of Thin Lens in contact
- \* Combination of Lens and Mirror
- \* Refraction and Dispersion of Light due to Prism
- \* Scattering of Light & Types
- \* Optical Instrument (Simple Microscope, Compound Microscope, Astronomical Telescope.)
- \* Human Eye and defects of vision

## Wave optics

- \* Wave front and Huygen's Principle.
- \* Reflection and Refraction of Light through the concept of wavefront
- \* Superposition Principle Interference and Young's experiment.
- \* Diffraction and Diffraction due to single slit.
- \* Comparison between Diffraction and interference
- \* Resolving Power of Optical Instrument (Telescope, Microscope)
- Polarization, Plane polarized Light, Brewster's Law and Uses of Polarization.
  Polaroid, Malu's Law, Nicol Prism.

## Unit-11

## Dual Nature of Radiation and Matter

- \* Black body Radiation
- \* Plank's Hypothesis for Radiation
- \* Photo electric effect
- \* Hertz's experiment
- \* Lenard's experiment
- \* Einstein's explanation for Photo electric effect
- \* Particle Nature of Light
- \* Photo cell and its uses
- \* Mater Waves Wave nature of particles
- \* Davission Germer Experiment

## Unit-12

## Atoms

- \* Thomson's Plum Pudding Model
- \* Rutherford's Experiment of Alpha Particles and his atomic Model, its limitation
- \* Atomic Spectra
- \* Bohr's Atomic Model its success and limitation & Hydrogen Spectra
- \* Energy level and Hydrogen Spectra
- \* Quantization of Energy and Momentum
- \* Excitation and Ionization potential
- \* Emission and Absorption Spectra
- \* X-rays its Spectrum & Explaination

## nucleus

- \* Atomic Mass and Constitution of Nucleus
- \* Nuclear Radius, Nuclear Stability, Nuclear Forces
- \* Mass-Energy relationship and Nuclear Binding Energy
- \* Natural Radioactivity
- \* Radio active Radiations
- \* Radio active Constant and Activity
- \* Exponential Law of Radioactive Disintegration
- \* Half Life & Mean Life
- \*  $\alpha$  decay,  $\beta$  decay,  $\nu$  decay
- \* Nuclear Fission, Nuclear Fusion and Nuclear Reaction

## Unit-14

## Semi Conductor Electronics

- \* Conductors, Insulators and Semiconductors (Bond Picture and Band Picture)
- \* N and P Types Semiconductors.
- \* P-N Junction diode
- \* Static Characteristics of P-N junction diode
- \* P-N junction diode as a Rectifier
- \* Special Types of PN junction Zener diode, LED, Photo diode, Solar Cell.
- \* Transistor, its working, characteristic of a transistor, Transistor as an Amplifier
- \* Transistor as a Switch
- \* Transistor as an Oscillator
- \* Digital Electronics and Logic Circuits (AND, OR, NOT, NAND and NOR Gates)
- \* Primary Concept of IC

## Unit-15

## communication system

- \* Communication System (Transmitter Channel, Receiver, Noise)
- \* Signals and / Bandwidth
- \* Modulation and its necessity
- \* Modulation and its types
- \* Amplitude Modulation
- \* Frequency Spectrum of AM Wave
- \* Production of AM Wave
- \* Demodulation
- \* Propagation of Electromagnetic Waves (Ground Wave, Sky Wave & Space Wave)

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# BIOLOGY CURRICULUM

## Unit-1

## PLANT BIOLOGY AND PHYSIOLOGY

## 1.1 Transport in Plant

#### Introduction

- (a) Means of Transport
  - Diffusion
  - Facilitated diffusion
  - Active transport
  - Comparision of different transport processes
- (b) Plant water relation
- (c) Water potential
- (d) Osmosis and aspects affecting the process of osmosis Thistle funnel experiment
- (e) Plasmolysis
- (f) Imbibition
- (g) Long distance transport of water
  - How do plants absorb water ? (Apoplast, symplast and transmembrance transport)
- (h) Transport of water in plant
  - Root pressure theory
  - Transpiration pull theory
- (i) Transpiration; types, structure of dicot and monocot stomata, mechanism of opening and closing of stomata
- (j) Transpiration and photosynthesis, a compromise
- (k) Uptake and transport of mineral nutrient
- (l) Translocation of mineral ions
- (m) Phloem transport; flow from source to sink
- (n) Mass flow hypothesis (The pressure flow hypothesis)

## **1.2 MINERAL NUTRITION :**

#### Introduction

- (a) Methods to studes mineral requirement of plants, and types and adventages of hydroponics
- (b) Essentials of minerals
  - Criteria for essesntiality and types and role of macro nutricents and micro nutrient, in plants, their source, relative amount, functions and their classification.
  - Deficiency symptoms of essential nutrient : N, K, P, Ca, Mg, S, Fe, Mn, Zn, Cu, B, Mo, Cl

- (c) Toxicity of micronutrients
- (d) Absorption of mineral nutrient, simple or passive absorption, Diffusion Ion exchange, Donnan equilibrium, Principles of mass flow, Active transport
- (e) Translocation of solute
- (f) Soil as reservoir of essential elements
- (g) Nitrogen metabolism
- (h) Nitrogen cycle
- (i) Biological fixation of nitrogen
- (j) Synthesis of aminoacids
  - Reductive amination
  - Transamination
- (k) Synthesis of protein

#### **1.3 GROWTH AND DEVELOPMENT IN PLANTS**

#### Introduction

- (a) Growth
  - Growth as progressive development of an organism
  - Characteristics of growth
  - Process of growth
  - Primary and Secondary growth
  - Role of growth
  - Phases of growth : of cell division; of cell elongation, of cell differcution
  - Grand period of growth
- (b) Factors affecting growth

(Water, Oxygen, Temperature, Light, Nutrient)

- (c) Measurement of growth
- (d) Development

Growth - regulators, Growth Promotors. Auxin, Gibbrrelin and Cytokinin Growth inhibitors (Ethylene, Abscisic Acid)

- (e) Seed Dormancy
- (f) Types of seed dormancy;
  - Exogenous and its sub groups, Endogenous and its sub groups
  - Combination, Dormancy and Secondary Dormancy
- (g) Various causes for seed dormancy
- (h) Removal of seed dormancy
- (i) Seed germinatoon & its types
- (j) Sensescence

(k) Abscission

(l) Photoperiodism

- (m) Vernaligation
- (n) Plant Movements
  - Locomotom movents, Autonomous and Induced
  - Curvature movements; Autonomous; Induces (Tropism and Nastism)

## Unit-2

## Photosynthesis and Cellular Respiration

#### 1. Photosynthesis

#### Introduction

- (a) What do we know about photosynthesis ?
- (b) Early Experiments (Joseph Pristely, Jan Ingenhousz, Julius Von Sachs, Cornelius Van Niel, Robert Hill)
- (c) Where does photosynthesis take place / Site of Photosynthesis
- (d) Pigments are involved in photosynthesis
- (e) Light reaction
- (f) The electron transport system
  - Photolysis of water (Spliting of Water)
  - Cyclic and non-cyclic photophosphorylation
- (g) Chemiosmotic hypothesis
- (h) Where are ATP and NADP used in Photosynthesis
- (i) The primary acceptor of CO<sub>2</sub>
- (j) The Calvin Cycle
- (k) C<sub>4</sub> Path / Cycle
- (l) Photorespiration
- (m) Factors affecting the process of Photosynthesis
- Law of limiting factors
- Light
- CO<sub>2</sub> Concentration
- Temperature
- Water

## 2. Respiration

- (a) Introduction and Endergonic, Exergonic processes
- (b) Do Plant breathe ?
- (c) Glycolysis

- (d) Fermentation (Alcoholic and Lactic)
- (e) Aerobic respiration
- (f) Tricarboxylic Acid Cycle and its Significans

Electron transport system and oxidative phosphorylation Mechanism of Chemiosmotic Generation of ATP

- (g) The respiratory balance sheet
  - Synthesis of ATP during Glycolysis
  - Synthesis of ATP during Kreb Cycle
- (h) Amphibolic Path-ways
- (i) Respiratory Quotient (Carbohydrate, Protein, Fat)

#### Unit-3

## 1. reproduction in organism

#### Introduction

- (a) Asexual Reproduction in animal and Plant : Fission, sporulation, budding fragmentation spore formation
- (b) Vegetative propagation
  - Natural Methods
  - Artificial Methods; cuttings layering, grafting
- (c) Significans of vegetative reproduction
- (d) Sexual reproduction
  - Prefertilization events: Gametogenesis; Gamete transfer and fertiligation
  - Post fertilization events : Zygote, Embryogenesis

#### 2. SEXUAL REPRODUCTION IN FLOWERING PLANTS

#### Introduction

- (a) Flower : A sexual reproductive part of Angiosperm
- (b) Prefertilization : Structure and Events
  - Stament, Microsporangium and pollengrain
  - Internal Structure of Anther
  - Microsporogenesis
- (c) Structure of Pollen grain and development of male gametophyte
- (d) The Pistil
- (e) Megasporangium
- (f) Megasporogenes's
- (g) Embryo sal
- (h) Kinds of Pollination
  - Self pollination and its type
  - Cross pollination and its type

- (i) Adaptations contrivance for self pollination
- (j) Adaptation contrivanies for cross pollination
- (k) Agents of pollination;
  - Anemophily
  - Hydrophily
  - Zoophily (Birds and other animals)
  - Entomophily
- (l) Out-breeding devices
- (m) Pollen pistil interaction
- (n) Artificial hybridization
- (o) Significans of Artificial hybridization
- (p) Double Fertilization
- (q) Post fertilization : Structure and Events
- (r) Endosperm
- (s) Embryo and embryonic development in plant
- (t) Apomixis
- (u) Significans of Apouixis
- (v) Poly embryony
- (w) Importance of Polyembryony
- (x) Fruit formation and development of seed
- (y) Types of fruits
- (z) Dormancy in seed

### 3. Reproduction in human

- (a) Sexual dimorphism in human
- (b) Reproductive system of human, principal organs, accessory organs and accesson glands)
  - Male Reproductive System
  - Female Reproductive System
- (c) Gameto Genesis
  - Spermatogenesis
  - Formation of Spermatids
  - Spermeogenesis
- (d) OOGenesis
- (e) Menstrual Cycle

- (f) Fertilization and implantation of Embryo
- (g) Pregnancy and Embryonic development with focus on changes occuring in embryo and foelus during development
- (h) Parturition and Lactation

#### 4. Reproductive Health

#### Introduction

- (a) Reproductive Health Problem and Strategies
- (b) Population explosion and necessity to control birth control and patterns of birth control

#### **Barrier Methods**

- (a) Physical method
- (b) Chemical method
- (c) Intrauterine Devices (IUDS)
- (d) Hormonal methods
- (e) Sterilization
- (f) Natural methods
- (g) Medical termination of pregnancy
- (h) Sexually transmitted disease (Gonorrhoea, Syphillis, Genital herpes, Hepatitis AIDS, Trichomoniasis) with their pathogen and major symploms
- (i) Methods of diagnosis and their prevention and cure

#### Infertility

- (a) Basic understanding of ART
- (b) Common methods of ART
  - IVF (In Vitro Fertilization)
  - ZIFT (Zygote Intrafallopian Transfer)
  - GIFT (Gamats Intrafallopian Transfer)
- (c) Aminocentesis

#### Unit-4

#### 1. Human Anatomy and Physiology-I

#### Digestive System and Digestion and absorption

- (a) Digestive System of human and Digestive glands (Accessory and present in wall of alimentary canal)
- (b) Histological Structure of alimentary canal
- (c) Functions of each organ of alimentary canal

- (d) Digestion of Food
  - Digestion in mouth
  - Digestion in stomach (Gastric)
  - Digestion in small intestine
- (e) Role of enzymes and hormones in digestion
- (f) Composition of digestive juice
- (g) Absorbtion of food
- (h) Disorders of digestive system (Inbrief)
  - Kwashiorkor, Gastritis, Peptic ulcer
  - UCerative colities
  - Constipation
  - Jaundices
  - Diarrhoea

## 2. BREATHING AND EXCHANGE OF GASES

- (a) Respiratory System of Human
- (b) Mechanism of respiration
  - Inspiration
  - Expiration
- (c) Respiratory volumes and Capacities
- (d) Exchange of Gases
- (e) Transport of Respiratory Gases
- (f) Transport of  $O_2$  in the blood
- (g) Transport of CO<sub>2</sub> in the blood
  - In form of Physical Solution
  - As chemical Compound
  - (i) Carbamino Compound
  - (ii) As Bicarbonate (In R.B.Cs) and In Plasma)
- (h) Release of  $CO_2$  at Respiratory Surface.
- (i) Regulation of respiration
  - Nervous regulation
  - Chemical regulation
- (j) Disorders of Respiratory System (In brief)
  - Bronchitis
  - Asthma

- Emphysema
- Pneumonia
- Occupational lung diseases

## 3. BODY FLUID AND CIRCULATION BLOOD

#### Introduction

(a) Blood Plasma (composition and function) Blood

- (b) Blood corpuscles (Type, Proportion function and structure)
- (c) Blood Group (A, B, O, AB and Rh)

## 4. CONCEPT OF ERYTHROBLASTOSIS FOETALIS

- (a) Coagulation of blood in detail
- (b) Numerical system for nomenclature of blood clotting factors.
- (c) Lymph
- (d) Circulatory path-way
  - Open and Close circulation
- (e) Human Circulatory System
  - Heart External Structure
  - Heart Internal Structure
- (f) Cardiac Cycle
- (g) ECG
- (h) Double Circulation
- (i) Regulation of Cardiac activity
- (j) Disease related to blood circulation
  - Hypertention
  - Atherosclerosis
  - Arteriosclerosis

#### 5. EXCRETORY PRODUCTS AND THEIR ELIMINATION

- (a) Preliminary idea of Nitrogenous Waste like Ammonia, Urea, Uric acid....)
  - Ammonotelism, Ureotelism, Ammonotelic, Ureotelic and Urecotelism, Uricotelic animals
- (b) Human Excretory System with internal
- (c) Structure of Kidney and Ultra structure of Nephron
- (d) Type of nephron
  - (i) Juxta Medullary nephron
  - (ii) Corticle nephron

### 6. Urine Formation

- Glomerular Filtration
- Selective reabsorbtion
- Tubular Secretion

#### 7. Functions of the Tubules

- (a) Proximal Convoluted tubule (PCT)
- (b) Descending limb of loop of Henle
- (c) Ascending limb the loop of Henle
- (d) Distal Convoulated tubule (DCT)
- (e) Collecting Tubule
- (f) Mechanism of Concentration of the filtrate (General concept of counter current mechanism and osmolarity of regions of kidney)
  - Hele's Loop
  - Vasa Rectum
- (g) Regulation of Kidney function
- (h) Micturition
- (i) Composition, characteristics and importance of Urine in clincal diagnosis.
- (j) Role of other organ in excretion in animals
- (k) Disorders of Excretory System
  - Uremia
  - Kidney Failure
  - Renal Canaliculi
  - Nephritis

#### Unit-5

### Human Anatomy and Physiology-II

# 1. LOCOMOTION AND MOVEMENTS AND SKELETALSYSTEM

#### Introduction

- (a) Different types of locomotion and movements in animals
- (b) Types of Movements
  - Amoeboic
  - Ciliary / Flagellary
  - Muscular
- (c) Muscle General Properties & Informations
- (d) Types of Muscle
  - Skeletal
  - Visceral
  - Cardiac

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- (e) Ultrastructure of Skeletal Muscle
- (f) Structure of Contractile Protein
- (g) Mechanism of Muscle Contraction
- (h) Type of skeletal muscles : Red and White
- (i) Skeletal System of human
- (j) Axial Skelatal System
  - Skull
  - Vertebral Column, Sternum, Rib
- (k) Appendicular Skeletal System
  - fore limb and pectoral girdle
  - Hind limb and pelvic girdle
- (l) Joints

Types of Joints

- Fibrous
- Cartilagenous
- Synovial Joints
- (m) Disorders of Skeletal System
  - Myasthemia Gravis
  - Tetany

# 2. NEURAL CONTROL AND CO-ORDINATION IN ANIMALS AND NERVOUS SYSTEM

#### Introduction

- (a) Nervous System
- (b) Nerve Cell Structural and functional Unit of nervous system
- (c) Structure of nerve cell
- (c) Initiation of the impulse or action potential
- (d) Conduction of nerve impulse through nerve fibre Resting Potential
  - Structure of nerve fibre
  - Action Potential
- (e) Conduction of nerve impulse (Property and saltatory conduction)
- (f) Transmission of nerve impulse at a Synapse

#### (3) HUMAN NERVOUS SYSTEM

Central nervous system (CNS)

Peripherial nervous system (PNS)

(CNS in detail, PNS - Just in brief)

### (4) CENTRAL NERVOUS SYSTEM

Brain :- Fore brain, Mid brain, Hind brain

#### (5) SPINAL CORD

- (a) Reflex action; reflex Arc
- (b) Conditioned acquired reflex and unconditioned reflex
- (c) Sensory reception and processing
  - Eye Structure and its mechanism
  - Mechanism of vision
- (d) Structure of Ear
- (e) Mechanism of hearing
- (f) Disorders of Nervous system
  - Multiple Scterosis, parkinson's deseases
  - Sciatica

## (6) CHEMICAL CO-ORDINATION AND CONTROL :

Endocrine Glands and their hormones, General Functions of the hermones their Hypo and Hyper activities and related disorders.

- (a) Hypthalames
- (b) Pituitary Gland
- (c) Pineal Gland
- (d) Thyroid Gland
- (e) Parathyroid Gland
- (f) Thymus
- (g) Adrenal Gland
- (h) Pancrease
- (i) Testes
- (j) Ovary
- (k) Hormones of heart, kidney and Gastrointestinal tract
- (l) Mechanism of Harmone action

#### Unit-6

### 1. Genetics and Molecular basics of inheritance

- (a) Historical Background of Heredity
- (b) Mendel's Work
- (c) Monohybrid experiment
  - Law of dominance
  - Law of Segregation
  - Test Cross

- (d) Dihybrid Experiment
  - Law of independent assortment
- (e) Evalution of Mendel's Work
- (f) Incomplete dominance
- (g) Co-dominance
- (h) Polygenic Inheritance
- (i) Multiple Allele
- (j) Pleiotropism
- (k) Chromosomal basis of inheritance
- (l) Linkage and Recombination
  - Linkage in Sweet Pea Plant
  - Linkage in Drosophila
  - Crossing over in Drosophila

#### 2. SEX - DETERMINATION

- (a) Chromosomal theory of sex determination
- (b) Theory of heterogamesis
  - XX XY type
    - (i) XX female XY male type (e.g. Drosphila & Man)
    - (ii) XY female XX male type
  - XY XO type sex-determination
    - (i) XX female and XO male type
    - (ii) XO female and XX male type
- (c) Gene balance theory
- (d) Haploidy and Diploidy mechanism
- (e) Gynandromorph
- (f) Barr body test
- (g) Enviornmental effect on sex-determination
- (h) Hormonal theory of sex-determination
- (i) Sex-determination in plant
  - Sex defferentiation in monoecious plant
- (j) Genetic Variation
  - Mutation
  - Types of mutation
  - Numerical mutation in chromosome
    - (i) Euploidy
    - (ii) Aneuploidy

- (k) Structural abnormalities in chromosome
- (l) Chromosomal Abberration
  - Deletion
  - Duplication
  - Inversion
  - Translocation
- (m) Gene Mutation
- (n) Genetic disorder
- (o) Pedigree analysis
- (p) Mendelin disorders
  - Haemophilia
  - Colour blindness
  - Thalassamia
  - Sickle cell anemia
- (q) Inborn errors of metabolism
  - (i) Phenyl Ketonuria
  - (ii) Alkaptonuria
  - (iii) Albinism
- (r) Human Karyotype and blood culture method
- (s) Chromosomal disorders
  - Down Syndrome
  - Turner's Syndrome
  - Klinefelter's Syndrome

## 3. MOLECULAR BASIS OF INHERITANCE

#### Introduction

(a) DNA as Genetic material

Bacterial transformation or Griffith - effect

(b) Avery, Mccarty & Macleod experinent to prove DNA as Genetic Material Transformation /Synthetsis of DNA in Lab.

DNA as a Genetic Material

- (c) DNA Molecular Structure
- (d) Properties of Genetic material (DNA) Versus RNA.

- (e) Replication of DNA
  - Mechanism of DNA replication
- (f) Transcription
- (g) Genetic Code Triplet Code
- (h) The main properties of genetic code
- (i) Mutation and Genetic Code
- (j) t RNA
- (k) Central dogma
- (l) Translation : Biosynthesis of Protein
  - (i) Initiation
  - (ii) Elongation
  - (ii) Termination
- (m) Gene -
- (n) Regulation of Gene expression
- (o) Operon Concept (Structural gene and control gene)
  - (i) Regulator Gene
  - (ii) Promotor Gene
  - (iii) Operator Gene
- (p) Negative and Positive regulation

#### 4. HUMAN GENOME PROJECT

#### Introduction

- (a) Goals of HGP
- (b) Future challenges of HGP
- (c) Application of Human Genome Project
- (d) Salient Feature of Human Genome

#### (5) DNA Finger Printing

#### Introduction

- (a) Making of DNA Finger Prints.
- (b) Application of DNA Finger Print.

#### Unit-7

#### **Biotechnology**

# 1. **BIOTECHNOLOGY : PRINCIPLES AND PROCESSES**

- (a) Principles of Biotechnology
  - (1) Genetic Engineering
  - (2) Maintenance of Sterile Condition (Chemical Engineering)

- (b) Tools of DNA Recombinant Technology
  - (1) Restriction Enzymes
  - (2) Cloning Vectors (requirement to facilitate cloning into vector)
  - (3) The Stages involve in the basic principales of recombinant DNA technology
  - (4) Competent Host
- (c) Process of Recombinant DNA Technology
  - (1) Isolation of the Genetic Material (DNA)
  - (2) Cutting of DNA at Specific Locations
  - (3) Amplification of Gene of Interest using PCR (Denaturation Annealing, Extension)
  - (4) Insertion of recombinant DNA into Host Cell / Organison
  - (5) Obtaining the Foreign Gene Product
  - (6) Down Stream Processing.

#### 2. BIOTECHNOLOGY AND ITS APPLICATION

#### Introduction

- (a) Biotechnological Applications in Agriculture
- (b) Genetically modified organism
  - Bt Cotton
- (c) Biotechnological Application in Medicine
  - Genetically enginered Insulin
  - Gene Therapy
- (d) Transgenic Animals
- (e) Ethical issue
- (f) Biopatent
- (g) Biopiracy
- (h) Biosafety issue

#### Unit-8

#### **Ecology and Evolution**

#### 1. ORGANISM AND POPULATION

- (a) Meaning, Definition and Various branches of ecoogy
- (b) Enviornment
- (c) Habitat
- (d) Basic Concept of ecology

- (e) Major abiotic factors
  - Light
    - Light reaction to Plant
    - Light reaction to Animal
  - Tempearture factor
    - Temperature factor in reaction to plants
    - Temperature factor in reaction to animal
- (f) Water : Water as mother of life; thermal stratification, temperature variation in difference habitat
  - Water balance and adaptations
  - Water problems in sea-water
  - Water problems in terrestrial habitat
- (g) Soil as abiotic factor and its farma and flora
- (h) Response to abiotic factors
  - To cope with unfavourable condition
  - Regulate
  - Conform
  - Migrate
  - Suspended
- (i) Adaptations
- (j) Population
- (k) Salient features of population
- (l) Characteristics of population
  - Density
  - Natality ; carrying capacity
    - ; potantial natality (maximum natality)
  - Mortality ; Realized and potential mortality, vital mortality
  - Age Distribution Age pyramid
  - Population growth
  - Population Equilibrium : Growth curves
  - Population fluctuation
  - Population interaction
- (m) Factors affecting on population growth
  - Extrinsic Food, shelter, space weather etc.
  - Instrinsic Competition, predation Emigration, Reproductivity and diseases

- (n) Life history variation
- (o) Types of population interactions, Interspecific interaction, mutualism, competition, predation, parasitism, Commensalism, Amensalism.
- (p) Biotic communits and its exampels
  - Characteristics of biotic community species diversity Structure, Community Dominant, Ecological niche, Succession.
- (q) Ecological Succession
  - Basic types of sucession
- (r) General process of succession
- (s) Pattern of succession Zerosere, Hydrosere, Mesosere.

#### 2. ECOSYSTEM

#### Introduction

- (a) Kind of ecosystem
- (b) Structure of ecosystem in detail
- (c) Functions of ecosystem in detail
- (d) Food chains Gazing and detritus food chain
- (e) Food Web
- (f) Trophic levels
- (g) Ecological Pyramid of Numbers
- (h) Ecological Pyramid of Biomass
- (i) Ecological Pyramid of Energy
- (j) Energy flow
- (k) Types of Productivity
  - Primary Productivity (GPP & NPP)
  - Secondary Productivity
  - Net Productivity
- (l) Decomposition

Process of Decomposition

- (m) Bio-geochemical Cycle
  - Gaseous cycle (Carbon, Nitrogen, Oxygen)
  - Sedi mentary Cycle (Phosphorous and Suphur)
- (n) Carbon Fixation
- (o) Pollution free Oxygen
- (p) Facts about Oxygen

# 3. **BIODIVERSITY AND ITS CONSERVATION**

#### Introduction

- (a) Types of biodiversity
  - Genetic diversity
  - Species ( $\alpha$ -diversity,  $\beta$ -diversity and  $\gamma$ -diversity)
  - Ecological diversity
- (b) The Composition of biodiversity
- (c) AIMS of biodiversity
- (d) Patterns of biodiversity
  - Latitudinal gradients
  - High biodiversity in tropics:
    - Speciation
    - Effect of environment
    - Species area relationship
- (e) Importance of Bio-diversity

(Food, Productive use value, Aesthetic and Cultural benifits, Ecosystem services)

- (f) Biodiversity at world level
  - At World Level
  - At National Level
  - Biodiversity of Gujarat
- (g) Loss of biodiversity
- (h) Causes of bio-diversity losses
  - Habitat loss and fragmentation
  - Over exploitation
  - Allen Species invasion
  - Co-extinction
- (i) Biodiversity conservation
- (j) Method to conserve biodiversity
  - In-situ conservation
  - Ex Situ conservation
- (k) In Siteu Conservation
  - Benifts of Protected Areal
  - National Park
  - Sanctuaries
- (l) Biosphere reserves and its zones
  - (1) Core Zone (2) Buffer Zone (3) Transitional Zone etc.
- (m) Ex-situ conservation
  - Importance and examples and general idea.
  - Seed bank
  - Gene bank

## 4. ENVIRONMENT ISSUE

#### Introduction

- (a) Air Pollution and it's control
- (b) Control of Air Pollution
- (c) Air Pollution due to vehicles a case study of Gujarat
  - Water pollution and its control
  - Domestic sewage and Industrial effluents
  - Biological magnification
  - Waste water treatment
  - Solid waste
  - Composite waste
  - Domestic hazardous waste and toxic waste
  - Use of plastic waste
  - Salient features of polymer waste bitumen mix road
  - Agrochemicals and their effects
  - Case study of Organic forming
  - Radio active waste
  - Greenhouse Effect and Global Warming
- (d) Steps to control global warming
- (e) Ozone depletion in the stratospher
- (f) Degradation by improper resource utilization and maintanance
- (g) Soil erosion and desertification
- (h) Water logging and soil salenity
- (i) Deforestation
- (j) People participation in forest conservation
- (k) Study of three beneficial environmental issues.

#### 5. EVOLUTION

#### Introduction

(a) Origin of life

Abiogenesis, Biogenesis, Meteorite Theory, Theory of Eternity, Theory of Catatrophism, Theory of Organic Evolution.

- (b) Oparin Haldane theory :
  - Chemical Evolution
  - Biological Evolution
- (c) Experimental evidences for evolution of life
  - Uree and miller's experiment

- (d) Stages of Evolution of life forms
- (e) Evidences of evolution :
  - Morphology Organ
  - Analogous Organ
  - Homologous Organ
  - Vestigeal Organ
  - Connecting link
  - Embryology
  - Physiologycal
- (f) Adaptive radiation (concept, types, causes) and classification
- (g) Biological Evolution
- (h) Lamarckism
- (i) Drawbacks of Lamarckism
- (j) Darwinsim
- (k) Limitation of Drawinions
- (l) De Vries theory
- (m) Modern Concept of Evolution
- (n) Mechanism of Evolution
- (o) Hardy Weinbery Law
  - Gene Pool
  - Gene frequency
  - Practical application of law
  - Significance of law
- (p) Gene Flow
- (q) Genetic drift
- (r) Brief account of evolution
- (s) Origin and Evolution of Man.
- (t) Human Evolution trends
- (u) Fossil's record of man's evolution

(Propliopithecus, Aedyptopithecus, Dryopithecus, Oreopithecus, Ramapithecus, Kenya pithecus Australopithecus, Homo ereclus, Homo Sapiens, Neanderthan man, Rhodesian Man, Cro-Magnon Man)

(v) Modern Man.

#### Instruction for filling on-line Registration form for appearing in GUJCET-2014

The candidates, who wish to appear in GUJCET-2014, have to apply on-line by filling in on-line application form, The candidate has to get Information Booklet, User ID and Password from Board by payment of Rs. 250/- by DD payable to "Secretary, Gujarat Common Entrance Test Cell, Gandhinagar." It is advisable to study the instruction given in information booklet before making on-line registration. On-line application form should be filled-in based on instruction given in the booklet and the example given below :

- 1. It is Compulsory to apply on-line for all those who wish to appear in GUJCET-2014.
- 2. The on-line application can be made after login to website www.gseb.org. Login can be done using the User ID and Password issued to the candidate. If desired, the candidate can change his/her Password. The password can be of maximum eight characters and it will be case sensitive (For example, 1234ABCD can not be entered as 1234abcd). The candidate cannot change the password after submission of the registration form.

Enter your	userid and	nanoword	to got ac	
Enteryou	usend and	password	to get ac	cess
User ID :				
Password :			1	
	Login	Clear		

- 3. First of all candidate has to enter 'Username' and 'Password' and click on the login button.
  - The online registration form will open where in the required information has to be filled in.
- 4. First enter two digit Board code (It is given in information booklet). The name of the board will now be displayed. It is mandatory to enter Board code. If Board code is 01 (i.e. Gujarat Secondary and Higher Secondary Education Board, Gandhinagar) than Enter School Index No. of the school where the candidate has studied in HSC science stream.
  - A. If the Board-code is 01, the centre no. alloted will be displayed on entry of School Index No. e.g. 01.016 Index No. school will have centre 201 (Ahmedabad city).
  - B. If the board-code is 01 and district code of school Index No. is 20, then the candidate will be shown centres 207 (Junagadh) or 216 (Valsad). The candidate should select only one of the two as per his/ her choice.
  - C. If the board code is other than 01, the candidate will have to select anyone from Examination centre for GUJCET by clicking on desired centre.
  - D. Selection of the centre is compulsory. The candidate will have to select one from offered centres. Center can not be changed once registration form is submitted.

	dary and Highe - Government of Gujarat	r Secondary Educ	cation Board
		GUJCET REGI	STRATION
UJARAT COMMON EN	TRANCE TEST -	2014	Helo
Welcome, J045157			Change password
Note: All fields marked with astr	lek (*) are compulsory		Logout Date : 31/03/2014
Board & School Details:			
Board Code :*	01	Name of Board:*	GUJARAT SECONDARY & HIGHER SECONDARY EDUCATION BOARD,
	01.111	Name of School:*	TEST
HSC School Index No :* For eg: "01.016"	15/753/320		

#### 5. Personal (Individual) Information :

- A. The full name of the candidate (surname, name, father's name) is to be filled in the on-line application form.
- B. The Date of Birth of the candidate is to be filled in the column of Date of Birth.
- C. The candidate has to click on the option 'male' or 'female' as appropriate.
- D. If the candidate is physically Handicapped, he or she has to click on the proper option of the type of handicap (He or she has to click only one option).
- E. The candidate has to click on the appropriate option of the 'Caste'.
- F. Full address of the candidate is to be filled in the address column. This address is used for correspondence, so complete information must be filled including Pincode and State.
- G. The Candidate has to fill E-mail Id in the column of 'E-mail ID', for that he/she must have E-mail ID, If not then fill relative's E-mail Id.
- H. Mobile Number is to be filled in the Mobile Number column. If he/she has no mobile no. then give mobile number of relative.
- I. The candidate has to fill landline number of his/her house.

Candidate Name:*	TEST.	*	TEST		
	Surname		First Name	Father's Nan	ne/Gaurdian Name
Date Of Birth:"	26/03/1987 Format: dd/mm/yyyy		Sex:"	€ Male C Female	
Caste:*	C SC C ST C OBC € Other		Physically Handicapped:	A - For Blind B - For Poor Visit C - For recovered D - For Hearing D E - For Bone Had F - For Mentally R G - Mental Sickne	l from Leprocy Defficiency dicapped Retarded
ddress 1:*	TEST1				
Address 2: *	TEST2				
Address 3:					
City:"	TEST CITY		State:*	Uttarakhand	×
Pincode:*	380005		E-Mail ID:*	test@t.com For eg: abc@xyz.com	
Mobile Number:*	9999999999		Landline(with STD Code):	STD Code: Phon	e No. :

#### (6) Information regarding Exam :

- A. The year of appearing in HSC Exam is to be selected in the information regarding the exam.
- B. If the board code is 01 and the year of appearing in HSC science stream is 2013 OR March 2014 (Semester System) it is compulsory for the candidate to fill the SID No allotted by the Board.
- C. If the board code is 01 and the year of appearing in HSC science stream is 2013 or privious years (Old Course), he/she has to enter seat no. of HSC Exam.
- D. If the board code is not 01, it is not necessary to show SID no and seat no.
- E. The candidate has to choose the group and click on 'B' or 'AB'

- F. The candidate has to click on either Gujarati, Hindi or English to fill the information of the Medium. The question papers of that particular medium will be provided to the candidate.
- G. The Candidate has to upload his/her passport size photograph in the JPG' format not more than 50 KB size. (Dimension 120 Px X 120 Px)
- H. The Candidate has to upload his/her signature by scanning in the JPG' format not more than 50 KB size. (Dimension 120 Px X 120 Px)

HSC Exam App	earing year:"	2013	×		Course:"	C Old C New (Semester System
	ssing Year is 2013 (Old ier, give Seat No.* 1			If HSC Exam, a	ppearing year is 2013 give SID No: For eg: 11V-999999	11V-
Group:"		C B € AB	3		Medium:	English
Candidate Picture:*	(File Type: jpg/jpeg, S	Phys  Cher  Biolo  Remov  Ize <= 50KE	mistry ogy e 8.	Candidate Signature:*	(File Type: .jpg/jpe	
2	Approx Dimensions: 1	20px X 120f	px)	Save	Approx Dimensions	: 120px X 120px)
	I Hereby declare that	all the data i	filled above is duly che	cked and correct as per my	knowledge, I here by d	leclare the data to be correct.

- I. The candidate can save the information by clicking on save 'button after filling all the information online in the application form,
- J. The candidate should re check all the information of the on-line application registration form. only then the candidate should submit the application form by clicking the submit button. They can see the information of the registration done on E-mail, The candidate will get application number also. It is necessary to have application number with you, kept intact.

The candidate can get his/her on-line application in print. To generate print, candidate can Login with Application Number or User ID/Password.

(7) 'Gujcet Help Manual' is available on the website. By following the guidelines available on line registration can be done for GUJCET-2014.

Login to print your application	-
Login with Application Number	폰
C Login with User ID/Password	F
Enter your Application number to get access	
Application no :	
Login Clear	

# Appendix-3 Code and Names of Std. 12th Examination boards for filling details online (Registration) for GUICET

Sr. No.	Name of the Board	Code No. of Board
1.	Gujarat Secondary & Higher Secondary Education Board, GANDHINAGAR.	01
2.	Andhra Pradesh Board of Intermediate Education, HYDERABAD-500002.	02
3.	Andhra Pradesh Board of Secondary Education, HYDERABAD-570001.	03
4.	Assam Higher Secondary Education Council, GUWAHATI-781021.	04
5.	Board of Secondary Education Asam, GUWAHATI-781021.	05
6.	Bihar Intermediate Education Council Patna-800001.	06
7.	Bihar School Examination Board, PATNA-800017.	07
8.	Central Board of Secondary Education, DELHI-110092.	08
9.	Council for the Indian School Certificate Examination, NEW DELHI-110019.	09
10.	Goa Board of Secondary Education, GOA-403521.	10
11.	Haryana Board of School Education, BHIW ANI-125021.	11
12.	H.P. Board of School Education, DHARMSALA-176213.	12
13.	J. & K. State Board School Education, SRINAGAR-190005 / JAMMU-180005.	13
14.	Karnataka Board of Pre-University Education, BANGALORE-560001.	14
15.	Karnataka Secondary Education Examination Board, BANGALORE-560003.	15
16.	Kerala Board of Public Examination, THIRUVANTHAPURAM-695012.	16
17.	M.S. Board of Secondary & Higher Sec. Education, PUNE-411005.	17
18.	Board of Secondary Education, Madhyapradesh BHOPAL-460011.	18
19.	Board of Secondary Education, Manipur IMPHAL-795001	19
20.	Council of Higher Secondary Education, Manipur IMPHAL-795001	20
21.	Meghalaya Board of School Education, TURA-794102. MEGHALAYA.	21
22.	Mizhoram Board of School Education, AIZAW L-796012.	22
23.	Nagaland Board of School Education KOHIMA-797001	23
24.	Council of Higher Secondary Education, Orissa BHUVANESWAR-751013.	24
25.	Board of Secondary Education, Orissa CUTTACK-753001.	25
26.	Punjab School Education Board, MOHALI-160059.	26
27.	Board of Secondary Education, Rajasthan AJMER-305001.	27
28.	Tamil Nadu State Board of School Examination, CHENNAI-600006.	28
29.	Tamil Nadu Board of Higher Secondary Examination CHENNAI-600006.	29
30.	Tripura Board of Secondary Education, TRIPURA W EST-799006. AGARTALA.	30
31.	U.P. Board of High School and Intermediate Education, ALLAHABAD-211001.	31
32.	W.B. Board of Secondary Education, CALCUTTA-700016.	32
33.	W.B. Council of Hr. Sec. Education, CALCUTTA-700091	33
34.	National Institute of Open Schlooling, NEW DELHI-110048.	34
35.	M.P. State Open School, Board of Sec. Education, Campus, BHOPAL	35
36.	Rabindra Mukta Vidyalay, West Bengal State Open School, KOLKATTA-700081.	36
37.	Chhatisgadha Board of Sec. Education RAIPUR-492001.	37
38.	Uttranchal Shiksha Evm Praiksha Parishad, NAINITAL-263001.	38
39.	Jharkhand Academic Council, RANCHI-834003.	39
40.	State Examination Board, Gandhinagar	40
41.	Other Board	41
42.	Out of India.	42

Appendix-4							
Requisition	letter	if	online	Registyation	is	not	done



	Name	of	the	Candidate	
				Address	
_	 				
					Phone No. with STD
					Mobile
					Date

To, Assistant Secretary, GUJCET Cell, Guj. Sec. and Hr. Sec. Edn. Board, Nr. Old Sachivalaya, Sector-10-B, Gandhinagar-382010

Application Number

Subject : Regarding online Registration for Gujarat Common Entrance Test-2014. Sir,

With reference to the above I w	rish to in	form you	that I		
	have	passed	HSC Science	Stream in	the
year/have appeared for HS	C Science	e Stram in	the year 2014. M	y SID No. is	·
I have applied for online registration	on on N	Jo		My So	hool
		No			

for online registration/the proof of which is attached herewith, but since it has not been registered on the board website, I request your goodself to kindly consider the enclosures and accept my application form.

Yours faithfully,

Candidate's Signature

#### Enclosures :-

- (1) Xerox Copy of download application
- (2) Passport Size Photograph.

Appendix-5 Application for correction in the Appli	cation/Registration Form GUJCET 2014
Name of the	Candidate
	Address
Application Number	Phone No. with STD Mobile Date
To, Assistant Secretary, GUJCET Cell, Guj. Sec. and Hr. Sec. Edn. Board, Nr. Old Sachivalaya, Sector-10-B, Gandhinagar-382010	
Respected Sir,	
Subject : Corrections to be made in Entrance Test-2014.	the Application form for Gujarat Common
With respect to the above I wish to info have year/shall appear in the Board H I have applied for Gujcet through Index No. be made in the form obtained through Board V necessary corrections.	ve    passed    HSC    Science    Stream    in    the      Exam    March    2014,    SID    No.
Application Column No	
Error	Correction
<b>Note :</b> Xerox copy of my application is attache Please make necessary corrections.	ed herewith. The errors are underlined in red. Yours faithfully,

Candidate's Sign.

## Enclosures :-

- (1) Xerox copy of downloaded application form.
- (2) 2 Passport Size Photographs
- (3) Xerox copy of corrections to be made in Receipt.

K

GUJ/		UJARAT COMMON	HINAGAR	-2014	Candidate Photograph
Name of the Cadidate					
Seat No.	Centre	No.	Centre Name		
Application Form	n No. Me	dium	S	chool Index No.	
Block No.		Examination Date & Time		Details of Te OMR Ans	the second se
		Jais & Jine	Test Booklet No.	Test Booklet Code	Answer Sheet No. On Barcode Stücker
(1) For receipt of Test Booklet & OMR Answer	Candidate's Signature	s Bir	(2) For handing over of OMR Answer Sheet	Candidate's Signature	
Sheet by the Candidate	Block Supervisor's Signature		to the Block Supervisor	Block Supervisor Signature	S
the Examinat Building					

K

PHYSICS	, CHEMISTRY & BIOLOGY	DATE : 08-05-2014
SR. NO.	PROGRAMME	TIME
(1)	Entry in the Exmination Hall	10.30 AM
(2)	Checking & Signing of Hall Ticket & Attendance Sheet	10.30 AM to 10.45 AM
(3)	Distribution of Test Booklets & Answer Sheets	10.45 AM
(4)	Filling up Details on Test Booklets & Answer Sheets	10.50 AM to 10.55 AM
(5)	Opening the Seal of Test Booklet	10.55 AM to 10.59 AM
(6)	Test Commences	11.00 AM
(7)	Final Entry in the Examination Hall	11.00 AM
(8)	Test Concludes	14.00 Noon
(9)	Sticking Khakhi Sticker on Answer Sheets & Submission	14.01 PM to 14.05 PM

# IMPORTANT INSTRUCTIONS FOR ADMISSION CARD FOR GUJCET 2014 EXAMINATION

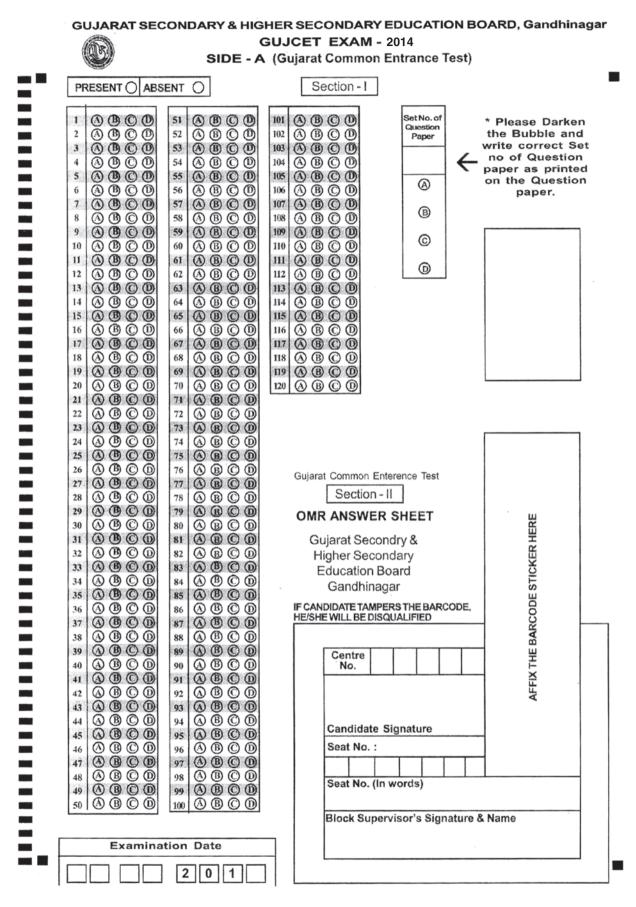
- (1) In case of mistake in spelling of the Name, Father's/Husband's Name, Surname in the Admission Card, the Cadidate may correct by himself and send a xerox copy alongwith attested Application form & SSC passing certificate to the 'GUJCET CELL' Gujarst Secondary & Higher Secondary Education Board, Gandhinagar.
- (2) In case of mistake in Centre or Medium, the Candidate may contact, in person to 'GUJCET CELL' Gujarat Secondary & Higher Secondary Education Board, Gandhinagar alongwith xerox copy of attested Application form of GUJCET Examination 2014.
- (3) In case of any discrepancy is found in the Photograph printed on theAdmission Card the procedure mentioned in above instruction No.2 should be followed with 2 passport size photographs.

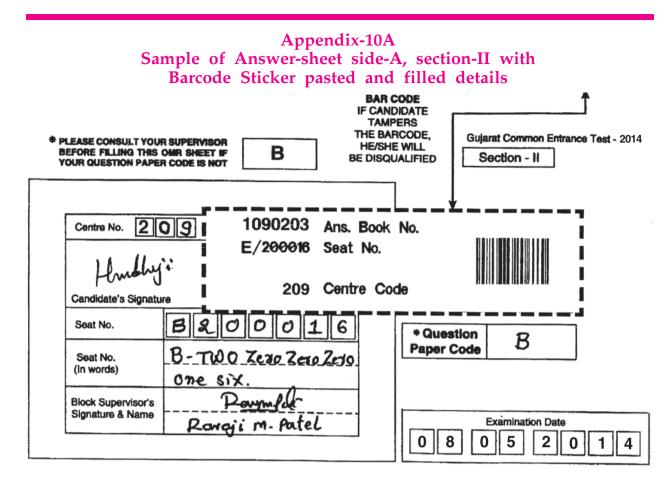
(B)	
Carl and	

#### GUJARAT SECONDARY AND HIGHER SECONDARY EDUCATION BOARD, GANDHINAGAR GUJCET **GUJARAT COMMON ENTRANCE TEST - 2014** 2014 **ATTENDANCE SHEET (PATRAK-01)**

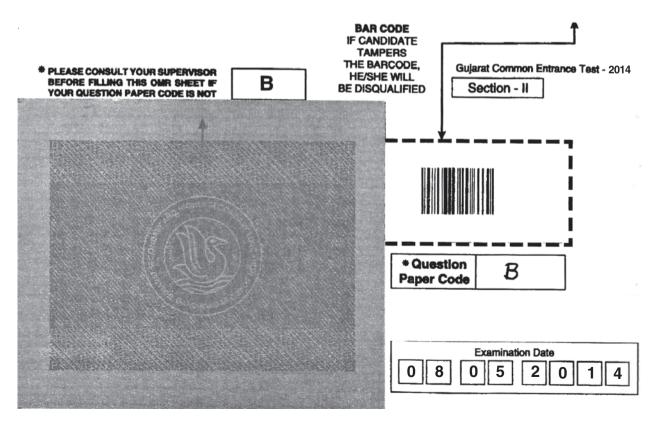


Centre No. & Name				Bloc	ck No.
Name of the Candidate					
Seat No.		Test Booklet No.		Answer Sheet No. In Barcode Sticker	
Application Form No.		Test Booklet Code		OMR Answer Sheet Code	
	Left Hand Thumb Impression of Candidate	(1) For receipt of Test Book Answer Sheet by the ca		(2) For handing	over of OMR Answer Block Supervisor
		Candidate's Signature	-	Candidate's Signa	ature
		Block Supervisor's Signatur	e 🔻	Block Supervisor	's Signature
Name of the Candidate	1		• .		
Seat No.		Test Booklet No.		Answer Sheet No. In Barcode Sticker	12 N
Application Form No.		Test Booklet Code		OMR Answer Sheet Code	
	Left Hand Thumb Impression of	(1) For receipt of Test Book Answer Sheet by the ca		(2) For handing	over of OMR Answer Block Supervisor
	Candidate 🗸	Candidate's Signature		Candidate's Signature	
		Block Supervisor's Signature		Block Supervisor's Signature	
a start of the		and the second		() Anglad Balance in and in a	
Name of the Candidate	<u></u>				
Seat No.	*	Test Booklet No.		Answer Sheet No. On Barcode Sticker	
Application Form No.	ter al contrata de la	Test Booklet Code		OMR Answer Sheet Code	ويراجع المراهد وأ
	Left Hand Thumb Impression of	(1) For receipt of Test Book Answer Sheet by the ca		(2) For handing over of OMR Answer Sheet to the Block Supervisor	
aller	Candidate 🔶	Candidate's Signature		Candidate's Sign	ature 🗸 🔨
		Block Supervisor's Signature		Block Supervisor's Signature	
Name of the Candidate					
Seat No.				Answer Sheet No. In Barcode Sticker	
Application Form No.		Test Booklet Code		OMR Answer Sheet Code	
	Left Hand Thumb Impression of Candidate	(1) For receipt of Test Bool Answer Sheet by the c		(2) For handing	over of OMR Answer Block Supervisor
		Candidate's Signature	$\mathbf{\nabla}$	Candidate's Sign	nature 🔨
	- 1 - 1	Block Supervisor's Signatur	re 🔻	Block Supervisor	rs Signature





# Appendix-10B To paste Khakhi Sticker after the Exam





# Various Types of Misconducts of the Candidates observed during Examination

- 1. The candidate not following the instructions issued by the Board I Controller I Coordinator or Supervisor.
- 2. The Candidate sends any messages in way of talking or signaling to other candidate in Examination Hall even after giving warning.
- 3. During the course of examination the candidate possess subject related material such as handwritten slip, notes, guide, text-book, map or any other unauthenticated literature etc.
- 4. The candidate observed found along with subject material like written notes I slips besides I under his bench or near by his seat.
- 5. The candidate throws out Question Paper Booklet or Answer Sheet from the Examination Hall.
- 6. The candidate tear off the Answer Sheet or encourages others for doing un fairness.
- 7. The candidate takes permission (any legimate reason) to go out side from the Examination Hall and meet the unauthorized person.
- 8. The candidate carry out the Answer Sheet from Examination Hall.
- 9. The candidate carries away Main Answer Book with him without handing over to Hall Supervisor after completion of the Examination.
- 10. The candidate gives the Answer Book to other candidate or holds Answer Book in such a manner in which his nearby students may read it or exchange it with others.
- 11. The candidate who forcefully pulls acquires any material belongs to other candidate in the Examination Hall.
- 12. Candidate found I caught copying in the Examination Hall.
- 13. The candidate brings in the Examination Hall Answer Book written answers from the outside of the Examination Hall or some body assists him for doing so.
- 14. Proved I found the Dummy candidate during Examination in place of original candidate.
- 15. The candidate misbehaves at Examination center.
- 16. The Candidate carries dangerous weapon I instrument with intension of quarreling I criminal offence at the Examination center.
- 17. The candidate creates his own identity by doing marking I writes with different ink in Answer Book.
- 18. The candidate writes abuse language or unfair writing in Answer Book.
- 19. The candidates are involved in the mass copying in the Examination hall.
- 20. The candidate tries to pull out the Barcode Sticker I tries to get Barcode details I gives the Barcode details to others or damages the Barcodes which is sticked I printed on Answer Book.
- 21. The offence is to be registered on the basis of statement of the Representative of the Board for serious irregularities and unfairness at an individual Examination Centre.
- 22. The Brown sticker must be affixed where the Barcode sticker at its designated place on the Answer Book and particulars written by candidate should covered completely.
- 23. The attitude of candidatemay be treated as misbehavior in the opinion of Examination Committee.

Appendix-12 Application to get the Duplicate marl GUJCET-2014, Examinat	
Name of the Candidate	
	3
GUJCET Seat No.	Phone No. with STD
	Mobile
	Date
То,	
Assistant Secretary,	
GUJCET Cell,	
Guj. Sec. and Hr. Sec. Edn. Board,	
Nr. Old Sachivalaya, Sector-10-B,	
Gandhinagar-382010	
Subject : To get the Duplicate Marksheet of (	GUJCET-2014 Examination.
Sir,	
With reference to the above mentioned subject, I	/
have appeared for the GUJCET-2014 examination and go	t the result. I have lost my original
marksheet. So I request you to provide me the duplica	, ,
Seat No Year of Examir	nation
Centre No School Index	No
Duplicate Marksheet Fee Rs. 200/- Details DD Date _	Receipt No
Bank's Name For Rs.	Date

Yours faithfully,

Applicant's Sign.

#### Enclosures:-

- (1) Xerox copy of Admit Card.
- (2) Xerox copy of Marksheet.

K

Appendix-13 Application to obtain Xerox copy	of GUJCET-2014 GUJCET 2014
Answersheet.	
	date
Add	lress
GUJCET	
Seat No.	Phone No. with STD
	Mobile
	Date
To,	
Assistant Secretary,	
GUJCET Cell,	
Guj. Sec. and Hr. Sec. Edn. Board, Nr. Old Sachivalaya, Sector-10-B,	
Gandhinagar-382010	
Subject : Application to obtain Xerox copy of Test-2014 Answersheet.	of Gujarat Common Entrance
With reference to the above, I	wish to inform you that
I have appeared for the Gujcet Exam-2014 with Seat 1	
I wish to obtain the Xerox Copy of the Answershee	
the Xerox Copy of the Answersheet through registe	
Gujcet Seat No Centre No	School Index No
Fees Details if paid Rs. 200/- DD No.	
Name of	
for Rs	
Date :	
Duit	Yours faithfully,

Applicant's Sign.

# Enclosures:-

- (1)
- Xerox copy of Admit Card. Xerox copy of Marksheet. (2)

# **GUJCET - 2014 Application Forms Distribution/Collection Centre**

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# **DISTRIBUTION ARRANGEMENT**

Information booklet & Pin No. (User ID - Password) will be available on 31/03/2014 from 11-00 hours to 17-00 hours at the Distribution Centre No. 1 to 36 as stated below On-line Registration for GUJCET-2014 is open from 31/03/2014 to 15/04/2014 on website as under www.gseb.org

Centre No.	School Name & Address	District Name
1.	Diwan Ballubhai High School, Opp. Tagore Hall, Paldi, Ahmedabad	Ahmedabad (City)
2.	Shreeji Vidhyalaya, Near Ghanti Stand, Bapunagar, Ahmedabad	Ahmedabad (City)
3.	Govt, Girls High School, Raikhad, Ahmedabad	Ahmedabad (City)
4.	C. N. Vidhyalaya, Ambawadi, Ahmedabad	Ahmedabad (City)
5.	Pranam Vidyalaya, Near Sapana Cinema, Sarkhej, Ahmedabad	Ahmedabad (Rural)
6.	District Education Office, Multi-storied Building, Sector 11, Gandhinagar	Gandhinagar
7.	The New Progressive High School, Mehsana	Mehsana
8.	V.K. Bhula High School, Patan	Patan
9.	Vividhlaxi Vidhyamandir, Palanpur	Banaskantha
10.	Himmat High School, Station Road, Himatnagar	Sabarkantha
11.	Basundiwala Public High School, Near Ifkowala Hall, Opp. Paras Cinema, Nadiad.	Kheda
12.	District Education Office, Sevasadan, Anand.	Anand
13.	Navjeevan High School, Bagikhana, Palace road, Vadodara.	Vadodara
14.	Sharada Mandir High School, Salatvada, Vadodara.	Vadodara
15.	M.K. High School, Alkapuri, Vadodara.	Vadodara
16.	New Heaven Vidhyalaya, Vaghodiya Road, Vadodara.	Vadodara
17.	District Education Office, Near Sevashram, Hostel Ground, Bharuch.	Bharuch
18.	Govt, Higher Secondary School, Darbar Road, Rajpipala.	Narmada
19.	District Education Office, Valsad.	Valsad
		Dadranagar
		Haveli & Daman
20.	Nagarpalika High School, Navsari.	Navsari
21.	Sir V.D.T. Girls High School, Athava lines, Sural.	Surat
22.	Smt. Lilaba Kanya Vidyalaya, Laldarwaja, Near Station.	Surat
		Contd. on Title-4

Centre No.	School Name & Address	District Name
23.	Telang High School, Godhara.	Panchmahal
24.	District Education Office, Dahod.	Dahod
25.	District Education Office, Aahwa.	Dang
26.	Karansinhji High School, Karanpara, Rajkot.	Rajkot
27.	G.T. Sheth Girls High School, Trikon Baug, Rajkot.	Rajkot
28.	Nandkuvarba Kshatriya Kanya Vidhyalaya, Bhavnagar.	Bhavnagar
29.	Navanagar High School, Jamnagar.	Jamnagar
30.	Sheth N.T.M. High School, Near Mela ground, Vadipura, Surendranagar.	Surendranagar
31.	Kamani Forward High School, Lathi Road, Amreli	Amreli
32.	New Best High School, Near Railway Station, Joshipura, Junagadh.	Junagadh & Div
33.	M.P. Girls Govt. High School, Veraval.	Junagadh & Div
34.	Bhavsinhji High School, Porbandar.	Porbandar
35.	Shri fndrabai Girls High School, Nr. Bus Stand, Bhuj	Kutch
36.	District Education Office, Vyary, Dist. Tapi	Тарі
37.	V. C. Technical High School, Morbi	Morbi
38.	Government Secondary School, Station Road, Botad	Botad
39.	S. L. Patel Saraswati High School, Malpur Road, Modasa	Modasa
40.	Panchshil High School, Lunawada	Lunawada
41.	S. F. High School, Chhota Udepur	Chhota Udepur
42.	G. V. J. High School, Jamkhambhaliya	Jamkhambhaliya

# **DISTRIBUTION ARRANGEMENT**

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Information booklet & PIN No. (User ID - Password) will be available from 31/03/2014 to 15/04/2014 (except holidays) during 11-00 hours to 17-00 hours at the distribution Centre No. 43 to 46 as stated below

Centre No.	School Name & Address	District Name
43.	T. & T. V. High School, Nanpura, Surat.	Surat
44.	S. G. Dholakiya High School, 1, Manhar Plot, Near Bus Stop,	Rajkot
45.	Gujarat Secondary and Higher Secondary Education Board, Sector 10/B, Near Old Sachivalaya. Gandhinagar	Gandhinagar
46.	Gujarat Secondary and Higher Secondary Education Board, Maratha Mahollo, Near Pumping Station, Ravpura.	Vadodara