AP EAPCET 2024

(Engineering, Agriculture and Pharmacy Common Entrance Test- 2024)
Conducted by
JNT University Kakinada
on behalf of
Andhra Pradesh State Council for Higher Education (APSCHE)

Dates of Examination: 18-05-2024 to 23-05-2024
(9.00 A.M. to 12.00 Noon & 2.30 P.M to 5.30 P.M)
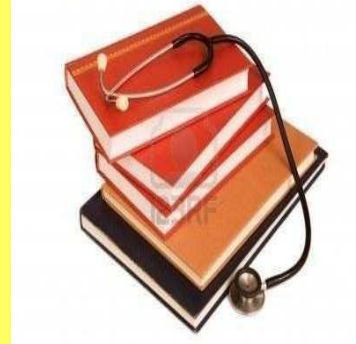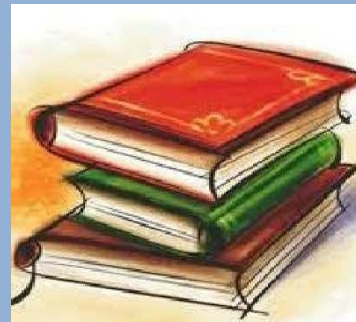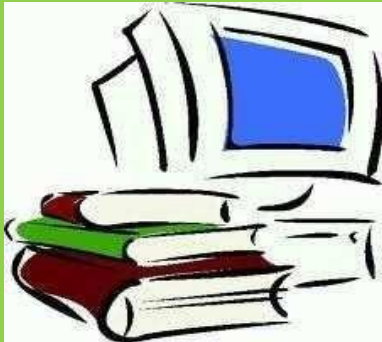
INSTRUCTION BOOKLET
ENGINEERING

ENGINEERING, AGRICULTURE & PHARMACY COMMON ENTRANCE TEST

JNT University Kakinada
Kakinada

Andhra Pradesh State Council of Higher Education
Tadepalli, Guntur District.

ENGINEERING

ENGINEERING, AGRICULTURE & PHARMACY COMMON ENTRANCE TEST
(being conducted by JNTUK on behalf of APSCHE)

AP EAPCET-2024

FOR ENTRANCE TEST RELATING TO PROFESSIONAL COURSES IN

a) **Engineering, Bio-Technology, B.Tech. (Dairy Technology), B.Tech.(Agr.Engg.), B.Tech. (Food Science and Technology)**
b) **B.Sc. (Ag)/ B.Sc. (Hort)/ B.V.Sc. & A.H/B.F.Sc**
c) **B. Pharmacy, Pharm.D**

Note: Information about the Entrance test is also available on the Website
https://cets.apsche.ap.gov.in/

LAST DATES FOR SUBMISSION OF ONLINE APPLICATION	
WITHOUT LATE FEE	**15-04-2024**
WITH LATE FEE Rs.500/-	**30-04-2024**
WITH LATE FEE Rs.1000/-	**05-05-2024**
WITH LATE FEE Rs.5000/-	**10-05-2024**
WITH LATE FEE Rs. 10000/-	**12-05-2024**

Address for Correspondence:

CONVENER, AP EAPCET – 2024,

GROUND FLOOR, ADMINISTRATIVE BUILDING

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

KAKINADA – 533003, ANDHRA PRADESH

Contact No: 0884-2359599, 0884-2342499
Email ID: helpdeskapeapcet@apsche.org

AP EAPCET - 2024 (ENGINEERING)

A Common Entrance Test designated as "Engineering, Agriculture & Pharmacy Common Entrance Test" (AP EAPCET – 2024) will be conducted by JNT University Kakinada, Kakinada for the academic year 2024-2025 for admission into the First Year of Professional Courses i.e **(i) Engineering, Bio-Technology, B.Tech. (Dairy Technology), B.Tech. (Agr. Engg.), B.Tech. (Food Science and Technology), (ii) B.Sc. (Ag)/ B.Sc. (Hort)/ B.V.Sc. & A.H/B.F.Sc & (iii) B. Pharmacy, Pharm. D.**

1) PARTICULARS OF AP EAPCET – 2024

❖ The Test will be conducted from **18-05-2024 to 23-05-2024 in two sessions every day i.e. 9.00 A.M. to 12.00 P.M.** and **2.30 P.M to 5.30 P.M** through Online mode only.

❖ The question paper consists of a total of 160 questions comprising 80 questions in Mathematics, 40 questions in Physics, and 40 questions in Chemistry.

❖ All questions are of objective type (multiple choice) only and each question carries one mark. The syllabus in Mathematics, Physics, and Chemistry is furnished in Annexure-I. The model questions are given in Annexure-II.

❖ A sample/mock test will be available on the https://cets.apsche.ap.gov.in website for practice purposes and to give the candidate a look and feel of the On-Line (Computer Based) Examination.

2) ELIGIBILITY TO APPEAR FOR AP EAPCET – 2024

Candidates satisfying the following requirements shall be eligible to appear for AP EAPCET-2024:

a. Candidates should be of Indian Nationality or Persons of Indian Origin (PIO) / Overseas Citizen of India (OCI) Card Holders.

b. Candidates should belong to the state of Andhra Pradesh / Telangana. The candidates should satisfy Local / Non-Local status requirements as laid down in the Andhra Pradesh / Telangana Educational Institutions (Regulation of Admission) order, 1974 as subsequently amended (See Annexure III).

c. Candidate should have obtained at least 45% marks (40% in case of candidate belonging to reserved category) in the subjects specified taken together in the qualifying examination.

d. For Engineering, B.Pharmacy (M.P.C), Pharm.D, B.Tech. (Dairy Technology), B.Tech. (Agr. Engineering), B.Tech. [Food Science and

Technology (FS & T)], B.Sc. [Agriculture Engg] courses:

(i) Candidates should have passed Intermediate Examination (10+2 pattern) with Mathematics, Physics, and Chemistry as options or related vocational courses in the fields of Engineering and Technology, conducted by the Board of Intermediate Education, Andhra Pradesh / Telangana, along with bridge course or courses conducted by it for candidates enrolled from the academic year 2000 onwards, or any other examination recognized as equivalent thereto by the Board of Intermediate Education, Andhra Pradesh / Telangana. However, the candidates who have appeared for the Final Year Intermediate Examination (10+2 Pattern) and who are awaiting their results may also apply for APEAPCET 2024, but their ranks obtained in APEAPCET 2024 will be valid only if they pass the Intermediate Examination.

<div align="center">OR</div>

(ii) Candidates should have passed the Diploma examination in Engineering conducted by the State Board of Technical Education and Training, Andhra Pradesh / Telangana or any other examination recognized as equivalent there to by the State Board of Technical Education and Training, Andhra Pradesh / Telangana. However, the candidates who have appeared for the Diploma examination in Engineering and who are awaiting their results may also apply for APEAPCET 2024, but their ranks obtained in APEAPCET 2024 will be valid only if they pass the Diploma examination in Engineering.

(iii) a) In the case of Engineering, Pharmacy courses, candidates should have completed 16 years of age as of 31st December of the year of admission (2024). There is no upper age limit.

b) In the case of B.Tech. (Dairy Technology), B.Tech. (Agr. Engineering), B.Tech. (FS & T) and B.Sc. (Agr. Engg), candidates should have completed 17 years of age as of 31st December of the year of admission (2024) and an upper age limit is 22 years for all the candidates and 25 years in respect of Scheduled Caste and Scheduled Tribe candidates as on 31st December of the year of Admissions (2024).

e. (i) For Pharm. D course candidates should have passed the Intermediate Examination (10+2 pattern) with Physics, Chemistry, and Mathematics as options conducted by the Board of Intermediate Education, Andhra Pradesh / Telangana, or any other examination recognized by the Board of Intermediate Education, Andhra Pradesh / Telangana, or equivalent. However, the candidates who have appeared for

the Final Year Intermediate Examination (10+2 Pattern) and who are awaiting their results may also apply for AP EAPCET 2024, but their ranks obtained in AP EAPCET 2024 will be valid only if they pass the Intermediate Examination.

(iii) The candidates should have completed 17 years of age as of 31st December of the year of admission (2024) to the above course.

3) **GENERAL INFORMATION / INSTRUCTIONS:**

a) **The Convener, AP EAPCET – 2024 reserves the right to reject the application of the candidate at any stage, if:**

 (I) The Online Application Form is incomplete.

 (II) The candidate fails to satisfy the eligibility conditions.

 (III) Any false or incorrect information is furnished.

 (IV) The Online Application Form is submitted after the due date.

 (V) No correspondence will be entertained in this regard.

b) **The Convener is not responsible for non-receipt of application by the notified date and time for any reason**.

4) **MEDIUM OF ENTRANCE TEST:**
The question paper contains questions in the "English" and "Telugu" medium only. Candidates, who have studied the qualifying examination in Urdu medium and wish to avail assistance for translating the questions into **Urdu, will be allotted a Test Centre at Kurnool only**. **In case of ambiguity in the Telugu Question, the Question given in English shall be taken as final.**

5) **REGISTRATION FEE:**

Payment of Registration Fee for submission of Online Application Form is the first step and the Registration Fee is Rs. 600/- for students belonging to the open category (for SC/ST Candidates Rs 500/- and for BC Candidates Rs 550/-) which has to be paid through any kind of Online Payment Modes (Credit Card/ Debit Card/Net Banking/ AP Online / TS Online etc) from any Recognized Bank.

6) **SAME CENTRE FOR CANDIDATES APPEARING FOR BOTH ENGINEERING AND AGRICULTURE & PHARMACY:** Candidates of E – Category who are eligible and desirous of taking the test in AP- Category, in addition to the test for E - Category should **select the option Both (E & AP Category) together,** during the submission of the Online Application Form, so that same Test Centre can be allotted to them for both the tests. If this instruction is not followed, the candidate may be allotted different Test Centres for E & AP category tests, and Convener, AP EAPCET- 2024 is not responsible for the allotment of different centers.

7) REGIONAL CENTERS

District	RC1	RC2	RC3
Anakapalle	Anakapalle		
Anantapur	Ananthapuramu	Gooty	Tadipatri
Annamayya	Madanapalle	Rayachoti	Rajampet
Bapatla	Bapatla	Chirala	
Chittoor	Chittoor	Palamner	
East Godavari	Rajahmundry		
Eluru	Eluru		
Guntur	Guntur		
Kakinada	Kakinada		
Konaseema	Amalapuram		
Krishna	Gudlavalleru	Machilipatnam	
Kurnool	Kurnool	Adoni	Yemmiganur
Nandyal	Nandyal		
NTR	Mylavaram	Tiruvuru	Vijayawada
Palnadu	Narasaraopeta		
Prakasam	Markapuram	Ongole	
Sri Potti Sriramulu Nellore	Kavali	Nellore	
Sri Sathya Sai	Puttaparthi		
Srikakulam	Srikakulam	Tekkali	
Tirupati	Puttur	Tirupati	Gudur
Visakhapatnam	Anandapuram	Gajuwaka	Visakhapatnam
Vizianagaram	Rajam	Bobbili	Vizianagaram
West Godavari	Tadepalligudem	Bhimavaram	Narasapuram
YSR Kadapa	Kadapa	Proddatur	
Hyderabad	LB Nagar	Secunderabad	

Note: 1. The Convener reserves the right to add or delete some online Test Centers from the list of Regional Centers notified.

2. The Convener reserves the right to allot the candidates to any online Test Centre other than that opted by the candidates.

3. Candidate has to submit not more than one application either for "E" or "AP" or "E&AP" category test. If any candidate submits more than one application for one category, the Convener reserves the right to reject all the applications or accept any one of them.

8. SUBMISSION OF ONLINE APPLICATION FOR AP EAPCET – 2024

Applications should be submitted through Online mode only.

The following information must be kept ready for filling the details during Online submission:

a. Hall ticket Number of Qualifying Examination
b. Hall ticket Number of S.S.C. or equivalent
c. Date of Birth
d. Caste Certificate in case of SC/ST/BC candidates
e. Aadhar Number
f. PH, NCC, Sports etc.
g. Income Certificate (Upto One Lakh or Up to Two Lakhs or More than Two Lakhs(Rupees))
h. Ration Card
i. Study or Residence or relevant certificate for proof of local status (last 12 years)

Online submission:

For Online submission, visit the website **https://cets.apsche.ap.gov.in.** A candidate has to pay Rs.600/- as Registration Fee (for SC/ST Candidates Rs 500/- and for BC Candidates Rs 550/-) and late fee (if applicable) by opting any kind of Online Payment Modes (Credit Card/ Debit Card/Net Banking/ AP Online / TS Online etc) from any Recognized Bank. After filling out the Online Application Form with the required details, the candidate is required to verify all the details carefully and press Submit button. A filled in Online Application Form will be generated which contains the Registration Number along with filled in details. The candidate is required to take a printout of the Filled In Online Application Form and it is to be submitted to the Invigilator during the examination **after affixing a recent color photograph duly attested by the Gazetted Officer or Principal of the College where the candidate has studied qualifying examination.** The candidate should use the Registration Number for future correspondence.

Mere appearance and qualifying at AP EAPCET-2024 does not confer any right for admission into professional courses. The candidate has to fulfill the eligibility criteria laid down in the relevant G.O at the time of admission.

9. QUALIFYING MARKS FOR AP EAPCET – 2024

The qualifying percentage of marks for the AP EAPCET-2024 is 25% of the maximum marks considered for the ranking. However, for candidates belonging to Scheduled Caste and Scheduled Tribe, no minimum qualifying mark is prescribed. But their admission will be limited to the extent of seats reserved for such categories (vide G.O.Ms. No. 179, LEN&TE, dated 16.06.1986).

10. AP EAPCET-2024 RESULTS

1. **Evaluation:** Every care will be taken to avoid errors in the evaluation, checking, scrutiny, tabulation, normalization, and ranking.

2. **Ranking:**

   a. Candidates shall be ranked based on the EAPCET normalized marks (75% weightage) and 10+2 (25% weightage) in the order of merit as explained in Annexure-IV and Annexure-V.

   b. The rank obtained in AP EAPCET-2024 is valid for admission to the courses mentioned in the application form for the academic year 2024-2025 only.

   c. The rank card shall be downloaded from the website **https://cets.apsche.ap.gov.in**

   d. Rank obtained with the benefit of relaxation of the minimum qualifying marks at AP EAPCET-2024 by any candidate claiming as SC/ST Category will be canceled in case the claim is found to be invalid at the time of admission to any course of study at any participating University / Institution.

11. The candidates should preserve the Filled In Online Application Form, the Hall Ticket and the Rank Card to produce them when called for verification.

12. Any malpractice in AP EAPCET-2024 will be dealt with as per rules in force vide G.O.Ms.No: 114, Edn / (IE) Dt: 13th May 1997 for the CET.

13. In any litigation concerning AP EAPCET-2024 Test, Convener is the person to sue and be sued. The Convener (Examination), AP EAPCET – 2024 is not responsible for the allotment of seats at the time of admissions. The Commissioner of Technical Education, Andhra Pradesh is the Convener for the Admissions.

14. Any litigation concerning AP EAPCET-2024 shall be subject to the jurisdiction of the A.P. High Court, Amaravathi only.

15. HALL TICKET

The candidate should download the Hall Ticket from website **https://cets.apsche.ap.gov.in**.

16. COUNSELLING AND ALLOTMENT OF SEATS

The list of institutions for allotment of candidates with intake in each discipline and category, as per reservations through AP EAPCET – 2024 would be released in the **Information Booklet** for Counseling in due course and the same information would also be released on the website **https://cets.apsche.ap.gov.in**.

IMPORTANT INSTRUCTIONS TO CANDIDATES

1. **Material to be brought on the date of examination**

   Hall Ticket along with Filled in Online Application Form with duly affixed recent color photograph attested by Gazetted Officer (or) Principal of the College where the candidate has studied the qualifying examination. However, the Signature of the candidate and Left Hand Thumb impression in the presence of the Invigilator are to be captured in the respective places provided in the Filled in Online Application form.

2. **Other important instructions**

   a. Hall ticket issued to the candidate is an important document. Candidates are required to preserve it carefully.

   b. Hall ticket is not transferable. Any tampering of Hall Ticket will automatically lead to the disqualification of the candidate

   c. Candidates shall arrive at the online examination center 2 hours before commencement of the examination. This will enable the candidate to familiarize himself/herself with the online examination process.

   d. A candidate is <u>not allowed even late by One Minute</u> from the commencement of the online examination.

   e. The candidate does not have the option of choosing a specific date/session to appear for the AP EAPCET- 2024 entrance examination. This information is known to him/her only after downloading Hall Ticket. For any reason, if the candidate fails to appear in the given slot, he/she is treated as absent.

   f. Candidates are required to bring the following to the online examination center:
   i) Hall Ticket, ii) Filled in Online Application Form, iii) A good Ball Point Pen (for rough work, working sheets will be provided by the Test Centre) and iv) **Attested copy** of Caste certificate **(in case of SC/ST category candidates only)**.

   g. Candidates are not allowed to carry any textual material, Calculators, DocuPen, Slide Rules, Log Tables, Electronic Watches with facilities of calculator, printed or written material, bits of papers, mobile phone, pager or any other device, except the Hall Ticket, document as required under point no. 2.(f) inside the Examination Room/Hall. If any candidate is in possession of any of the above items, his/her candidature will be treated as an unfair means and his/her current examination will be canceled & he/she will also be debarred for future examination(s) & the equipment will be seized.

GUIDELINES TO CANDIDATES

1. Please check the Hall ticket carefully for your Name, Date of Birth, Gender, Category, Test Centre Name, Date, and Time of examination.

2. Candidates are advised to reach the venue at least 2 hours before the examination to complete the frisking and registration formalities well before the time. The registration desk will be closed 05 minutes before the examination.

3. The candidate must show, on demand, the Hall Ticket for admission in the examination room/hall. A candidate who does not possess the Hall Ticket issued by the Convener, AP EAPCET-2024, shall not be permitted for the examination under any circumstances by the Centre Superintendent.

4. No candidate, under any circumstances, will be allowed to enter the Examination Centre after the commencement of the examination.

5. A seat indicating the Hall Ticket number will be allocated to each candidate. Candidates should find out and occupy their allotted seats only. Any candidate found to have changed room or the seat on his/her own other than allotted, his/her candidature shall be canceled and no plea would be accepted for it.

6. The candidate should ensure that the question paper is available on the computer in English and Telugu languages only.

7. No Candidate will be allowed to carry any baggage inside the Examination Centre. The Convener, AP EAPCET-2024 will not be responsible for any belongings stolen or lost at the premises.

8. Smoking and eating are strictly prohibited in the examination room.

9. Tea, coffee, cool drinks, or snacks are not allowed to be taken into the examination rooms during examination hours.

10. Approach the Centre Superintendent/Invigilator in the room for any technical assistance, first aid emergency, or any other information during the examination.

11. No candidate, without the special permission of the Centre Superintendent or the Invigilator concerned, will leave his/her seat or Examination Room until the full duration of the Examination. Candidates must follow the instructions strictly as instructed by the Centre Superintendent/Invigilators.

12. For any queries or issues regarding computer-based examination, the candidates may contact helpline numbers which will be available on the https://cets.apsche.ap.gov.in website.

INSTRUCTIONS FOR ONLINE (COMPUTER BASED) EXAMINATION

The On-Line (Computer Based) Examination will be conducted as per the schedule.

1. The test will start exactly at the time mentioned in the Hall Ticket and an announcement to this effect will be made by the invigilator.

2. The Entrance test is conducted for a duration of 3 hours and the question paper consists of a total of 160 questions comprising 80 questions in Mathematics, 40 questions in Physics, and 40 questions in Chemistry. All questions are having equal weightage.

3. There is only one correct response for each question out of four responses given.

4. There is no negative marking and No deduction from the total score will be made if no response is indicated for a question.

5. All calculations/writing work is to be done only in the rough sheet provided at the center and on completion of the test, candidates must hand over the rough sheets to the invigilator onduty in the Room/Hall. The candidates shall write their Hall Ticket number on the rough sheets used by them.

6. During the examination time, the invigilator will check the Hall ticket of the candidate to satisfy himself/herself about the identity of each candidate.

7. The candidates are governed by all Rules and Regulations of the Convener, EAPCET-2024 with regard to their conduct in the Examination Hall. All cases of unfair means will be dealt with as per rules.

8. The candidates must sign and give his/her Left Hand Thumb impression on the Attendance Sheet at the appropriate place.

The following Proforma I, II and III are to be submitted at the time of counseling to claim nativity, community and local status.

Serial No.   **FORM III**

S.C.   District Code :

S.T.   Emblem   Mandal Code:

B.C.   Village Code:

Certificate No.:

COMMUNITY, NATIVITY AND DATE OF BIRTH CERTIFICATE
(Integrated Community Certificate)

1. This is to Certify that Sri / Smt / Kum _____
Son / Daughter of Sri_____of village /Town
_____Mandal_____District of the state of Andhra Pradesh /
Telangana belongs to_____Community which was recognized as
SC/ST/BC under
The Constitution (Scheduled Caste) Order, 1950
The Constitution (Scheduled Tribes) Order, 1950
G.O.Ms.No.1793, Education, dated 25.09.1970 as amended from time to time BCs, SCs, STs
list (Modification) Order 1956, SCs and STs (Amendment) Act, 1976.

2. It is to certify that Sri / Smt / Kum_____is a native of _____
the District of Andhra Pradesh / Telangana

3. It is to certify that the date of birth of Sri / Smt / Kum_____is
Day_____Month_____Year_____(in words
_____)
as per the declaration given by his /her Father / Mother / Guardian and as entered in the
school records where he/she studied

                                        Signature

                                        Date

       (Seal)   **Name in Capital letters:**

                                        Designation:

Explanatory Note:
1) While mentioning the community, the competent Authority must mention the sub-caste (in
case of SCs) and Sub-Tribe or Sub- Group (in case of STs) as listed out in the SCs and STs
(Amendment) Act, 1976.

PROFORMA – II

RESIDENCE CERTIFICATE IN SUPPORT OF APPLICATION

1. It is hereby certified

a. That Sri/Smt / Kum_____ son/daughter of Sri / Smt._____a candidate for admission to the course appeared for the first time for the _____examination (being the minimum qualifying examination for admission to the course mentioned above) in_____(month)_ _____(year).

b. That in the 7 years, immediately preceding the commencement of the aforesaid examination he/she has resided in the following place/places falling within the area in respect of the AU/OU/SVU region (Tick appropriate one).

S.No.	Period	Village	Mandal	District
1				
2				
3				
4				
5				
6				
7				

2. The above candidate is, therefore, a local candidate in relation to the area specified in Paragraph 3(1)(2)(3) of the Andhra Pradesh Educational Institution (Regulation of Admissions) Order 1974 as amended.

Officer of the Revenue Department

(Issued by the competent authority of Revenue Dept.)

Date: (OFFICE SEAL)

PROFORMA – III

CERTIFICATES IN SUPPORT OF NON-LOCAL STATUS FOR E – CATEGORY

(A) Certificate to be furnished when the candidate has resided in the state for a period of 10 years (Read Instructions under 3(a) of Annexure (III) of Instruction Booklet of admission)

This is to certify that Mr./ Kum. _____

Son / Daughter of Sri. / Smt. _____

a candidate seeking admission into professional courses (Engineering stream & Agricultural and Pharmacy stream) through AP EAPCET 2024 for the Academic Year 2024-25 is a resident of _____(Place) in_____(District) of Andhra Pradesh / Telangana for a total period of 10 years from the year _____to_____excluding the periods of study outside the state.

Place: **Signature of the Competent**

Date: **Authority from Revenue Dept.**

Office Seal:

(B) Certificate to be furnished when either of the parents of the candidate has resided in the state for a period of 10 years. (Read Instructions under 3(b) of Annexure (III) of Instruction Booklet of admission)

This is to certify that Sri/Smt._____,

Father / Mother of _____

a candidate seeking admission into professional courses (Engineering stream & Agricultural and Pharmacy stream)   through AP EAPCET 2024 for the Academic Year 2024-25, is a resident of_ _____(Place) in_____(District) of Andhra Pradesh / Telangana for a total period of 10 years from the year _____to_____excluding the periods of study outside the state.

Place: **Signature of the Competent**

Date: **Authority from Revenue Dept.**

Office Seal:

(C) Certificate to be furnished when the parent/ spouse is an employee of the State or Central Government or Quasi-Government Organization.

(Read Instructions under 3(c) and 3(d) of Annexure (III) of Instruction Booklet of admission)

This is to certify that Sri/Smt. _____

Father / Mother of _____

a candidate seeking admission in to professional courses (Engineering stream & Agricultural and Pharmacy stream) through AP EAPCET 2024 for the   Academic   Year   2024-25,   is   presently employed   in   Andhra   Pradesh   State   in   the   Organization from_____till to-date. This Organization is a State / Central / Quasi Government Organization in the State of Andhra Pradesh / Telangana.

Place: **Signature of the Competent**

Date: **Authority from Revenue Dept.**

Office Seal:

ANNEXURE - I

AP EAPCET – 2024 SYLLABUS

NOTE:

❖ The details of the syllabus in which the exam will be conducted are furnished below for the convenience of students.

❖ The syllabus is applicable to students of both the current and previous batches of Intermediate Course, who desire to appear for AP EAPCET-2024.

SUBJECT: MATHEMATICS

ALGEBRA

a) **Functions**: Types of functions – Definitions - Inverse functions & Theorems - Domain, Range and Inverse.

b) **Mathematical Induction**: Principles of Mathematical Induction & Theorems – Applications of Mathematical Induction – Problems on divisibility.

c) **Matrices**: Types of matrices - Scalar multiple of a matrix and multiplication of matrices - Transpose of a matrix – Determinants - properties of determinants - Adjoint and Inverse of a matrix – Consistency and inconsistency of system of simultaneous equations - Rank of a matrix - Solution of simultaneous linear equations.

d) **Complex Numbers**: Complex number as an ordered pair of real numbers- fundamental operations - Representation of complex numbers in the form a+ib - Modulus and amplitude of complex numbers–Illustrations - Geometrical and Polar Representation of complex numbers in Argand plane-Argand diagram.

e) **De Moivre's Theorem**: De Moivre's theorem- Integral and Rational indices - n^{th} roots of unity-Geometrical Interpretations–Illustrations.

f) **Quadratic Expressions**: Quadratic expressions, equations in one variable - Sign of quadratic expressions – Change in signs – Maximum and minimum values - Quadratic Inequations.

g) **Theory of Equations**: The relation between the roots and coefficients in an equation - Solving an equations when two or more roots of it are connected by certain relation - Equation with real coefficients, occurrence of complex roots in conjugate pairs and its consequences, Transformation of equations- Reciprocal equations.

h) **Permutations and Combinations**: Fundamental Principle of counting – linear and circular permutations- Permutations of 'n' dissimilar things taken 'r' at a time - Permutations when repetitions allowed - Circular permutations - Permutations with constraint repetitions - Combinations-definitions, certain theorems.

i) **Binomial Theorem:** Binomial theorem for positive integral index, Binomial theorem for rational Index - Approximations using Binomial theorem

j) **Partial fractions**: Partial fractions of f(x)/g(x) when g(x) contains non –repeated linear factors - Partial fractions of f(x)/g(x) where both f(x) and g(x) are polynomials and when g(x) contains repeated and/or non-repeated linear factors - Partial fractions of f(x)/g(x) when g(x) contains irreducible factors.

TRIGONOMETRY

a) **Trigonometric Ratios upto Transformations**: Trigonometric ratios – Variation - Graphs and Periodicity of Trigonometric functions - Trigonometric ratios of Compound angles - Trigonometric ratios of multiple and sub- multiple angles - Transformations - Sum and Product rules.

b) **Trigonometric Equations**: General solutions of Trigonometric Equations – Simple Trigonometric Equations – Solutions.

c) **Inverse Trigonometric Functions**: To reduce a Trigonometric function into a bijective function – Graphs of Inverse Trigonometric functions – Properties of Inverse Trigonometric functions.

d) **Hyperbolic Functions**: Definition of Hyperbolic Function – Graphs - Definition of Inverse Hyperbolic Functions – Graphs - Addition formulae of Hyperbolic Functions.

e) **Properties of Triangles**: Relation between sides and angles of a Triangle - Sine, Cosine, Tangent and Projection rules- Half angle formulae and areas of a triangle – Incircle and Excircles of a Triangle.

VECTOR ALGEBRA

a) **Addition of Vectors**: Vectors as a triad of real numbers - Classification of vectors - Addition of vectors - Scalar multiplication - Angle between two non-zero vectors - Linear combination of vectors - Components of a vector in three dimensions - Vector equations of line and plane including their Cartesian equivalent forms.

b) **Product of Vectors**: Scalar or dot product of two vectors - Geometrical Interpretations - orthogonal projections - Properties of dot product - Expression of dot product in i, j, k system - Angle between two vectors - Geometrical Vector methods – Vector equations of plane in normal form-Angle between two planes- Vector product of two vectors and properties- Vector product in i, j, k system- Vector Areas – Scalar triple product – Vector equation of a plane – different forms, skew lines, shortest distance – plane, condition for coplanarity etc. – vector triple product – results.

MEASURES OF DISPERSION AND PROBABILITY

a) **Measures of Dispersion** - Range - Mean deviation - Variance and standard deviation of ungrouped/grouped data, coefficient of variation and analysis of frequency distributions with equal means but different variances.

b) **Probability**: Random experiments and events - Classical definition of probability, Axiomatic approach and addition theorem of probability - Independent and dependent events - conditional probability- multiplication theorem and Baye's theorem.

c) **Random Variables and Probability Distributions**: Random Variables - Theoretical discrete distributions – Binomial and Poisson Distributions.

COORDINATE GEOMETRY

a) **Locus**: Definition of locus –Illustrations-To find equations of locus-Problems connected to it.

b) **Transformation of Axes:** Transformation of Axes – Rules, derivations and illustrations – Rotation of Axes – Derivations – Illustrations.

c) **The Straight Line**: Revision of fundamental results - Straight line - Normal form – Illustrations - Straight line - Symmetric form - Straight line - Reduction into various forms - Intersection of two Straight Lines - Family of straight lines - Concurrent lines - Condition for Concurrent lines - Angle between two lines - Length of perpendicular from a point to a Line - Distance between two parallel lines - Concurrent lines - properties related to a triangle.

d) **Pair of Straight lines**: Equations of pair of lines passing through origin - angle between a pair of lines - Condition for perpendicular and coincident lines, bisectors of angles - Pair of bisectors of angles - Pair of lines - second degree general equation - Conditions for parallel lines - distance between them, Point of intersection of pair of lines - Homogenising a second degree equation with a first degree equation in x and y.

e) **Circle** : Equation of circle -standard form-centre and radius - Equation of a circle with a given line segment as diameter & equation of circle through three non collinear points - parametric equations of a circle - Position of a point in the plane of a circle – power of a point-definition of tangent-length of tangent - Position of a straight line in the plane of a circle-conditions for a line to be tangent – chord joining two points on a circle – equation of the tangent at a point on the

circle- point of contact-equation of normal-Chord of contact-pole and polar-conjugate points and conjugate lines- equation of chord with given middle point, Relative position of two circles- circles touching each other externally, internally common tangents –centers of similitude- equation of pair of tangents from an external point.

f) **System of circles**: Angle between two intersecting circles –condition for orthogonality - Radical axis of two circles- properties- Common chord and common tangent of two circles – radical centre - Intersection of a line and a Circle.

g) **Parabola**: Conic sections –Parabola- equation of parabola in standard form-different forms of parabola- parametric equations, Equations of tangent and normal at a point on the parabola (Cartesian and Parametric)- conditions for straight line to be a tangent.

h) **Ellipse**: Equation of ellipse in standard form- Parametric equations, Equation of tangent and normal at a point on the ellipse (Cartesian and parametric)- condition for a straight line to be a tangent.

i) **Hyperbola**: Equation of hyperbola in standard form- Parametric equations - Equations of tangent and normal at a point on the hyperbola (Cartesian and parametric) - conditions for a straight line to be tangent-Asymptotes.

j) **Three Dimensional Coordinates**: Coordinates - Section formulae - Centroid of a triangle and tetrahedron.

k) **Direction Cosines and Direction Ratios**: Direction Cosines –Direction Ratios.

l) **Plane**: Cartesian equation of a Plane –Simple Illustrations.

CALCULUS

a) **Limits and Continuity**: Intervals and neighborhoods – Limits - Standard Limits–Continuity.

b) **Differentiation**: Derivative of a function - Elementary Properties - Trigonometric, Inverse Trigonometric, Hyperbolic, Inverse Hyperbolic Function – Derivatives - Methods of Differentiation – Second Order Derivatives.

c) **Applications of Derivatives**: Errors & Approximations - Geometrical Interpretation of a derivative - Equations of tangents and normal to a curve – Lengths of Tangent, Normal, Subtangent and subnormal - Angles between two curves and condition for orthogonality of curves – Derivative as a rate of change – Rolle's theorem and Lagrange's Mean value theorem - Increasing and decreasing functions - Maxima and Minima.

d) **Integration**: Integration as the inverse process of differentiation- Standard forms -properties of integrals - Method of substitution- integration of Algebraic, exponential, logarithmic, trigonometric and inverse trigonometric functions - Integration by parts – Integration by the method of substitution – Integration of algebraic and trigonometric functions – Integration by parts – Integration of exponential, logarithmic and inverse trigonometric functions – Integration - Partial fractions method – Reduction formulae.

e) **Definite Integrals**: Definite Integral as the limit of sum, Interpretation of Definite Integral as an area. Fundamental theorem of Integral Calculus. Properties, Reduction formulae, Application of Definite integral to areas.

f) **Differential equations**: Formation of differential equation-Degree and order of an ordinary differential equation - Solving differential equation by i) Variables separable method, ii) Homogeneous differential equation, iii) Non Homogeneous differential equation iv) Linear differential equations

SUBJECT: PHYSICS

1. PHYSICAL WORLD: What is physics? Scope and excitement of physics. Physics, technology and society, Fundamental forces in nature, Nature of physical laws

2. UNITS AND MEASUREMENTS: The international system of units, Measurement of Length, Measurement of Large Distances, Estimation of Very Small Distances, Size of a Molecule, Range of Lengths, Measurement of Mass, Range of Masses, Measurement of time, Accuracy, precision of instruments and errors in measurement, Systematic errors, random errors, least count error, Absolute Error, Relative Error and Percentage Error, Combination of Errors, Significant figures, Rules for Arithmetic Operations with Significant Figures, Rounding off the Uncertain Digits, Rules for Determining the Uncertainty in the Results of Arithmetic Calculations, Dimensions of Physical Quantities, Dimensional Formulae and dimensional equations, Dimensional Analysis and its Applications, Checking the Dimensional Consistency of Equations, Deducing Relation among the Physical Quantities.

3. MOTION IN A STRAIGHT LINE: Position, path length and displacement, average velocity and average speed, instantaneous velocity and speed, acceleration, kinematic equations for uniformly accelerated motion, relative velocity.

4. MOTION IN A PLANE: Scalars and vectors, position and displacement vectors, equality of vectors, multiplication of vectors by real numbers, addition and subtraction of vectors - graphical method, resolution of vectors, vector addition - analytical method, motion in a plane, position vector and displacement, velocity, acceleration, motion in a plane with constant acceleration, relative velocity in two dimensions, projectile motion, equation of path of a projectile, time of maximum height, maximum height of a projectile, horizontal range of projectile, uniform circular motion.

5. LAWS OF MOTION: Aristotle's fallacy, Laws of inertia, Newton's first law of motion, Newton's second law of motion- momentum, impulse, Newton's third law of motion, conservation of momentum,Equilibrium of a particle, Common forces in mechanics, friction, types of friction, static, kinetic and rolling frictions, Circular motion, Motion of a car on a level road, Motion of a car on a banked road, solving problems in mechanics.

6. WORK, ENERGY AND POWER: The Scalar Product, Notions of work and kinetic energy, The work-energy theorem, Work, Kinetic energy, Work done by a variable force, The work-energy theorem for a variable force, The concept of Potential Energy, The conservation of Mechanical Energy, The Potential Energy of a spring, Various forms of energy, Heat, Chemical Energy, Electrical Energy, The Equivalence of Mass and Energy, Nuclear Energy, The Principle of Conservation of Energy, Power, Collisions, Elastic and Inelastic Collisions, Collisions in one dimension, Coefficient of Restitution and its determination, Collisions in Two Dimensions.

7. SYSTEM OF PARTICLES AND ROTATIONAL MOTION: Rigid body motion, Centre of mass, Centre of Gravity, Motion of centre of mass, Linear momentum of a system of particles, Vector product of two vectors, Angular velocity and its relation with linear velocity, Angular acceleration, Kinematics of rotational motion about a fixed axis, Moment of force (Torque), Angular momentum of particle, Torque and angular momentum for a system of a particles - conservation of angular momentum, Equilibrium of a rigid body, Principle of moments, Moment of inertia, Dynamics of rotational motion about a fixed axis, Angular momentum in case of rotation about a fixed axis - conservation of angular momentum, Rolling motion, Kinetic Energy of Rolling Motion.

8. OSCILLATIONS: Periodic and oscillatory motions, Period and frequency, Displacement, Simple harmonic motion (S.H.M.), Simple harmonic motion and uniform circular motion, Velocity and acceleration in simple harmonic motion, Force law for Simple harmonic Motion, Energy in simple harmonic motion, some systems executing Simple Harmonic Motion, Oscillations due to a spring, The Simple Pendulum, damped simple harmonic motion, Forced oscillations and resonance.

9. GRAVITATION: Kepler's laws, Universal law of gravitation, central forces, the gravitational constant, Acceleration due to gravity of the earth, Acceleration due to gravity below and above the surface of earth, Gravitational potential energy, Escape speed, Orbital Speed, Earth satellites, Energy of an orbiting satellite, Geostationary and polar satellites, Weightlessness.

10. MECHANICAL PROPERTIES OF SOLIDS: Elastic behavior of solids, Stress and strain, Hooke's law, Stress-strain curve, Elastic moduli, Young's Modulus, Determination of Young's Modulus of the Material of a Wire, Shear Modulus, Bulk Modulus, Poisson's ratio, Elastic potential energy in a stretched wire, Applications of elastic behavior of materials.

11. MECHANICAL PROPERTIES OF FLUIDS: Pressure, Pascal's Law, Variation of Pressure with Depth, Atmospheric Pressure and Gauge Pressure, Hydraulic Machines, Archimedes' Principle, Streamline flow, Bernoulli's principle, Speed of Efflux, Torricelli's Law, Venturi- meter, Blood Flow and Heart Attack, Dynamic Lift, Viscosity, Variation of Viscosity of fluids with temperature, Stokes' Law, Reynolds number, Critical Velocity, Surface tension and Surface Energy, Angle of Contact, Drops and Bubbles, Capillary Rise, Detergents and Surface Tension.

12. THERMAL PROPERTIES OF MATTER: Temperature and heat, Measurement of temperature, Ideal-gas equation and absolute temperature, Thermal expansion, Specific heat capacity, Calorimetry, Change of state, Triple Point, Regelation, Latent Heat, Heat transfer – Conduction, convection and radiation, Black body Radiation, Greenhouse Effect, Newton's law of cooling and its experimental verification.

13. THERMODYNAMICS: Thermal equilibrium, Zeroth law of thermodynamics, Heat, Internal Energy and work, First law of thermodynamics, Specific heat capacity, Specific heat capacity of water, Thermodynamic state variables and equation of State, Thermodynamic processes, Quasi-static process, Isothermal Process, Adiabatic Process, Isochoric Process, Isobaric process, Cyclic process, Heat engines , Refrigerators and heat pumps, Second law of thermodynamics, Reversible and irreversible processes, Carnot engine, Carnot's theorem.

14. KINETIC THEORY: Molecular nature of matter, Behaviour of gases, Boyle's Law, Charles' Law, Kinetic theory of an ideal gas, Pressure of an Ideal Gas, Kinetic interpretation of temperature, Law of equipartition of energy, Specific heat capacity, Monatomic Gases, Diatomic Gases, Polyatomic Gases, Specific Heat Capacity of Solids, Specific Heat Capacity of Water, Mean free path.

15. WAVES: Transverse and longitudinal waves, wave displacement relation in a progressive wave, amplitude and phase, wavelength and angular wave number, period, angular frequency and frequency, the speed of a travelling wave, speed of a transverse wave on stretched string, speed of a longitudinal wave (speed of sound), the principle of superposition of waves, reflection of waves, standing waves and normal modes, beats, Doppler effect – source moving & Observer stationary, observer moving and source stationary, both observer and source are moving, applications of Doppler effect.

16. RAY OPTICS AND OPTICAL INSTRUMENTS: Reflection of Light by Spherical Mirrors, Sign convention, Focal length of spherical mirror, Mirror equation, refraction, total internal reflection, total internal reflection in nature and its technological applications, refraction at spherical surfaces and by lenses, power of a lens, combination of thin lenses in contact, refraction through a prism, dispersion by a prism, natural phenomena due to sunlight – Rainbow, Scattering of light, optical instruments, the eye, the simple and compound microscopes, refracting telescope and Cassegrain reflecting telescope.

17. WAVE OPTICS: Huygens principle, refraction and reflection of plane waves using Huygens principle, refraction in a rarer medium (at the denser medium boundary), reflection of a plane wave by a plane surface, the Doppler effect, coherent and incoherent addition of waves, interference of light waves and Young's experiment, Diffraction, Single slit, resolving power of optical instruments, the validaity of ray optics, Polarization by scattering, Polarisation by reflection, plane polarized light, polaroids

18. ELECTRIC CHARGES AND FIELDS: Electric charge, conductors and insulators, charging by induction, basic properties of electric charges, additivity of charges, conservation of charge, quantization of charge, Coulomb's law, forces between multiple charges, electric field, electric field due to a system of charges, physical significance of electric field, electric field lines, electric flux, electric dipole, the field of an electric dipole for points on the axial line and on the equatorial plane, physical significance of dipoles, dipole in a uniform external field, continuous charge distribution, Gauss's law, Applications of Gauss's Law infinitely long straight uniformly charged wire, infinite plane sheet , field due to uniformly charged thin spherical shell.

19. ELECTROSTATIC POTENTIAL AND CAPACITANCE: Electrostatic potential, potential due to a point charge, potential due to an electric dipole, potential due to a system of charges, equipotential surfaces, relation between field and potential, potential energy of a system of charges, potential energy in an external field, potential energy of a single charge, potential energy of a system of two charges in an external field, potential energy of a dipole in an external field, electrostatics of conductors, dielectrics and polarisation, electric displacement, capacitors and capacitance, the parallel plate capacitor, effect of dielectric on capacitance, combination of capacitors, capacitors in series, capacitors in parallel, energy stored in a capacitor, Van de Graaff generator.

20. CURRENT ELECTRICITY: Electric current, electric current in conductors, Ohm's law, drift of electrons and the origin of resistivity, mobility, limitations of Ohm's law, resistivity of various materials, colour code of resistors, Temperature dependence of resistivity, electrical energy, power. Combination of Resistors, Series and Parallel, Cells, EMF, internal resistance, cells in series and in parallel, Kirchhoff's rules, Wheatstone Bridge, Meter Bridge, Potentiometer.

21. MOVING CHARGES AND MAGNETISM: Magnetic force, sources and fields, magnetic field, Lorentz force, magnetic force on a current carrying conductor, motion in a magnetic field, helical motion of charged particles, motion in combined electric and magnetic fields, , velocity selector, cyclotron, magnetic field due to a current element, Biot – Savart's law, Magnetic field on the axis of a circular current loop, Ampere's circuital law, the solenoid and the toroid, force between two parallel current carrying conductors, the ampere (UNIT), torque on current loop, magnetic dipole, torque on a rectangular current loop in a uniform magnetic field, circular current loop as a magnetic dipole, the magnetic dipole moment of a revolving electron, the Moving Coil Galvanometer; conversion into ammeter and voltmeter.

22. MAGNETISM AND MATTER: The bar magnet, the magnetic field lines, bar magnet as an equivalent solenoid, The dipole in a uniform magnetic field, the electrostatic analog, Magnetism and Gauss's Law, The Earth's magnetism, magnetic declination and dip, magnetization and magnetic

intensity,magnetic properties of materials – Diamagnetism, Paramagnetism and Ferromagnetism, permanent magnets and electromagnets.

23. ELECTROMAGNETIC INDUCTION: The experiments of Faraday and Henry, magnetic flux, Faraday's Law of induction, Lenz's law and conservation of energy, motional electromotive force, energy consideration - a quantitative study, Eddy currents, inductance, mutual inductance, self-inductance, AC generator.

24. ALTERNATING CURRENT: AC voltage applied to a resistor, representation of AC current and voltage by rotating vectors - Phasors, AC voltage applied to an inductor, AC voltage applied to a capacitor, AC voltage applied to a series LCR circuit, Phasor – diagram solution, analytical solution, resonance, sharpness of resonance,Power in AC circuit: The power factor, Wattless current LC oscillations, transformers.

25. ELECTROMAGNETIC WAVES: Displacement Current, Maxwell's equations, electromagnetic waves, sources of electromagnetic waves, nature of electromagnetic waves, electromagnetic spectrum: radio waves, microwaves, infrared waves, visible rays, ultraviolet rays, X-rays, gamma rays.

26. DUAL NATURE OF RADIATION AND MATTER: Electron emission, Photoelectric Effect, Hertz's observations, Hallwachs and Lenard's observations, experimental study of photoelectric effect, effect of intensity of light on photocurrent, effect of potential on photoelectric current, effect of frequency of incident radiation on stopping potential, Photoelectric effect and Wave theory of Light, Einstein's Photoelectric equation, Energy Quantum of Radiation, particle nature of light, the photon, wave nature of matter, photocell, Davisson and Germer Experiment

27. ATOMS: Alpha particle scattering and Rutherford's nuclear model of atom, alpha particle trajectory, electron orbits, atomic spectra, spectral series, Bohr model of the hydrogen atom, energy levels, Franck – Hertz experiment, the line spectra of the hydrogen atom, deBroglie's explanation of Bohr's second postulate of quantization.

28. NUCLEI: Atomic masses and composition of nucleus, discovery of neutron, size of the nucleus, Mass - Energy, Nuclear Binding Energy, Binding energy of Nueclon and its variation with Mass Number,Nuclear Force, Radioactivity - Law of radioactive decay, half life and mean life of a Radioactive material, Alpha decay, Beta decay and Gamma decay, Nuclear Energy, Fission, Nuclear reactor, nuclear fusion, energy generation in stars, controlled thermonuclear fusion.

29. SEMICONDUCTOR ELECTRONICS: MATERIALS, DEVICES AND SIMPLE CIRCUITS: Classification of metals, conductors, and semiconductors on the basis of conductivity and energy bands, Band theory of solids, Intrinsic semiconductor, Extrinsic semiconductor, p-type semiconductor, n-type semiconductor, p-n junction, forward bias, reverse bias, Semiconductor diode, Application of junction diode as a rectifier, Zener Diode, Zener Diode as a voltage regulator, Optoelectronic junction devices, Photodiode, light emitting diode, solar cell. Junction transistor, structure and action, Basic transistor circuit configurations and transistor characteristics, transistor as a switch and as an amplifier (CE – Configuration), Feedback amplifier and transistor oscillator, Digital Electronics and Logic gates, NOT, OR, AND, NAND and NOR Gates, Integrated circuits.

30. COMMUNICATION SYSTEMS: Elements of a Communication system, basic terminology used in electronic communication systems, bandwidth of signals, bandwidth of transmission medium, propagation of electromagnetic waves, ground waves, sky waves, space wave, modulation and its necessity, size of the antenna or aerial, effective power radiated by an antenna, mixing up of signals from different transmitters, amplitude modulation, production of amplitude modulated wave, detection of amplitude modulated wave.

SUBJECT: CHEMISTRY

Unit-1: ATOMIC STRUCTURE: Sub Atomic particles, Atomic models, Developments to the Bohr's model of atom; Wave nature of electromagnetic radiation; Particle nature of electromagnetic radiation, Planck' s quantum theory; Evidence for the quantized electronic Energy levels : Atomic spectra, Bohr's model for Hydrogen atom; Explanation of line spectrum of hydrogen; Limitations of Bohr's model; Quantum mechanical considerations of sub atomic particles; Dual behaviour of matter; Heisenberg's uncertainty principle; Quantum mechanical model of an atom. Important features of Quantum mechanical model of atom; Orbitals and quantum numbers; Shapes of atomic orbitals; Energies of orbitals; Filling of orbitals in atoms. Aufbau Principle, Pauli's exclusion Principle and Hund's rule of maximum multiplicity; Electronic configurations of atoms; Stability of half-filled and completely filled orbitals.

Unit-2: CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES: Genesis of periodic classification, Modern periodic law and present form of the periodic table; Nomenclature of elements with atomic number greater than100;Electronic configuration of elements and the periodic table; Electronic configuration and types of elements s, p, d and f blocks; Trends in physical properties:(a) Atomic radius, (b) Ionic radius (c) Variation of size in inner transition elements, (d) Ionization enthalpy, (e) Electron gain enthalpy, (f) Electro negativity; Periodic trends in chemical properties: (a) Periodicity of Valence or Oxidation states, (b) Anomalous properties of second period elements –diagonal relationship; Periodic trends and chemical reactivity.

Unit-3: CHEMICAL BONDING AND MOLECULAR STRUCTURE: Kossel - Lewis approach to chemical bonding, Octet rule, Lewis representation of simple molecules, formal charges, limitations of octet rule; Ionic or electrovalent bond - Factors favourable for the formation of ionic compounds- Crystal structure of sodium chloride, Lattice Enthalpy: General properties of ionic compounds; Bond Parameters - bond length ,bond angle, and bond enthalpy, bond order, resonance- Polarity of bonds dipole moment-Fajan rules; Valence Shell Electron Pair Repulsion (VSEPR) theory; Predicting the geometry of simple molecules; Valence bond theory-Orbital overlap concept- Directional properties of bonds-overlapping of atomic orbitals- types of overlapping and nature of covalent bonds-strength of sigma and pi bonds-Factors favouring the formation of covalent bonds; Hybridisation- different types of hybridization involving s, p and d orbitals- shapes of simple covalent molecules; Coordinate bond - definition with examples; Molecular orbital theory - Formation of molecular orbitals, Linear combination of atomic orbitals(LCAO)-conditions for combination of atomic orbitals-, Types of Molecular orbitals, Energy level diagrams for molecular orbitals -, Electronic Configuration and Molecular Behaviour, Bonding in some homo nuclear diatomic molecules- H_2, He_2, Li_2, B_2, C_2, N_2 and O_2; Hydrogen bonding-cause of formation of hydrogen bond - Types of hydrogen bonds-inter and intra molecular-General properties of hydrogen bonds.

Unit-4: STATES OF MATTER: GASES AND LIQUIDS: Intermolecular forces; Thermal Energy; Intermolecular forces Vs Thermal interactions; The Gaseous State; The Gas Laws; Ideal gas equation; Graham's law of diffusion - Dalton's Law of partial pressures; Kinetic molecular theory of gases; Kinetic gas equation of an ideal gas (No derivation) deduction of gas laws from Kinetic gas equation; Distribution of molecular speeds, Kinetic Energy, Behaviour of real gases - Deviation from Ideal gas behaviour - Compressibility factor Vs Pressure diagrams of real gases; Liquification of gases, Liquid state, Vapour Pressure, Surface tension, Viscosity.

Unit-5: STOICHIOMETRY: Significant figures, Laws of Chemical Combinations - Law of Conservation of Mass, Law of Definite Proportions, Law of Multiple Proportions, Atomic and molecular masses- mole concept and molar mass. Concept of equivalent weight; Percentage composition of compounds and calculations of empirical and molecular formulae of compounds; Stoichiometry and stoichiometric calculations- limiting reagent; Methods of Expressing concentrations of solutions- mass percent, mole fraction, molarity, molality and normality; Redox reactions-classical idea of redox reactions, oxidation and reduction reactions- redox reactions in terms of electron transfer; Oxidation number concept; Types of Redox reactions- combination, decomposition, displacement and disproportionation reactions; Balancing of redox reactions-oxidation number method Half reaction (ion-electron)method; Redox reactions in titrimetry.

Unit-6: THERMODYNAMICS: Thermodynamic Terms; The system and the surroundings; Types of systems and surroundings; The state of the system; The Internal Energy as a State Function. (a)Work (b) Heat (c) The general case, the first law of Thermodynamics; Applications; Work; Enthalpy, H- a useful new state function; Extensive and intensive properties; The relationship between C_p and C_v; Measurement of ΔU and ΔH: Calorimetry; Enthalpy change, $\Delta_r H$ of reactions- reaction Enthalpy (a) Standard enthalpy of reactions, (b) Enthalpy changes during transformations, (c) Standard enthalpy of formation, (d) Thermochemical equations (e) Hess's law of constant Heat summation; Enthalpies for different types of reactions. (a) Standard enthalpy of combustion ($\Delta_c H^0$), (b) Enthalpy of atomization ($\Delta_a H^0$), phase transition, sublimation and ionization, (c) Bond Enthalpy ($\Delta_{bond} H^0$), (d) Enthalpy of solution ($\Delta_{sol} H^0$) and dilution-lattice enthalpy; Spontaneity. (a) Is decrease in enthalpy a criterion for spontaneity? (b) Entropy and spontaneity, the second law of thermodynamics, (c) Gibbs Energy and spontaneity; Absolute entropy and the third law of thermodynamics.

Unit-7: CHEMICAL EQUILIBRIUM AND ACIDS-BASES: Equilibrium in Physical process; Equilibrium in chemical process - Dynamic Equilibrium; Law of chemical Equilibrium - Law of mass action and Equilibrium constant; Homogeneous Equilibria, Equilibrium constant in gaseous systems. Relationship between K_P and K_c; Heterogeneous Equilibria; Applications of Equilibrium constant; Relationship between Equilibrium constant K, reaction quotient Q and Gibbs energy G; Factors affecting Equilibria.-Le-chatlier principle application to industrial synthesis of Ammonia and Sulphur trioxide; Ionic Equilibrium in solutions; Acids, bases and salts- Arrhenius, Bronsted-Lowry and Lewis concepts of acids and bases; Ionisation of Acids and Bases - Ionisation constant of water and its ionic product- P^H scale-ionisation constants of weak acids-ionisation of weak bases-relation between K_a and K_b-Di and poly basic acids and di and poly acidic Bases-Factors affecting acid strength- Common ion effect in the ionization of acids and bases- Hydrolysis of salts and pH of their solutions, Buffer solutions - Solubility Equilibria of sparingly soluble salts. Solubility product constant Common ion effect on solubility of Ionic salts.

Unit-8: HYDROGEN AND ITS COMPOUNDS: Position of hydrogen in the periodic table; Dihydrogen-Occurrence and Isotopes; Preparation and properties of dihydrogen, uses of H_2, Hydrides: Ionic, covalent, and non-stoichiometric hydrides; Water: Physical properties; structure of water, ice. Chemical properties of water; hard and soft water, Temporary and permanent hardness of water; Hydrogen Peroxide: Preparation, properties, structure, storage and uses. Heavy Water; Hydrogen as a fuel.

Unit-9: THE s-BLOCK ELEMENTS (ALKALI AND ALKALINE EARTH METALS):

Group 1 Elements : Alkali metals; Electronic configurations; Atomic and Ionic radii; Ionization enthalpy; Hydration enthalpy; Physical properties; Chemical properties; Uses; General characteristics of the compounds of the alkali metals: Oxides; Halides; Salts of oxo Acids; Anomalous properties of Lithium: Differences and similarities with other alkali metals, Diagonal relationship; similarities between Lithium and Magnesium; Some important compounds of Sodium:

Sodium Chloride, Sodium carbonate, Sodium Hydroxide, Sodium Bicarbonate, Biological importance of Sodium and Potassium.

Group 2 Elements: Alkaline earth elements; Electronic configuration; Ionization enthalpy; Hydration enthalpy; Physical properties, Chemical properties; Uses; General characteristics of compounds of the Alkaline Earth Metals: Oxides, hydroxides, halides, salts of oxy acids (Carbonates; Sulphates and Nitrates); Anomalous behavior of Beryllium; its diagonal relationship with Aluminum; Some important compounds of calcium: Preparation and uses of Calcium Hydroxide, Quick lime, Calcium Carbonate, Plaster of Paris; Cement, Biological importance of Calcium and Magnesium.

Unit-10: p- BLOCK ELEMENTS GROUP 13 (BORON FAMILY): General introduction – Electronic configuration, atomic radii, Ionization enthalpy, Electro negativity; Physical & Chemical properties Aluminum reactivity towards acids & alkalies, Important trends and anomalous properties of boron; Some important compounds of Boron- Borax, orthoboric acid, Diborane, Uses of boron, aluminum, and their compounds.

Uni-11: p-BLOCK ELEMENTS - GROUP 14 (CARBON FAMILY): General introduction – Electronic configuration, atomic radii, Ionization enthalpy, Electro negativity; Physical & Chemical properties; Important trends and anomalous properties of carbon; Allotropes of carbon; Uses of carbon; Some important compounds of Carbon and Silicon: Carbon Monoxide, Carbon dioxide, Silica, Silicones, Silicates, Zeolites.

Unit-12: Environmental Chemistry: Definition of terms: Air, Water, Soil Pollutions, Environmental Pollution, Atmospheric Pollution, Acid rain, Particulate pollutants, Stratospheric pollution, Water pollution, Soil pollution, Strategies to control Environmental pollution, Green Chemistry.

Unit-13: **ORGANIC CHEMISTRY-SOME BASIC PRINCIPLES AND TECHNIQUES AND HYDRO CARBONS:** General introduction; Tetravalency of Carbon: shapes of organic compounds; Structural representations of organic compounds; Classification of organic compounds; Nomenclature of organic compounds; Isomerism; Fundamental concepts in organic reaction mechanisms; Fission of covalent bond; Nucleophiles and electrophiles; Electron movements in organic reactions; Electron displacement effects in covalent bonds: inductive effect, resonance, resonance effect, electromeric effect, hyper conjugation; Types of Organic reactions; Methods of purification of Organic compounds, Qualitative elemental analysis of Organic compounds, Quantitative elemental analysis.

Hydrocarbons: Classification of Hydrocarbons; **Alkanes** - Nomenclature, isomerism (structural and conformations of ethane only); Preparation of alkanes; Properties - Physical properties and chemical Reactivity, Substitution reactions – Halogenation, Controlled Oxidation, Isomerisation, Aromatization, and reaction with steam; **Alkenes-** Nomenclature, structure of ethene, Isomerism; Methods of preparation; Properties-Physical and chemical reactions: Addition of dihydrogen, halogen, water, Sulphuric acid, Hydrogen halides (Mechanism- ionic and peroxide effect, Markovnikov's, anti-Markovnikov's or Kharasch effect). Oxidation, Ozonolysis and Polymerization; **Alkynes -** Nomenclature and isomerism, structure of acetylene. Methods of preparation of acetylene; Physical properties, Chemical reactions- acidic character of alkyne, addition reactions-of hydrogen, Halogen, Hydrogen halides and water. Polymerization; **Aromatic Hydrocarbons:** Nomenclature and isomerism, Structure of benzene, Resonance and aromaticity; Preparation of benzene. Physical properties. Chemical properties: Mechanism of electrophilic substitution. Electrophilic substitution reactions- Nitration, Sulphonation, Halogenation, Friedel-Craft's alkylation and acylation; Directive influence of functional groups in mono substituted benzene, Carcinogenicity and toxicity.

Unit-14: SOLID STATE: General characteristics of solid state; Amorphous and crystalline solids; Classification of crystalline solids based on different binding forces (molecular, ionic, metallic and covalent solids); Probing the structure of solids: X-ray crystallography; Crystal lattices and unit cells. Bravais lattices primitive and centered unit cells; Number of atoms in a unit cell (primitive, body centered and face centered cubic unit cell);Close packed structures: Close packing in one dimension, in two dimensions and in three dimensions- tetrahedral and octahedral voids- formula of a compound and number of voids filled- locating tetrahedral and octahedral voids; Packing efficiency in simple cubic, bcc and in hcp, ccp lattice; Calculations involving unit cell dimensions-density of the unit cell; Imperfections in solids-types of point defects-stoichiometric and non-stoichiometric defects; Electrical properties-conduction of electricity in metals, semiconductors and insulators- band theory of metals; Magnetic properties

Unit-15: SOLUTIONS: Types of solutions; Expressing concentration of solutions-mass percentage, volume percentage, mass by volume percentage, parts per million, mole fraction, molarity and molality; Solubility: Solubility of a solid in a liquid, solubility of a gas in a liquid, Henry's law; Vapour pressure of liquid solutions: vapour pressure of liquid- liquid solutions. Raoult's law as a special case of Henry's law -vapour pressure of solutions of solids in liquids; Ideal and non-ideal solutions; Colligative properties and determination of molar mass-relative lowering of vapour pressure-elevation of boiling point-depression of freezing point-osmosis and osmotic pressure-reverse osmosis and water purification; Abnormal molar masses-van't Hoff factor

Unit-16: ELECTROCHEMISTRY AND CHEMICAL KINETICS:

Electrochemistry: Electrochemical cells; Galvanic cells: measurement of electrode potentials; Nernst equation- equilibrium constant from Nernst equation- electrochemical cell and Gibbs energy of the cell reaction; Conductance of electrolytic solutions-measurement of the conductivity of ionic solutions-variation of conductivity and molar conductivity with concentration-strong electrolytes and weak electrolytes-applications of Kohlrausch's law; Electrolytic cells and electrolysis: Faraday's laws of electrolysis-products of electrolysis; Batteries: primary batteries and secondary batteries, Fuel cells, Corrosion of metals-Hydrogen economy.

Chemical Kinetics: Rate of a chemical reaction; Factors influencing rate of a reaction: dependence of rate on concentration- rate expression and rate constant-order of a reaction, molecularity of a reaction; Integrated rate equations-zero order reactions-first order reactions- half-life of a reaction; Pseudo first order reactions; Temperature dependence of the rate of a reaction -effect of catalyst; Collision theory of chemical reaction rates

Unit-17: SURFACE CHEMISTRY: Adsorption: Distinction between adsorption and absorption-mechanism of adsorption- types of adsorption- characteristics of physisorption-characteristics of chemisorption- adsorption isotherms- adsorption from solution phase-applications of adsorption;

Catalysis: Catalysts, promoters and poisons-autocatalysis- homogeneous and heterogeneous catalysis-adsorption theory of heterogeneous catalysis- important features of solid catalysts: (a)activity (b)selectivity- shape-selective catalysis by zeolites- enzyme catalysis-characteristics and mechanism- catalysts in industry

Colloids: Classification of colloids: Classification based on physical state of dispersed phase and dispersion medium-classification based on nature of interaction between dispersed phase and dispersion medium- classification based on type of particles of the dispersed phase-multimolecular, macromolecular and associated colloids-cleansing action of soaps-preparation of colloids-purification of colloidal solutions- properties of colloidal solutions: Colligative properties, Tyndal effect, colour, Brownian movement-charge on colloidal particles, electrophoresis; coagulation-precipitation methods-coagulation of lyophilic sols and protection of colloids- Emulsions; Colloids around us-application of colloids.

Unit-18: GENERAL PRINCIPLES OF METALLURGY: Occurrence of metals; Concentration of ores- levigation, magnetic separation, froth floatation leaching; Extraction of crude metal from concentrated ore-conversion to oxide, reduction of oxide to the metal; Thermodynamic principles of metallurgy-Ellingham diagram-limitations- applications-extraction of iron, copper and zinc from their oxides; Electrochemical principles of metallurgy; Oxidation and reduction; Refining of crude metal-distillation, liquation poling, electrolysis, zone refining and vapour phase refining; Uses of aluminum, copper, zinc and iron

Unit-19: p-BLOCK ELEMENTS: **Group-15 Elements:** Occurrence-electronic configuration, atomic and ionic radii, ionization enthalpy, electro negativity, physical and chemical properties; Dinitrogen-preparation, properties and uses; Compounds of nitrogen-preparation, properties, and uses of ammonia; Oxides of nitrogen; Preparation and properties of nitric acid;

Phosphorous-allotropic forms; Phosphine- preparation and properties; Phosphorous halides; Oxoacids of phosphorous; Phosphorous halides & Oxo acids of phosphorous

Group-16 Elements: Occurrence-electronic configuration, atomic and ionic radii, ionization enthalpy, electron gain enthalpy, electro negativity, physical and chemical properties; Dioxygen-preparation, properties and uses; Simple oxides; Ozone-preparation, properties, structure and uses; Sulphur-allotropic forms; Sulphur dioxide-preparation, properties and uses; Oxoacids of sulphur; Sulphuric acid-industrial process of manufacture, properties and uses.

Group-17 Elements: Occurrence, electronic configuration, atomic and ionic radii, ionization enthalpy, electron gain enthalpy, electronegativity, physical and chemical properties; Chlorine-preparation, properties and uses; Hydrogen chloride- preparation, properties and uses; Oxoacids of halogens; Interhalogen compounds-preparation, properties and uses.

Group-18 Elements: Occurrence, electronic configuration, ionization enthalpy, atomic radii, electron gain enthalpy, physical and chemical properties(a) Xenon-fluorine compounds- XeF_2, XeF_4 and XeF_6 -preparation, hydrolysis and formation of fluoro anions-structures of XeF_2, XeF_4 and XeF_6 (b) Xenon-oxygen compounds XeO_3 and $XeOF_4$ -their formation and structures-uses of noble gases.

Unit-20: d AND f BLOCK ELEMENTS & COORDINATION COMPOUNDS: d and f block elements: Position in the periodic table; Electronic configuration of the d-block elements; General properties of the transition elements (d-block) -physical properties, variation in atomic and ionic sizes of transition series, ionization enthalpies, oxidation states, trends in the M^{2+}/M and M^{3+}/M^{2+} standard electrode potentials, trends in stability of higher oxidation states, chemical reactivity and E^{θ} values, magnetic properties, formation of coloured ions, formation of complex compounds, catalytic properties, formation of interstitial compounds, alloy formation; Some important compounds of transition elements-oxides and oxo-anions of metals-uses of potassium dichromate and potassium permanganate-structures of chromate, dichromate, manganate and permanganate ions; Inner transition elements(f-block)-lanthanoids-electronic configuration-atomic and ionic sizes-oxidation states- general characteristics; The Actinoids- electronic configurations, ionic sizes, oxidation states, general characteristics and comparison with lanthanoids; Some applications of d and f block elements.

Coordination compounds: Werner's theory of coordination compounds; Definitions of some terms used in coordination compounds; Nomenclature of coordination compounds-IUPAC nomenclature;

Isomerism in coordination compounds-(a)Stereo isomerism- Geometrical and optical isomerism (b)Structural isomerism- linkage, coordination, ionization and solvate isomerism

Bonding in coordination compounds. (a)Valence bond theory - magnetic properties of coordination compounds-limitations of valence bond theory (b) Crystal field theory (i) Crystal field splitting in octahedral and tetrahedral coordination entities (ii) Colour in coordination compounds- limitations

of crystal field theory; Bonding in metal carbonyls; Stability of coordination compounds; Importance and applications of coordination compounds.

Unit-21: POLYMERS: Classification of Polymers -Classification based on source, structure, mode of polymerization, molecular forces and growth polymerization; Types of polymerization reactions- addition polymerization or chain growth polymerization- Ionic polymerization, free radical mechanism-preparation of addition polymers- polythene, Teflon and poly acrylonitrile-condensation polymerization or step growth polymerization-polyamides- preparation of Nylon 6,6 and nylon 6-polyesters- terylene- bakelite, melamine, formaldehyde polymer- copolymerization- Rubber- natural rubber-vulcanisation of rubber-Synthetic rubbers- preparation of neoprene and buna-N; Molecular mass of polymers-number average and weight average molecular masses- poly dispersity index(PDI); Biodegradable polymers- poly β-Hydroxy butyrate-Co β-Hydroxy Velarate (PHBV), Nylon 2-nylon 6; Polymers of commercial importance- poly propene, polystyrene, poly vinyl chloride(PVC), urea- formaldehyde resin, glyptal, bakelite- their monomers, structures and uses

Unit-22: BIOMOLECULES: Carbohydrates-Classification of carbohydrates-Monosaccharides: preparation of glucose from sucrose and starch-Properties and structure of glucose-D, L configurations and (+), (-) configurations of glucose-Structure of fructose; Disaccharides: Sucrose-preparation, structure; Invert sugar- Structures of maltose and lactose- Polysaccharides: Structures of starch, cellulose and glycogen- Importance of carbohydrates; Amino acids: Natural amino acids-classification of amino acids-structures and D and L forms-Zwitterions; Proteins-Structures, classification, fibrous and globular- primary, secondary, tertiary and quaternary structures of proteins- Denaturation of proteins;

Enzymes: Enzymes, mechanism of enzyme action; **Vitamins:** Explanation-names- classification of vitamins - sources of vitamins-deficiency diseases of different types of vitamins; **Nucleic acids:** chemical composition of nucleic acids, structures of nucleic acids, DNA fingerprinting biological functions of nucleic acids;

Hormones: Definition, different types of hormones, their production, biological activity, diseases due to their abnormal activities.

Unit-23: CHEMISTRY IN EVERYDAYLIFE- Drugs and their classification: (a) Classification of drugs on the basis of pharmacological effect (b) Classification of drugs on the basis of drug action (c) Classification of drugs on the basis of chemical structure (d) Classification of drugs on the basis of molecular targets; Drug-Target interaction-Enzymes as drug targets (a) Catalytic action of enzymes (b) Drug-enzyme interaction Receptors as drug targets; Therapeutic action of different classes of drugs: antacids, antihistamines, neurologically active drugs: tranquilizers, analgesics–non- narcotic, narcotic analgesics, antimicrobials-antibiotics, antiseptics and disinfectants-antifertility drugs; Chemicals in food- artificial sweetening agents, food preservatives, antioxidants in food; Cleansing agents-soaps and synthetic detergents

Unit-24:HALO ALKANES AND HALO ARENES: Classification and nomenclature; Nature of C-X bond; Methods of preparation: Alkylhalides and arylhalides-from alcohols, from hydrocarbons (a) by free radical halogenation (b) by electrophilic substitution (c) by replacement of diazonium group (Sandmeyer reaction) (d) by the addition of hydrogen halides and halogens to alkenes-by halogen exchange reactions (Finkelstein reaction); Physical properties-melting and boiling points, density and solubility; Chemical reactions: Reactions of haloalkanes (i) Nucleophilic substitution reactions (a) SN^2 mechanism (b) SN^1mechanism (c) stereo chemical aspects of nucleophilic substitution reactions-optical activity (ii) Elimination reactions (iii) Reaction with metals-Reactions

of haloarenes: (i) Nucleophilic substitution (ii) Electrophilic substitution and (iii) Reaction with metals;

Polyhalogen compounds: Uses and environmental effects of dichloro methane, trichloromethane, triiodomethane, tetrachloro methane, freons and DDT

Unit-25: ORGANIC COMPOUNDS CONTAINING C, H AND O (ALCOHOLS, PHENOLS, ETHERS, ALDEHYDES, KETONES AND CARBOXYLICACIDS):

Alcohols, Phenols and Ethers: Alcohols, phenols and ethers-classification; Nomenclature: (a)Alcohols, (b) phenols and (c) ethers; Structures of hydroxy and ether functional groups; Methods of preparation: Alcohols from alkenes and carbonyl compounds, from Grignard reagents; Phenols from haloarenes, benzene sulphonic acid, diazonium salts, cumene; Physical properties of alcohols and phenols; Chemical reactions of alcohols and phenols (i) Reactions involving cleavage of O-H bond in alcohols-Acidity of alcohols and phenols, esterification (ii) Reactions involving cleavage of C-O bond-reactions with HX, PX_3, dehydration and oxidation (iii) Reactions of phenols-electrophilic aromatic substitution, Kolbe's reaction, Reimer - Tiemann reaction, reaction with zinc dust, oxidation;

Commercially important alcohols (methanol, ethanol)

Ethers-Methods of preparation: By dehydration of alcohols, Williamson synthesis-Physical properties-Chemical reactions: Cleavage of C-O bond and electrophilic substitution of aromatic ethers (anisole).

Aldehydes and Ketones: Nomenclature and structure of carbonyl group; Preparation of aldehydes and ketones-(1) by oxidation of alcohols (2) by dehydrogenation of alcohols (3) from hydrocarbons -Preparation of aldehydes (1) from acyl chlorides (2) from nitriles and esters (3) from hydrocarbons-Preparation of ketones (1)from acyl chlorides (2) from nitriles (3) from benzene or substituted benzenes; Physical properties of aldehydes and ketones; Chemical reactions of aldehydes and ketones-nucleophilic addition, reduction, oxidation, reactions due to α-Hydrogen and other reactions (Cannizzaro reaction, electrophilic substitution reaction);Uses of aldehydes and ketones.

Carboxylic acids: Nomenclature and structure of carboxyl group; Methods of preparation of carboxylic acids (1) from primary alcohols and aldehydes (2) from alkyl benzenes (3) from nitriles and amides (4) from Grignard reagents (5) from acyl halides and anhydrides (6) from esters; Physical properties; Chemical reactions: (i) Reactions involving cleavage of O-H bond-acidity, reactions with metals and alkalies (ii) Reactions involving cleavage of C-OH bond- formation of anhydride, reactions with PCl_5, PCl_3, $SOCl_2$, esterification and reaction with ammonia (iii) Reactions involving-COOH group-reduction, decarboxylation (iv) Substitution reactions in the hydrocarbon part-halogenation and ring substitution; Uses of carboxylic acids.

Unit-26: ORGANIC COMPOUNDS CONTAINING NITROGEN:

Amines: Structure of amines; Classification; Nomenclature; Preparation of amines: reduction of nitro compounds, ammonolysis of alkyl halides, reduction of nitriles, reduction of amides, Gabriel phthalimide synthesis and Hoffmann bromamide degradation reaction; Physical properties; Chemical reactions: basic character of amines, alkylation, acylation, carbyl amine reaction, reaction with nitrous acid, reaction with aryl sulphonyl chloride, electrophilic substitution of aromatic amines (aniline)-bromination, nitration and sulphonation.

DIAZONIUM SALTS- Methods of preparation of diazonium salts (by diazotization); Physical properties; Chemical reactions: Reactions involving displacement of Nitrogen, reactions involving

retention of di azo group –coupling reactions; Importance of diazonium salts in synthesis of aromatic compounds

Cyanides and Isocyanides:

Structure and nomenclature of cyanides and isocyanides; Preparation, physical properties and chemical reactions of cyanides and isocyanide

ANNEXURE – II

MODEL QUESTIONS – MATHEMATICS

1) If a point (a,a) falls between the lines $|x+y| = 4$
   1) $|a| = 2$ 2) $|a| = 3$ 3) $|a| < 2$ 4) $|a| < 3$

2) The variance of 30 observations is 3. If each of the observations is multiplied by 3, then the variance of the resulting observations is :
   1) 3   2) 9   3) 27   4) 81

3) If the sum of two positive numbers is k, then the sum of their squares will be minumum, when the numbers are
   1) k/4, k/4   2) k/3, k/3   3) k/2, k/2   4) k,k

4) If the lines 4x+3y-1=0, x-y+5=0 and kx+5y-3=0 are concurrent then k =
   1) 4   2) 5   3) 6   4) 7

5) In any ΔABC, $b^2 \sin 2C + c^2 \sin B =$
   1) Δ 2) 2Δ 3) 3Δ 4) 4Δ

MODEL QUESTIONS – PHYSICS

1. A particle starts from origin at t=0 with a velocity of 10 **i** m/s and moves in x-y plane under the action of force which produces a constant acceleration of $(2i + 3j)$ m/s^2 . The y – coordinate in meters of the particle at the instant its x-coordinate is 24m becomes
(1) 12   (2) 6   (3) 18   (4) 3

2. When 0.2 kg of ice at 0^0 C mixed with 0.5 kg of water at 60^0 C in a container , the resulting temperature is 10^0 C. The heat of fusion of ice ($S_{water} = 4.186$ J/kg/K)
(1) 1.31 X 10^5 J/kg   (2) 2.62 X 10^5 J/kg
(3) 10.46 X 10^5 J/kg   (4) 5.23 X 10^5 J/kg

3. 5 bulbs each of 100 W are connected across 220 V power supply for domestic application. If each unit costs Rs. 4 then the cost per day in Rs. is
(1) 48   (2) 24   (3) 96   (4) 12

4. A solenoid of length 1.0m has a radius of 1cm and is made up of 1000 turns. It carries a current of 2.5 A. The magnitude of the magnetic field inside the solenoid in Teslais
(1) π x 10^{-3} (2) π x 10^{-4} (3) π x 10^{-6} (4) π x 10^{-5}

MODEL QUESTIONS – CHEMISTRY
1. Which one of the following has stable electronicconfiguration?
(1) N   (2) C   (3) F   (4) Al

2. Which one of the following exhibits acidity?
(1) R-OH   (2) R-CHO   (3) R-X   (4) C_6H_5-OH

3. Assertion (A): Carbonyl compounds undergo nucleophilic addition reactions.

Reason (R): Carbonyl group is non-polar.
The correct answer is:
  (1) Both (A) and (R) are true and (R) is the correct explanation of(A)
  (2) Both (A) and (R) are true and (R) is not the correct explanation of(A)
  (3) (A) is true but (R) is not true
  (4) (A) is not true but (R) is true

4. Match the following:
LIST I LIST II
  (A) Packing efficiency in ccp structure   (1) 2
  (B) Number of atoms in bcc unit cell   (2) 4
  (C) Packing efficiency in simple cubic structure   (3) 52.4%
  (D) Number of atoms in fcc unit cell   (4) 68.0%
                                                              (5) 74%

The correct answer is:

	(A)	(B)	(C)	(D)
(1)	5	4	3	2
(2)	3	2	1	4
(3)	5	1	3	2
(4)	4	1	2	3

ANNEXURE – III

DEFINITION OF LOCAL / NON - LOCAL STATUS

1. A Candidate shall be regarded as a local Candidate in relation to a local area (AU/OU/SVU)
If he/she has studied in an Educational Institution or Educational Institutions in such local area for a period of not less than four consecutive academic years ending with the academic year in which he/she appeared or first appeared in the relevant qualifying examination as the case may be.

Where, during the whole or any part of the four consecutive academic years in which he/she appeared, or first appeared in the relevant qualifying examination, he/she has not studied in any educational institutions, if he/she resided in that local area for a period of not less than four years immediately preceding the date of commencement of the relevant qualifying examination in which he/she appeared, or first appeared, as the case maybe.

2. A candidate who is not regarded as local candidate under clause (1) above in relation to any local area shall,

If he/she studied in the educational institutions in the state for a period of not less than seven consecutive academic years ending with the academic year in which he/she appeared or first appeared for the relevant qualifying examination as the case may be, be regarded as a local candidate in relation to
  i.   Such local area where he/she studied for the maximum period out of period of seven years.
         OR
  ii.   Where the period of his/her study in two or more local areas is equal, such local area where he/she studied last in such equal periods.

If during the whole or any part of the seven consecutive academic years ending with the academic year in which he/she appeared or first appeared for the relevant qualifying examination, he/she has not studied in the educational institutions, in any local area, but has resided in the state during the whole of the said period of seven years, be regarded as a local candidate in relation to
  i.   Such local area where he/she has resided for the maximum period out of the said period of seven years.
         OR
  ii.   Where the period of his/her residence in two or more local areas is equal such local area where he/she had resided last in such periods.

Note:
1. Local area in respect of Andhra University (A.U. area) includes Nagarjuna University area. In respect of Sri Venkateswara University (S.V.U. area), it includes Sri Krishnadevaraya University area. In respect of Osmania University (O.U. area), it includes Kakatiya University area. (Table showing the Local Areas of new districts of AP is given below).
2. The Candidate belonging to PIO / OCI category will be considered as under non local category only.
3. Candidates coming under any of the categories given below and not satisfying the

conditions mentioned in 1 or 2 above are treated as "Non-Local"to all the three University areas specified above.

a. Candidates who have resided in the state of A.P. for a total period of 10 years or more excluding the period of study outside this state.

<div align="center">OR</div>

b. Candidates either of whose parents has resided in this state for a total period of 10 years or more excluding the periods of employment outside the state

<div align="center">OR</div>

c. Candidates either of whose parents is employed in the State of A.P. or Central Government Public Sector Corporations, Local Bodies, Universities and other similar quasi Government Institutions within this state, at the time of submitting the application

<div align="center">OR</div>

d.Candidates who are spouses of those employed in the State of A.P. or Central Government, Public Sector Corporations, Local Bodies, Universities and other similar quasi Government Institutions within this state, at the time of submitting the application.

For full details refer G.O.No. 646, dated 10.07.1979.

Note:

Blank **Proforma III** is provided for submitting relevant information regarding Local/Non-Local status of candidates.

S.No	District Official Name	Local Area
1	Srikakulam	AU
2	Parvathipuram Manyam	AU
3	Vizianagaram	AU
4	Visakhapatnam	AU
5	Alluri Sitharama Raju	AU
6	Anakapalli	AU
7	Kakinada	AU
8	East Godavari	AU
9	Konaseema	AU
10	Eluru	AU
11	West Godavari	AU
12	NTR	AU
13	Krishna	AU
14	Palnadu	AU
15	Guntur	AU
16	Bapatla	AU
17	Prakasam	AU
18	Sri Potti Sriramulu Nellore	SVU
19	Kurnool	SVU
20	Nandyal	SVU
21	Anantapur	SVU
22	Sri Sathya Sai	SVU
23	YSR	SVU
24	Annamayya	SVU
25	Tirupati	SVU
26	Chittoor	SVU

NORMALIZATION PROCEDURE

Candidates are aware that the APEAPCET-2024 (MPC and Bi.PC Streams) will be conducted from 16-05-2024 to 23-05-2024 in multiple sessions.

APEAPCET-2024 is being conducted in multiple sessions based on the same syllabus, same pattern for candidates having the same eligibility criteria. A candidate will be eligible to appear only in one session. Since the question paper will be different for each session, there is a possibility that the candidates compare themselves about the variation in the difficulty level of questions. However, it may be noted that utmost care will be taken so that all the papers are of the same standard. Further, it is decided to adopt a normalization process to eliminate any such variations in the difficulty level of various sessions.

What is Normalization?

Normalization, as used in the Indian context, is a process for ensuring the students neither advantaged nor disadvantaged by the difficulty of examinations conducted in multiple sessions. This process is based on a simple formula which has been adopted as recommended by the experts from reputed educational institutions at all India level and Universities. The process is being implemented in other all India / Nationwide entrance tests for admission into undergraduate and graduate professional courses. Normalization process ranks all the candidates across all sessions on a comparative scale. In any normalization process, the marks of the easier session may be reduced marginally and the marks of the harder paper may increase marginally on the global level, depending on the average performance in each session. If there is no much difference in the averages between the two sessions then there won"t be much difference in the normalized marks as well. Normalizing marks would justify the candidates while protecting their actual performance.

AP EAPCET marks Normalization Process:

The main aim of the normalization is to justify the candidates who got a difficult paper compared to an easier paper. Hence, the task is to rationalize in the best possible sense and rank the candidates based on the global performance. Various national level examination bodies like JEE (Main), GATE etc. are currently adopting such normalization procedures. Correspondingly, EAPCET committee has deliberated extensively and decided to use the following normalization procedure.

Normalized Marks of the candidate

$$GMS \ + \frac{Top\ Average\ Global - GMS}{Top\ Average\ Session - SMS} \times (\ Marks\ Obtained\ by\ Candidate - SMS\ )$$

where

SMS: (Average + Standard Deviation) of the session in which the candidate belongs to

GMS: (Average + Standard Deviation) of all the candidates across all sessions together

Top Average Session: Average marks of the top 0.1% of the candidates in the session in

which the candidate belongs to

Top Average Global: Average marks of the top 0.1% of all the candidates across all sessions together

Weightage for assigning merit ranks:

75% of AP EAPCET normalized marks and 25% of Intermediate Marks in group subjects to prepare the rank.

Note:

➢ For Candidates having qualifying marks in AP EAPCET-2024, if after normalization, the marks(s) in any individual subject(s) become negative, then the normalized mark(s) in the respective subject(s) are treated as zero. However, total marks in three subjects are considered as EAPCET marks.

➢ For the candidates for whom there is no qualifying cut-off in AP EAPCET - 2024, if the marks in all the three subjects after normalization go below zero (negative), the total marks are treated as zero and the rank is assigned. If the tie persists then APEAPCET 2024 normalization marks (though negative are considered for breaking the tie.

Demonstration with a sample data:

The following is based on sample data to explain the normalization process. The data is based on an almost equal number of candidates in all four sessions. The normalization is shown subject wise so that students get the benefit based on subject wise performance rather than the entire paper in a session.

Averages and Standard Deviations in a particular session and averages of top 0.1% candidates of a particular session, Global Average and Standard Deviations of all sessions together, Averages of top 0.1% candidates in all sessions is given in Table

1. Example data of normalized marks is shown in Table 2 to Table 5.

Table 1: Averages and Standard Deviations of sample data

		Maths	Physics	Chemistry
Session1	Avg	27.01245	11.44816	13.56629
	Std_Dev	10.23632	4.135746	5.939418
	Top 0.1% Avg	74.28	37.93	37.7
Session2	Avg	27.23746	11.49711	13.69626
	Std_Dev	10.38974	4.177132	6.005731
	Top 0.1% Avg	74.85	38.03	37.93
Session3	Avg	23.8686	10.25933	13.55555
	Std_Dev	7.717783	3.20095	5.403734
	Top 0.1% Avg	70.05	35.55	39
Session4	Avg	23.95383	10.2931	13.55808
	Std_Dev	7.793973	3.212227	5.460391
	Top 0.1% Avg	70.18	36.4	39.38
All sessions together	*Global_Avg*	*25.52725*	*10.87743*	*13.60516*
	Global_Std_Dev	9.252138	3.764241	5.718592
	Top 0.1% Global Avg	73.92	37.65	38.74

Table 2: Example of Normalized marks in Session 1:

Candidate	Marks	Maths	Physics	Chemistry	Total
C1	Actual Marks	0	0	0	0
	Normalized Marks	-4.6	-1.407	-1.49	-7.498
C2	Actual Marks	8	3	5	16
	Normalized Marks	3.857	1.682	3.845	9.385
C3	Actual Marks	61	16	25	102
	Normalized Marks	59.89	15.07	25.19	100.1
C4	Actual Marks	76	36	38	150
	Normalized Marks	75.75	35.67	39.06	150.5

Table 3: Example of Normalized marks in Session 2:

Candidate	Marks	Maths	Physics	Chemistry	Total
C1	Actual Marks	1	3	4	8
	Normalized Marks	-3.74	1.595	2.595	0.451
C2	Actual Marks	14	9	2	25
	Normalized Marks	9.932	7.771	0.464	18.17
C3	Actual Marks	48	24	33	105
	Normalized Marks	45.69	23.21	33.49	102.4
C4	Actual Marks	78	38	39	155
	Normalized Marks	77.24	37.62	39.88	154.7

Table 4: Example of Normalized marks in Session 3:

Candidate	Marks	Maths	Physics	Chemistry	Total
C1	Actual Marks	0	0	0	0
	Normalized Marks	2.634	0.622	0.957	4.21
C2	Actual Marks	10	5	1	16
	Normalized Marks	12.81	5.83	1.926	20.6
C3	Actual Marks	50	17	31	98
	Normalized Marks	53.52	18.33	30.99	103
C4	Actual Marks	74	39	38	151
	Normalized Marks	77.94	41.24	37.77	157

Table 5: Example of Normalized marks in Session 4:

Candidate	Marks	Maths	Physics	Chemistry	Total
C1	Actual Marks	4	1	2	7
	Normalized Marks	6.457	1.97	2.935	11.4
C2	Actual Marks	19	7	9	35
	Normalized Marks	21.75	8.018	9.641	39.4
C3	Actual Marks	13	6	16	35
	Normalized Marks	15.63	7.01	16.35	39
C4	Actual Marks	67	9	24	100
	Normalized Marks	70.69	10.03	24.01	105
C5	Actual Marks	57	8	35	100
	Normalized Marks	60.49	9.025	34.55	104
C6	Actual Marks	80	38	40	158
	Normalized Marks	83.94	39.26	39.34	163

ANNEXURE – V

CRITERIA FOR RANKING (AP EAPCET – 2024 "E CATEGORY")

As per G.O.Ms.No 73 of Higher Education(EC.2) Department, dated 28-07-2011, the candidates who have secured qualifying marks in AP EAPCET-2024 and candidates belonging to the category of Scheduled Caste and Schedule Tribe, for whom qualifying marks have not been prescribed, shall be assigned ranking in the order of merit based on combined score obtained by giving 75% weightage to the marks secured in AP EAPCET-2024 and 25% weightage to the marks secured in the relevant group subjects namely Mathematics, Physics, Chemistry of the qualifying examination.

For the preparation of the merit list, in case of more than one student securing the same combined score obtained as mentioned above, the tie shall be resolved to decide the relative ranking by successively considering the following

- (I) The total marks secured in AP EAPCET-2024
- (II) The Marks secured in mathematics in AP EAPCET-2024
- (III) The marks secured in Physics in AP EAPCET-2024
- (IV) If the tie persists, same rank will be given and the older (based on date of birth) will be given preference over the younger at the time of admissions.

The weightage of marks in the case of candidates belonging to the category of Persons of Indian Origin (PIO) / Overseas Citizen of India (OCI) Card Holders, will be decided by a committee constituted by the competent authority.

AP ENGINEERING COMMON ENTRANCE TEST FOR DIPLOMA HOLDERS AND B.Sc. GRADUATES (with Mathematics as one of the optional subjects) -2024

APECET-2024

(Being conducted on behalf of APSCHE)

INSTRUCTION BOOKLET

CONVENER, APECET-2024

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

ANANTHAPURAMU 515 002

IMPORTANT DATES

1. **Date of Notification:**   **14.03.2024 (Thursday)**

2. **Starting Date of Application Submission:**   **15.03.2024 (Friday)**

3. **Last Date for Application Submission
    Without Fine:**   **15.04.2024 (Monday)**

4. **Last Date for Submission with Rs.500/- Fine:**   **22.04.2024 (Monday)**

5. **Last Date for Submission with Rs.2000/- Fine:**   **29.04.2024 (Monday)**

6. **Last Date for Submission with Rs.5000/- Fine:**   **02.05.2024 (Thursday)**

7. **Hall Ticket Downloading:**   **01.05.2024 (Monday) Onwards**

8. **Date of Examination:**   **08.05.2024 (Wednesday)**

9. **Preliminary Key:**   **10.05.2024 (Friday)**

10. **Final Date for Receiving Objections:**   **12.05.2024 (Sunday)**

1.0. GENERAL

A Common Entrance Test designated in full as Andhra Pradesh Engineering Common Entrance Test for Diploma Holders and for B.Sc.(with Mathematics as one of the optional subjects) Degree Holders and in short as APECET 2024 will be conducted by JNT University Anantapur on behalf of the Andhra Pradesh State Council of Higher Education for the academic year 2024-2025 in accordance with G.O.Ms.No:24 Education (EC) Department dated:18.03.2004, G.O.Ms.No:25, dated:28.06.2006 and G.O.Ms.No:19, dated: 02.02.2008 For Diploma Holders and G.O.Ms.No.57(EC2) dated:12.05.2008 & G.O.Ms.No58(EC2) dated:12.05.2008 for B.Sc.(with Mathematics as one of the optional subjects) degree holders.

(i) For lateral admission into 2nd year regular B.E. and B.Tech. Courses in University engineering colleges to the extent of 10% of over and above sanctioned intake and in All India Council for Technical Education approved Un-Aided Private Professional institutions (Minority & non-Minority) to the extent of 10% of over and above sanctioned intake for Diploma holders and B.Sc. degree holders for the academic year 2024-25.

(ii) For lateral admission into 2nd year regular B. Pharmacy Courses as approved by Pharmacy Council of India in university colleges to the extent of 10% of over and above sanctioned intake and in Un-Aided Private Professional institutions (Minority & non-Minority) to the extent of 10% of over and above sanctioned intake for the seats specifically earmarked for Diploma holders for the academic year 2024-25.The candidates with B.Sc. degree are not eligible for admission into pharmacy course.

2.0. ELIGIBILITY FOR WRITING THE TEST

The Candidates satisfying the following requirements shall be eligible to appear for ECET:

(i) They should be of Indian Nationality.

(ii) They should belong to the State of Andhra Pradesh. The candidates should satisfy local/non-local status requirements as laid down in the Andhra Pradesh Educational Institutions (Regulation of Admission) Order, 1974 as subsequently amended.

(iii) They should have obtained a Diploma in Engineering and Technology/ Pharmacy from the State Board of Technical Education of Andhra Pradesh State or any other Diploma from an AICTE approved institution recognised by the Government of Andhra Pradesh as equivalent thereto for admission into the relevant B.E./ B.Tech./ B. Pharmacy courses into the Courses corresponding to the Diplomas as given in the following Annexure.

(OR)

They should have passed the 3-year B.Sc. Degree examination with Mathematics as one of the subjects in the group combination from a recognized University in the state or its equivalent for entry into relevant courses as given in the following Annexure.

(iv) Candidates who are pursuing a Diploma course shall be eligible for entry into the relevant B.E./B.Tech. / B. Pharmacy courses provided they have completed the prescribed course and passed all the subjects for the award of diploma course before admission into the college.

(v) Candidates should have passed Diploma in Engineering and Technology/ Pharmacy/ B.Sc. Degree with at least 45% marks (40% in case of candidates belonging to BC/SC/ST) for entry into relevant courses.

3.0 ELIGIBILITY FOR LATERAL ENTRY ADMISSION INTO B.E./ B.Tech./ Pharm.:

Candidates should have appeared and qualified at the APECET-2024. Mere appearance at the Entrance Test does not automatically entitle a candidate to be considered for entry into any course unless the candidate satisfies the requirement of eligibility and other criteria laid down in the rules of admission.

Admission to 85% of the seats in each course shall be reserved for the local candidates and the remaining 15% of the seats shall be un-reserved seats as specified in the Andhra Pradesh Educational Institutions (Regulations and Admissions) Order, 1974 as subsequently amended.

The lateral entry seats in case of Un-Aided Private Professional institutions (Minority & non-Minority) are 10% over and above the sanctioned intake into the course. In case of University Colleges the lateral entry seats are 10% over and above the sanctioned intake into the course.

While filling up the lateral entry seats based on the APECET-2024 ranks, B.Sc. (with Mathematics as one of the optional subjects) stream students will be considered for admission only after exhausting all the qualified diploma holders.

3.1. EXPLANATION OF LOCAL AND NON-LOCAL CANDIDATES:

The Local Candidate means:

(A) A candidate for admission shall be regarded as a local candidate in relation to a Local Area:

(a) If he/she has studied in educational Institution or educational Institutions in such local area for a period of not less than four consecutive academic years ending with the academic year in which he/she appeared or as the case may be, first appeared in the relevant qualifying examination, (or)

(b) Where, during the whole or any part of the four consecutive academic years ending with the academic year in which he/she appeared or, as the case may be, first appeared for the relevant qualifying examination, he/she has not studied in any educational Institutions, if he/she has resided in that local area for a period of not less than four years immediately preceding the date of commencement of the relevant qualifying examination in which he/she appeared or, as the case may be, first appeared.

(B) A Candidate for admission to the Course who is not regarded as local candidate under clause (A) in relation to any local area shall be declared local to an area based on following criteria:

(a) If he has studied in educational Institutions in the State for a period of not less than seven consecutive academic years ending with the academic year in which he/she appeared or, as the case may be, first appeared for the relevant qualifying examination be regarded as a local candidate in relation to:

(i) Such local area where he/she has studied for the maximum period out of said period of seven years, (Or)

(ii) Where the period of his/her study in two or more local areas are equal, such local area, where he/she has studied last in such equal period, or If, during the whole or any part of seven consecutive academic years ending with the academic year in which he/she appeared or, as the case may be, first appeared for the relevant qualifying examination, if he/she has not studied in the educational Institutions in any local area, but has resided in the State during the whole of the said period of seven years, be regarded as a local candidate in relation to,-

(i)Such local area where he/she has resided for the maximum period out of the said period of seven years, or
(ii)Where the periods of his/her residence in two or more local areas are equal, such local area where he/she has resided last in such equal periods.

LOCAL STATUS OF STUDENTS MIGRATED FROM TELANGANA TO ANDHRA PRADESH

In terms of G.O.Ms.No.171, General Administration (SPF & MC) Department dated 20-11-2017,

"A candidate who migrates to any part of the State of Andhra Pradesh from the State of Telangana within a period of FIVE years from the 2nd day of June, 2014 shall be regarded as the local candidate in the State of Andhra Pradesh at the place of his residence and be treated at par with the local candidates residing in that area, in accordance with such guidelines as may be issued by the Government of Andhra Pradesh for the purpose of education."

The candidate, who intends to apply for admission into Educational Institutions / Employment as stated above, shall make an application in Form-I online to the Tahsildar concerned, on or before 1s June, 2024, through Mee-Seva portal. Basing on the documents furnished, the Tahsildar shall issue the local status certificate in Form-III.

(C) The following categories of candidates are eligible to apply for admission to the remaining 15% of un-reserved seats:

(a) All the candidates eligible to be declared as local candidates.

(b) Candidates who have resided in the State for a total period of 10 years excluding periods of study outside the State or either of whose parents have resided in the State for a total period of ten years excluding period of employment outside the State.

(c) Candidates who are children of parents who are in the employment of this State or Central Government, Public Sector Corporations, Local Bodies, Universities, and other similar quasi-public Institutions, within the State.

(d) Candidates who are spouses of those in the employment of the State or Central Government, Public Sector Corporations, Local Bodies, Universities and Educational Institutions recognized by the Government or University OR other competent authority and similar quasi–Government Institutions within the State.

4.0 PATTERN OF EXAMINATION

The examination will be for 200 Marks with 200 Objective type questions and the distribution of marks for each stream will be as follows:

ENGINEERING STREAM:

Subject	Maximum Marks	Remarks
Mathematics	50	Common to all branches
Physics	25	Common to all branches
Chemistry	25	Common to all branches
Engineering (Civil/Electrical/Mechanical/ Electronics & Communications/Computer Science/Chemical/Metallurgical/Mining/ Electronics & Instrumentation/ Ceramic Technology/ Biotechnology/Agricultural Engineering as the case may be)	100	Separate Question Paper for Each branch of engineering

PHARMACY STREAM:

Subject	Maximum Marks
Section I: Pharmaceutics	50
Section II: Pharmaceutical Chemistry	50
Section III: Pharmacognosy	50
Section IV: Pharmacology	50

B.Sc. (with Mathematics as one of the optional subjects) STREAM:

Subject	Maximum Marks
Mathematics	100
Analytical Ability	50
Communicative English	50

5.0. Qualifying marks in APECET -2024.

The qualifying percentage marks for obtaining a rank in APECET -2024 is 25% of the aggregate marks in the four subjects (three subjects for B.Sc. Mathematics) i.e., 50 marks out of a total of 200. However, in the case of SC/ST candidates, there shall be no minimum qualifying marks for ranking the candidates.

The rank obtained with the benefit of relaxation of the minimum qualifying marks at the APECET [FDH & B.Sc. (with Mathematics as one of the optional subjects)]-2024 by any candidate claiming to belong to SC/ST category will be cancelled in case the claim is found to be invalid at the time of admission.

6.0. Evaluation and ranking in APECET 2024

a) The student will be ranked based on the marks obtained by him/her in the APECET 2024 Examination.
b) Every care will be taken to avoid errors in valuation, checking, scrutiny, tabulation, and ranking. Hence request for re-totalling and revaluation will in no case be entertained. Candidates will be ranked in the order of merit in APECET 2024, separately in each branch of Engineering Course.
c) As per Government Order, all Diploma holders in any branch of Engineering/Technology, who qualify in APECET 2024 are eligible for admission into B.Tech. Information Technology and Computer Science and Engineering branches. The Integrated Merit Rank is taken into consideration for admission into B.Tech. Information Technology and Computer Science and Engineering branches. The Integrated Merit Rank is based on the total marks obtained in APECET 2024 by candidates with Diploma in any branch of Engineering/Technology.
d) Resolving Tie in Engineering Stream: In case of a tie in aggregate, the marks obtained in Engineering subject, and in case of further tie the marks obtained in the Mathematics subject and if the tie continues, the marks obtained in Physics subject will be taken into account to decide the relative ranking. In case of candidates getting equal marks in each of the four subjects, they will be bracketed for the purpose of award of rank. Age of the candidate will be considered at the time of admission for resolving the tie, the older candidate being given preference.
e) Resolving Tie in Pharmacy Stream: In case of tie the students, who get the same aggregate marks are given same rank and at the time of admission, age will be taken into consideration; the older candidate will be given priority.
f) Resolving Tie in B.Sc.(with Mathematics as one of the optional subjects) Stream : Candidates will be ranked based on the marks obtained in the entrance examination. In case of a tie in aggregate, the marks obtained in Mathematics subject will be considered, and in case of further tie, the students who get the same aggregate marks are given same rank and at the time of admission, age will be taken into consideration; the older candidate will be given priority.

7.0. SUBMISSION OF ONILE APPLICATION

1. For registration and submission of online application the aspiring candidates must visit the web site https://cets.apsche.ap.gov.in/ECET.

2. All the details required such as qualifying examination (diploma or degree as the case may be), hall ticket number, SSC or 10th class hall ticket number, places of study from 6th class onwards, caste category-Mee seva Certificate number, Income certificate-Mee seva certificate number, good quality passport size photograph in .jpg or .jpeg format of 50Kb size, scanned image of Signature affixed with a black pen on a white paper in .jpg or .jpeg format of 30Kb size, Ration card of the family, Aadhar card of self in the application form shall be entered in the specified fields.

3. The Aadhar Card number of the candidate is mandatory.

4. The payment of the registration fee can be done online through AP Online services or Payment Gateway (through Credit Card/Debit Card/ Net banking). The registration fee is Rs.600/- for OC students, 550/- for BC students and 500/- for SC/ST students.

8.0. ELIGIBILITY FOR WRITING VARIOUS APECET - 2024 PAPERS

ELIGIBILITY BRANCHES FOR VARIOUS APECET PAPERS	
ECET ENGINEERING SUBJECT PAPER	**ELIGIBLE DIPLOMA CANDIDATES**
AGRICULTURAL ENGINEERING	AGRICULTURAL ENGINEERING
BIO-TECHNOLOGY	BIOTECHNOLOGY, PHARMACY, CHEMICAL ENGINEERING
CERAMIC TECHNOLOGY	CERAMIC TECHNOLOGY
CHEMICAL ENGINEERING	CERAMIC, LEATHER, TEXTILE, CHEMICAL ENGINEERING, CHEMICAL-PETROCHEMICAL, CHEMICAL-PLASTICS & POLYMERS, CHEMICAL-OIL TECHNOLOGY, CHEMICAL-SUGAR TECHNOLOGY, PETROLEUM TECHNOLOGY, PETROCHEMICAL TECHNOLOGY
CIVIL ENGINEERING	CIVIL, CIVIL-CONSTRUCTION TECHNOLOGY
COMPUTER SCIENCE AND ENGINEERING	COMPUTER ENGINEERING, ELECTRONICS AND COMPUTERS, SPECIAL DIPLOMA IN ELECTRONICS WITH COMPUTERS, INFORMATION TECHNOLOGY, ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING, ANIMATION AND MULTIMEDIA, ARTIFICIAL INTELLIGENCE, 3D ANIMATION AND GRAPHIC ENGINEERING, CLOUD COMPUTING AND BIG DATA ENGINEERING, WEB DESIGNING, COMMUNICATIONS AND COMPUTER NETWORKING

ELECTRONICS AND COMMUNICATION ENGINEERING	ELECTRONICS AND COMMUNICATION ENGINEERING, SPECIAL DIPLOMA IN ELECTRONICS-BIOMEDICAL, TV AND SOUND, INDUSTRIAL ELECTRONICS, COMMUNICATION ENGG, EMBEDDED SYSTEMS, APPLIED ELECTRONICS AND INSTRUMENTATION, ELECTRONICS AND INSTRUMENTATION, ELECTRONICS AND TELEMATICS
ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND ELECTRONICS ENGINEERING
ELECTRONICS AND INSTRUMENTATION ENGINEERING	ELECTRONICS AND INSTRUMENTATION, SPECIAL DIPLOMA IN ELECTRONICS-INDUSTRIAL ELECTRONICS, APPLIED ELECTRONICS AND INSTRUMENTATION
MECHANICAL ENGINEERING	MECHANICAL ENGINEERING, AUTOMOBILE ENGINEERING, FOOTWEAR TECHNOLOGY, INDUSTRIAL ENGINEERING, INDUSTRIAL PRODUCTION ENGINEERING, JEWELLARY DESIGN AND MANUFACTURING, MECHANICAL ENGINEERING (SANDWICH), PACKAGING TECHNOLOGY, PRINTING TECHNOLOGY, AERONAUTICAL ENGINEERING, REFREGIRATION AND AIR CONDITIONING
METALLURGICAL ENGINEERING	METALLURGICAL ENGINEERING
MINING ENGINEERING	MINING ENGINEERING, INDUSTRIAL ENGINEERING, MECHANICAL ENGINEERING, INDUSTRIAL PRODUCTION ENGINEERING
PHARMACY	PHARMACY
B.SC	B.Sc. WITH MATHEMATICS AS ONE OF THE OPTIONAL SUBJECTS

9.0. ORDER OF PREFERENCE WHILE GIVING ADMISSIONS

The following order of preference shall be observed in considering Diploma Holders for admission into various courses:

(1) For admission into Degree programme in Information Technology and Computer Science and Engineering, first preference will be given to candidates who have obtained the Diploma in Information Technology and Computer Science and Engineering respectively. Any seats still vacant shall be filled with candidates who have obtained their Diploma in any branch of Engineering / Technology based on their integrated merit ranking.

(2) For admission into Degree programme in Textile Technology, candidates who have obtained their Diploma in Textile Technology (Design & Manufacturing) and Textile Technology (Knitting) must necessarily have completed their Intermediate or equivalent with Mathematics, Physics and Chemistry as compulsory subjects.

(3) For admission into Degree programme in Biotechnology, first preference will be given to candidates who have obtained the Diploma in Biotechnology. Any seats still vacant shall be filled with candidates who have obtained their Diploma in Pharmacy or Chemical Engineering in the ratio of 1:1 respectively.

(4) Diploma Holders of Special Diploma course in Industrial Electronics & Instrumentation Engineering / Diploma Holders in Electronics & Instrumentation Engineering must appear for APECET Examination in Electronics & Instrumentation Engineering only (EIE) for admission into Instrumentation Engineering (IE) / Electronics & Instrumentation Engineering (EIE) / Applied Electronics & Instrumentation Engineering / Instrumentation Control Engineering courses.

(5) The qualified candidates from B.Sc. degree holders will be considered for admission, only after exhausting all branches of Diploma holders vide GO.Ms. No. 49.

10.0. TEST CENTRES FOR APECET-2024

APECET 2024 TEST CENTRES ARE AVAILABLE IN WEB APPLICATION.TEST CENTRE ALLOCATION WILL BE MADE ON FIRST COME FIRST SERVED BASIS.NO GAURANTEE CAN BE GIVEN THAT THE APPLICANT WILL BE ALLOTTED HIS FIRST CHOICE.

11.0. GENERAL INSTRUCTIONS TO THE STUDENTS

1. All the candidates shall take utmost care while submitting the online application.
2. The APECET 2024 will be conducted online only and the candidates willing to appear are requested to get acquainted with the online Examination Process through practicing mock tests.
3. All the photographs submitted with the application must be identical. Otherwise, Hall Tickets will not be issued. Such applications will be summarily rejected.
4. Candidates are not admitted to the examination after 9.00 A.M. and not permitted to leave the Examination Hall before 12.00 P.M in the Morning Session. Similarly, Candidates are not admitted to the examination after 2.30 P.M. and not permitted to leave the Examination Hall before 5.30 P.M in the Afternoon Session.
5. It is the responsibility of the candidates to ensure that they are answering the correct Question Paper of the branch for which they are eligible for admission (For Diploma Holders only).
6. Question paper will be in English only.
7. Any malpractice case will be dealt with as per rules of CETs in force.
8. The Online Answer Script images of APECET 2024 will be preserved for six months from the date of publication of results after which time they shall be disposed.
9. In any litigation concerning APECET 2024, the parties to be impleaded are Secretary, A.P. State Council of Higher Education, Mangalagiri and the Convener, APECET 2024. If the litigation is concerned with any issue related to Admissions based on APECET 2024, the parties to be impleaded are Secretary, A.P. State Council of Higher Education, Mangalagiri and the Convener (Admissions), APECET 2024.
10. Any litigation concerning APECET 2024 shall be within the jurisdiction of the High Court of Andhra Pradesh only.

AP ICET-2024

ANDHRA PRADESH INTEGRATED COMMON ENTRANCE TEST-2024 FOR ADMISSION INTO MBA & MCA

(CONDUCTED BY SRI KRISHNADEVARAYA UNIVERSITY ON BEHALF OF APSCHE)

INSTRUCTION BOOKLET FOR REGISTRATION

FEE FOR ONLINE TEST IS RS. 650/- (OC); RS.600/- (BC); Rs.550/- (SC/ST) CANDIDATES

Introduction:

Andhra Pradesh Integrated Common Entrance Test (AP ICET-2024) is conducted by Sri Krishnadevaraya University on behalf of A.P. State Council of Higher Education for admission into

- First year of Master of Business Administration (MBA) and Master of Computer Applications (MCA) in university constituent and affiliated colleges for the academic year 2024-25.

Eligibility to appear for AP ICET-2024:

a) The candidates seeking admission should be Indian Nationals and should satisfy local/non-local status requirements laid down in the Andhra Pradesh Educational Institutions (Regulations of Admission) Order, 1974 as amended.

b) The candidates shall satisfy the rules of the concerned universities where they take admission.

c) The candidates seeking admission –

- Should have studied and passed 3/4 year Degree course in any faculty conducted by the Universities or its equivalent Degree Examination in 10 + 2 + 3/4 pattern as recognized by U.G.C. (University Grants Commission). **For recognized universities please log on to https://www.ugc.ac.in/recog_College.aspx For degrees / Universities permitted by distance education bureau, please log on to https://www.ugc.ac.in/deb and follow the link for Recognition information.**
- **MBA** – Degree of 3/4 years duration from any recognized University or its equivalent.
- **MCA** – Degree of 3/4 years duration with "Mathematics" as one of the subject at Intermediate or Degree level.

Note: Candidate who passed all the subjects of the three years of any Degree course in one sitting is not eligible for admission into MBA or MCA Course.

1. Candidate with aggregate marks of 50% (45% in case of reserved categories –SC, ST and BC) are alone eligible to take admission through APICET.

2. Candidates shall fulfil the eligibility criteria laid down in relevant Government Orders in vogue at the time of admissions.

3. The qualifying Degree obtained by Distance Mode Program should have recognition by Joint Committee of UGC, AICTE and DEC/DEB.

4. The candidates who are appearing for the final year degree examination shall also be eligible to appear for AP ICET-2024.

Applying for AP ICET-2024:

- The candidates who satisfy eligibility criteria stated above can apply for AP ICET-2024 by filling an application online only through web site **https://cets.apsche.ap.gov.in.** Detailed information for filling the online application is given in user manual available in the portal.
- The schedule of receiving application is given on the first page under "Important Dates".
- The test is scheduled to be held at the following centres and the candidates can choose 3 to 4 centres from the following centres.

S. No	District	Locations
1	Anakapalli	Anakapalli
2	Anantapur	Anantapur, Gooty, Tadipatri
3	Annamayya	Madanapalle, Rajampeta
4	Bapatla	Bapatla, Chirala
5	Chittoor	Chittoor
6	Dr.B.R.Ambedkar Konasema	Amalapuram
7	East Godavari	Rajahmundry
8	Eluru	Eluru
9	Guntur	Guntur
10	Hyderabad	LB Nagar, Nacharam, Secunderabad

11	Kakinada	Kakinada
12	Krishna	Gudlavalleru, Machilipatnam
13	Kurnool	Kurnool, Yemmiganur
14	Nandyal	Nandyal
15	NTR	Mylavaram, Tirvuru, Vijayawada
16	Palnadu	Narasaraopeta
17	Prakasam	Markapuram, Ongole
18	Tirupati	Gudur, Puttur, Tirupati
19	Sri Satyasai	Puttaparthi
20	Sri Potti Sri Ramulu Nellore	Kavali, Nellore
21	Srikakulam	Srikakulam, Tekkali
22	Visakhapatnam	Anandapuram, Gajuwaka, Visakhapatnam
23	Vizianagaram	Bobbili, Rajam, Vizianagaram
24	West Godavari	Bhimavaram, Narasapuram, Tadepalligudem
25	YSR Kadapa	Kadapa, Proddatur

- **However, Convener reserves the right to allot candidates to any other centre(s) in unavoidable circumstances.**
- **The Convener is permitted to add or delete test centres depending on viability by obtaining approval form the Chairman, AP ICET-2024**
- **The test will be conducted on <u>06-05-2024 (Monday) and 07-05-2024 (Tuesday)</u> in two sessions each day from <u>09:00 AM to 11:30 AM & 02.30 PM to 05:00 PM</u>. Candidates applied for the test can be allotted to any of the sessions.**
- **MEDIUM OF TEST: For Section-B, Examination will be held only in English medium, whereas for Section A & Section C, the examination will be held in both English and Telugu mediums.**

About AP ICET-2024:

GENERAL INFORMATION: The test is designed to measure the candidate's ability to think systematically, to use the verbal & mathematical skills and to assess his/her aptitude for admission into MBA/MCA programme. The test emphasizes accuracy. Therefore, the candidate is required to go through the instructions carefully. This is an objective type test and the questions are of multiple choice. Out of the given options, the candidate has to choose the correct answer.

PATTERN OF THE TEST: The test consists of **200** questions of one mark each on the following topics.

Details	No. of Questions	Total Question	Remarks
Section-A: Analytical Ability			
1. Data Sufficiency	20	75	
2. Problem Solving	55		
Section-B: Communication Ability			
1. Vocabulary	15	70	DURATION OF THE TEST IN 150 MINUTES
2. Functional Grammar	20		
3. Business and Computer Terminology	15		
4. Reading Comprehension	20		
Section-C: Mathematical Ability			
1. Arithmetical Ability	35	55	
2. Algebraical and Geometrical Ability	10		
3. Statistical Ability	10		
TOTAL	200 Marks	200 Questions	

SYLLABUS CONTENT OF THE TEST:

Section-A: Analytical Ability:

1. Data Sufficiency: A question is given followed by data in the form of two statements labeled as (i) and (ii). If the data given in (i) alone is sufficient to answer the question then choice (1) is the correct answer. If the data given in (ii) alone is sufficient to answer the question then choice (2) is the correct answer. If both (i) and (ii) put together are sufficient to answer the

question but neither statement alone is sufficient, then choice (3) is the correct answer. If both (i) and (ii) put together are not sufficient to answer the question and additional data is needed, then choice (4) is the correct answer.

2. Problem Solving

a) **Sequences and Series:** Analogies of numbers and alphabet, completion of blank spaces following the pattern in a:b::c:d relationship; odd thing out: missing number in a sequence or a series.

b) **Data Analysis:** The data given in a Table, Graph, Bar diagram, Pie Chart, Venn Diagram or a Passage is to be analyzed and the questions pertaining to the data are to be answered.

c) **Coding and Decoding Problems:** A code pattern of English Alphabet is given. A given word or a group of letters are to be coded or decoded based on the given code or codes.

d) **Date, Time & Arrangement Problems:** Calendar problems, clock problems, blood relationships, arrivals, departures and schedules, seating arrangements, symbol and notation interpretation.

Section-B: Communication Ability:

Objectives of the Test: Candidates will be assessed on the ability to:

1. Identify vocabulary used in the day-to-day communication **(Vocabulary)**.
2. Understand the functional use of grammar in day-to-day communication as well as in the business contexts **(Functional Grammar)**.
3. Identify the basic terminology and concepts in computer and business contexts (letters, reports, memoranda, agenda, minutes etc. **(Business and Computer terminology)**.
4. Understand written text and drawing inferences **(Reading Comprehension (4 Passages))**.

Section -C: Mathematical Ability

I. Arithmetical Ability:

Laws of indices, ratio and proportion; surds; numbers and divisibility, l.c.m. and g.c.d; Rational numbers, Ordering; Percentages; Profit and loss; Partnership, Pipes and cisterns, time, distance and work problems, areas and volumes, mensuration, modular arithmetic.

II. Algebraical and Geometrical Ability:

Statements, Truth tables, implication converse and inverse, Tautologies-Sets, Relations and functions, applications - Equation of a line in different forms.

Trigonometry - Trigonometric ratios, Trigonometric ratios of standard angles, (0°, 30°, 45°, 60°, 90°, 180°): Trigonometric identities: sample problems on heights and distances, Polynomials; Remainder theorem and consequences; Linear equations and expressions; Progressions, Binomial Theorem, Matrices, Notion of a limit and derivative; Plane geometry - lines, Triangles, Quadrilaterals, Circles, Coordinate geometry-distance between points.

III. Statistical Ability:

Frequency distributions, Mean, Median, Mode, Standard Deviation, Correlation, simple problems on Probability.

PREPARATION OF MERIT LIST AND ASSIGING OF RANK IN AP ICET-2024:

➢ The candidates who have secured 25% marks in AP ICET-2024 (50 out of 200) and candidates belonging to the category of SC and ST to whom qualifying marks have not been prescribed, shall be assigned rank in the order of the merit on the basis of marks obtained in ICET.

➢ For the preparation of merit list, in case more than one student scoring the same marks at AP ICET-2024, the tie will be resolved as follows:

i) By considering the marks scored in Section-A

ii) If the tie persists, marks obtained by a student in Section-B will be taken into consideration.

iii) If the tie persists, the tie will be resolved by taking the age of the candidate into account and giving the older candidate priority.

➢ Ranks obtained in AP ICET-2024 are valid only for 2024-25 academic year admissions into the various universities, constituent and affiliated colleges in the State of Andhra Pradesh.

➢ All disputes arising out of any matter concerning to AP ICET-2024 shall be subject to the jurisdiction of High Cour4 of AP, Amaravati only, in such disputes, only the Convener, APICET-2024 and the Secretary, APSCHE can be impleaded as respondents.

NORMALIZATION OF SCORES

> AP ICET-2024 is being conducted in two sessions based on the same syllabus, same pattern for candidates having same eligibility criteria. A candidate will be eligible to appear only in one session. Since the question paper will be different for each session, there is a possibility that the candidates compare themselves about the variation in the difficulty level of questions. However, it may be noted that utmost care will be taken so that all the papers are of same standard. Further, it is decided to adopt a normalization process to eliminate any such variations in the difficulty level of various sessions.

What is Normalization?

Normalization, as used in Indian context, is a process for ensuring the students neither advantaged nor disadvantaged by the difficulty of examinations conducted in multiple sessions. This process is based on a simple formula which has been adopted as it is recommended by the experts from reputed educational institutions at all National level and Universities level. The same process is being implemented in other State / Nation level entrance tests, for admission into undergraduate and graduate professional courses. Normalization process ranks all the candidates across all sessions on a comparative scale. In any normalization process, the marks of the easier session may be reduced marginally and the marks of the harder paper may increase marginally on the global level, depending on the average performance in each session. If there is no much difference in the averages between two sessions then there won't be much difference in the normalized marks as well. Normalizing marks would justify the candidates while protecting their actual performance.

AP ICET Marks Normalization Process:

> The main aim of the normalization is to justify the candidates who got a difficult paper compared to an easier paper. Hence, the task is to rationalize in a best possible sense and rank the candidates based on the global performance. Various national level examination bodies like CAT, JEE (Main), GATE etc. are currently adopting such normalization procedures. Correspondingly, Committee on normalization has deliberated extensively and decided to use the following normalization procedure.

- **SMS:** (Average + Standard Deviation) of the session in which the candidate belongs to.
- **GMS:** (Average + Standard Deviation) of all the candidates across all sessions together.
- **Top Average Session:** Average marks of the top 0.1% of the candidates in the session in which the candidate belongs to.
- **Top Average Global:** Average marks of the top 0.1% of all the candidates across all sessions together

Notes:

> For the candidates for whom there is no qualifying cut off in AP ICET-2024, if the marks in AP ICET-2024 go below zero (negative) after normalization, the total marks will be treated as zero and the ranks are assigned based on those marks. If tie persists, then AP ICET-2024 normalization marks will be considered for breaking the tie.

GENERAL INFORMATION / INSTRUCTIONS:

1. The Convener and the chairman, APICET-2024 reserve the right to reject the application of a candidate at any stage, if A) the application is incomplete. B) the candidate fails to satisfy the prescribed eligibility conditions. C) False or incorrect information is furnished.
2. Any change whatsoever, including that of caste/community status or category, shall not be permitted after submission of application. No correspondence will be entertained in this regard.
3. The Convener is not responsible for the non-submission of application by the notified date and time for any reason whatsoever.
4. The Candidate should preserve the hall ticket to produce it at the time of test and later at the time of entry into the course.
5. Applicants should download hall tickets from website **https://cets.apsche.ap.gov.in** only.
6. The appearance at AP ICET-2024 does not entitle any candidate to be considered for entry into the course automatically.
7. The rank obtained with the benefit of relaxation of minimum qualifying marks at the AP ICET-2024 by any candidate, claiming to belong to SC/ST category, will be cancelled in case the claim is found to be invalid at any point of time.
8. The selection of candidates and allotment to colleges will be on the basis of rank obtained at the Common Entrance Test and other conditions laid down.

9. Candidates will not be permitted to exam hall after the scheduled time on the date of entrance test.
10. **<u>Candidates are advised to practice the mock tests placed in the website</u>** and familiarize with the mode of attempting the online test.

AP POSTGRADUATE ENGINEERING COMMON ENTRANCE TEST -2024

APPGECET-2024

(Conducted on behalf of APSCHE)

ANDHRAPRADESH STATE COUNCIL FOR HIGHER EDUCATION

INSTRUCTION BOOKLET

CONVENER, APPGECET-2024
SRI VENKATESWARA UNIVERSITY,TIRUPATI-517502

APPGECET-2024 Proposed Activity Schedule (Examination)

S.No.	Particulars	Dates & Timings	
1	Date of Notification	17-03-2024	
2	Commencement of receiving of online application forms	23-03-2024	
3	Last date for receiving of online applications without late fee	20-04-2024	
4	Last date for receiving of online applications with late fee of Rs.500/-	21-04-2024 to 28-04-2024	
5	Last date for receiving of online applications with late fee of Rs.2,000/-	29-04-2024 to 05-05-2024	
6	Last date for receiving of online applications with late fee of Rs.5,000/-	06-05-2024 to 12-05-2024	
7	Correction of online application data already submitted by the candidate	08-05-2024 to 14-05-2024	
8	Downloading of Hall-Tickets from the website	22-05-2024	
9	**Date of Tests**	**29-05-2024 to 31-05-2024**	
10	**Time of Tests**	**09.00 AM to 11.00 AM & 02.30 PM to 04.30 PM**	
11	Declaration of Preliminary Key	<u>Exam Date</u> 29-05-2024 30-05-2024 31-05-2024	<u>Key Release</u> 31-05-2024@5PM 01-06-2024@5PM 02-06-2024@5PM
12	Last Date for receiving of objections on Preliminary Key	<u>Exam Date</u> 29-05-2024 30-05-2024 31-05-2024	<u>Objections Closing</u> 02-06-2024@5PM 03-06-2024@5PM 04-06-2024@5PM
13	Declaration of Ranks	28-06-2024 (Tentative)	

1.0.   GENERAL

A Common Entrance Test designated in full as Andhra Pradesh Postgraduate Engineering Common Entrance Test and in short as APPGECET-2024 will be conducted by Sri Venkateswara University, Tirupati, on behalf of the Andhra Pradesh State Council of Higher Education (APSCHE) for the academic year 2024-25 in accordance with G.O.Ms.No:54 Education (EC-2) Department dated: 21.06.2007 and its amendments for admission into M.Tech./M.Pharm./Pharm.D(PB) courses in University Engineering / Pharmacy colleges and their affiliated colleges approved by All India Council for Technical Education for the academic year 2024-25.

2.0.   ELIGIBILITY FOR WRITING THE TEST

The Candidates satisfying the following requirements shall be eligible to appear for APPGECET:

(i)   They should be of Indian Nationality.

(ii)   They should belong to the State of Andhra Pradesh. The candidates should satisfy local/non-local status requirements as laid down in the Andhra Pradesh Educational Institutions (Regulation of Admission) Order, 1974 as subsequently amended.

(iii)   They should have obtained a relevant Bachelors qualifying degree or its equivalent in the relevant field with at least 50% marks (45% in case of reserved category candidates) from an AICTE/UGC approved institution recognised by the Government of Andhra Pradesh as equivalent thereto for admission into the relevant M.Tech./ M.Pharmacy/Pharm.D(PB) courses into the courses corresponding to the Degrees as given in the following Annexure.

(iv)   Candidates who are pursuing a B.Tech or its equivalent / B.pharm. courses shall be eligible for entry into the relevant M.Tech./ M.Pharmacy/Pharm.D(PB) courses provided they have completed the prescribed course and passed all the subjects for the award of degree by the concerned university on or before the date of counselling for admission into the colleges.

3.0 ELIGIBILITY FOR ADMISSION INTO M.Tech./ M.Pharm./Pharm.D(PB) :

Candidates should have appeared and qualified at the APPGECET-2024 in the test paper relevant to the course in which the admission is sought. A list of courses offered by the Universities and the relevant qualifications and test paper to appear at APPGECET-2024 are shown in the Annexure. **Candidates are advised to refer the table before applying for a test paper. Mere appearance at the Entrance Test does not automatically entitle a candidate to be considered for entry into any course unless the candidate satisfies the requirement of eligibility and other criteria laid down in the rules of admission.**

Admission to 85% of the seats in each course shall be reserved for the local candidates and the remaining 15% of the seats shall be un-reserved seats as specified in the Andhra Pradesh Educational Institutions (Regulations and Admissions) Order, 1974 as subsequently amended.

While filling up the seats in colleges, first preference will be given to candidates qualified in GATE / GPAT in the relevant branch based on their test scores and the remaining seats with the candidates qualified in APPGECET-2024 as per their merit ranks.

3.1. EXPLANATION OF LOCAL AND NON-LOCAL CANDIDATES:

The Local Candidate means:

(A)   A candidate for admission shall be regarded as a local candidate in relation to a Local Area:

(a) If he/she has studied in educational Institution or educational Institutions in such local area for a

period of not less than four consecutive academic years ending with the academic year in which he/she appeared or as the case may be, first appeared in the relevant qualifying examination.

(or)

(b) Where, during the whole or any part of the four consecutive academic years ending with the academic year in which he/she appeared or, as the case may be, first appeared for the relevant qualifying examination, he/she has not studied in any educational Institutions, if he/she has resided in that local area for a period of not less than four years immediately preceding the date of commencement of the relevant qualifying examination in which he/she appeared or, as the case may be, first appeared.

(B)   A Candidate for admission to the Course who is not regarded as local candidate under clause (A) in relation to any local area shall be declared local to an area based on following criteria:

(a) If he has studied in educational Institutions in the State for a period of not less than seven consecutive academic years ending with the academic year in which he/she appeared or, as the case may be, first appeared for the relevant qualifying examination be regarded as a local candidate in relation to:

   (i)   Such local area where he/she has studied for the maximum period out of said period of seven years.

(or)

   (ii)   Where the period of his/her study in two or more local areas are equal, such local area, where he/she has studied last in such equal period, or If, during the whole or any part of seven consecutive academic years ending with the academic year in which he/she appeared or, as the case may be, first appeared for the relevant qualifying examination, if he/she has not studied in the educational Institutions in any local area, but has resided in the State during the whole of the said period of seven years, be regarded as a local candidate in relation to,-

(b)
   (i) Such local area where he/she has resided for the maximum period out of the said period of seven years.

(or)

   (ii) Where the periods of his/her residence in two or more local areas are equal, such local area where he/she has resided last in such equal periods.

(C) The following categories of candidates are eligible to apply for admission to the remaining 15% of un-reserved seats:

   (i)   All the candidates eligible to be declared as local candidates.
   (ii) Candidates who have resided in the State for a total period of 10 years excluding periods of study outside the State or either of whose parents have resided in the State for a total period of ten years excluding period of employment outside the State.
   (iii) Candidates who are children of parents who are in the employment of this State or Central Government, Public Sector Corporations, Local Bodies, Universities and other similar quasi-public Institutions, within the State.
   (iv) Candidates who are spouses of those in the employment of the State or Central Government, Public Sector Corporations, Local Bodies, Universities and Educational Institutions recognized by the Government or University OR other competent authority and similar quasi Government Institutions within the State.

LOCAL STATUS OF STUDENTS MIGRATED FROM TELANGANA TO ANDHRA PRADESH

In terms of G.O.Ms.No.171, General Administration (SPF & MC) Department dated 20-11-2017,

"A candidate who migrates to any part of the State of Andhra Pradesh from the State of Telangana within a period of FIVE years from the 2nd day of June, 2014 shall be regarded as the local candidate in the State of Andhra Pradesh at the place of his residence and be treated at par with the local candidates residing in that area, in accordance with such guidelines as may be issued by the Government of Andhra Pradesh for the purpose of education."

The candidate, who intends to apply for admission into Educational Institutions / Employment as stated above, shall make an application in Form-I online to the Tahsildar concerned, on or before 1st June, 2024, through Mee-Seva portal/ Sachivalayam. Basing on the documents furnished, the Tahsildar shall issue the local status certificate in Form-III.

For details refer the document in Home Page.

4.0 SYLLABUS AND PATTERN OF TEST

The test will be a Computer based test wherein the candidate has to answer them online. The test will be in English medium and will be conducted for 120 Marks with 120 multiple choice Objective type questions. There is no negative marking for the wrong answers.

Syllabus for different subject papers are placed in the home page under the link **SYLLABUS.**

Candidates are advised to be well conversant with the Computer based test by practicing the mock tests made available in the home page of APPGECET-2024 .

5.0. Qualifying marks in APPGECET-2024 .

The qualifying percentage marks for obtaining a rank in APPGECET-2024 is 25% i.e., 30 marks out of a total of 120. However, in the case of SC/ST candidates, there shall be no minimum qualifying marks for ranking the candidates.

The rank obtained with the benefit of relaxation of the minimum qualifying marks at the APPGECET-2024 by any candidate claiming to belong to SC/ST category will be cancelled in case the claim is found to be invalid at the time of admission.

6.0 SUBMISSION OF ONLINE APPLICATION

1. **For registration and submission of online application the aspiring candidates have to visit the web site https://sche.ap.gov.in/pgecet**

2. **All the details required such as qualifying examination (degree as the case may be) hall ticket number, SSC or 10th class hall ticket number, places of study from 9th class onwards, caste category-Mee seva Cerificate number, Income certificate-Meeseva certificate number, good quality passport size photograph in .jpg or .jpeg format of 50KB size, scanned image of Signature affixed with a black pen on a white paper in .jpg or .jpeg format of 30KB size, Ration card of the family, Aadhar card of self in the application form shall be entered in the specified fields.**

3. **The Aadhaar Card number of the candidate is mandatory.**

4. **The payment of the registration fee can be done online through APOnline services or Payment Gateway provided (through Credit Card/Debit Card/ Net banking).**

5. **CANDIDATES DESIROUS OF APPEARING FOR MORE THAN ONE TEST PAPER AT APPGECET-2024 SHALL REGISTER FOR ALL THE PAPERS HE/SHE WISHES TO APPEAR AT APPGECET-2024 IN THE SAME APPLICATION ONLY AND SHALL PAY THE AMOUNT DISPLAYED.**

7.0. ELIGIBILITY FOR WRITING VARIOUS APPGECET - 2024 PAPERS

QUALIFYING DEGREE	SPECIALIZATION IN QUALIFYING DEGREE CODE	SPECIALIZATION IN QUALIFYING DEGREE	AP PGECET TEST PAPER CODE	APPGECET TEST PAPER
AMICHE	CHE	CHEMICAL ENGINEERING	BT	BIOTECHNOLOGY
AMICHE	CHE	CHEMICAL ENGINEERING	CH	CHEMICAL ENGINEERING
AMICHE	CHE	CHEMICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMICHE	CHE	CHEMICAL ENGINEERING	NT	NANO TECHNOLOGY
AMICHE	CHE	CHEMICAL ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	AGR	AGRICULTURAL ENGINEERING	BT	BIOTECHNOLOGY
AMIE+DIPLOMA	AGR	AGRICULTURAL ENGINEERING	FT	FOOD TECHNOLOGY
AMIE+DIPLOMA	AGR	AGRICULTURAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	AGR	AGRICULTURAL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	AGR	AGRICULTURAL ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	ANE	AERONAUTICAL ENGINEERING	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	ANE	AERONAUTICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	ANE	AERONAUTICAL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	ANE	AERONAUTICAL ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	APE	APPLIED PETROLEUM ENGINEERING	CH	CHEMICAL ENGINEERING
AMIE+DIPLOMA	APE	APPLIED PETROLEUM ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	APE	APPLIED PETROLEUM ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	APE	APPLIED PETROLEUM ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	ARC	ARCHITECTURAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	ASE	AEROSPACE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	ASE	AEROSPACE ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	ASE	AEROSPACE ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	AUT	AUTOMOBILE ENGINEERING	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	AUT	AUTOMOBILE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING

AMIE+DIPLOMA	AUT	AUTOMOBILE ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	AUT	AUTOMOBILE ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	BT	BIOTECHNOLOGY
AMIE+DIPLOMA	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	CH	CHEMICAL ENGINEERING
AMIE+DIPLOMA	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	BIN	BIOINFORMATICS	BT	BIOTECHNOLOGY
AMIE+DIPLOMA	BIN	BIOINFORMATICS	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	BIN	BIOINFORMATICS	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	BIN	BIOINFORMATICS	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	BIO	BIOTECHNOLOGY	BT	BIOTECHNOLOGY
AMIE+DIPLOMA	BIO	BIOTECHNOLOGY	FT	FOOD TECHNOLOGY
AMIE+DIPLOMA	BIO	BIOTECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	BIO	BIOTECHNOLOGY	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	BIO	BIOTECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	BME	BIOMEDICAL ENGINEERING	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
AMIE+DIPLOMA	BME	BIOMEDICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	BME	BIOMEDICAL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	BME	BIOMEDICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	CCT	CIVIL CONSTRUCTION TECHNOLOGY	CE	CIVIL ENGINEERING
AMIE+DIPLOMA	CCT	CIVIL CONSTRUCTION TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	CCT	CIVIL CONSTRUCTION TECHNOLOGY	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	CCT	CIVIL CONSTRUCTION TECHNOLOGY	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	CEE	CIVIL ENVIRONMENTAL ENGINEERING	CE	CIVIL ENGINEERING
AMIE+DIPLOMA	CEE	CIVIL ENVIRONMENTAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	CEE	CIVIL ENVIRONMENTAL ENGINEERING	NT	NANO TECHNOLOGY

AMIE+DIPLOMA	CEE	CIVIL ENVIRONMENTAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	CHE	CHEMICAL ENGINEERING	BT	BIOTECHNOLOGY
AMIE+DIPLOMA	CHE	CHEMICAL ENGINEERING	CH	CHEMICAL ENGINEERING
AMIE+DIPLOMA	CHE	CHEMICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	CHE	CHEMICAL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	CHE	CHEMICAL ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	CIV	CIVIL ENGINEERING	CE	CIVIL ENGINEERING
AMIE+DIPLOMA	CIV	CIVIL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	CIV	CIVIL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	CIV	CIVIL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	CSE	COMPUTER SCIENCE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	CSE	COMPUTER SCIENCE ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	CSE	COMPUTER SCIENCE ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	CSS	COMPUTER SCIENCE AND SYSTEMS ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	CSS	COMPUTER SCIENCE AND SYSTEMS ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	CSS	COMPUTER SCIENCE AND SYSTEMS ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	DRG	DAIRY TECHNOLOGY	FT	FOOD TECHNOLOGY
AMIE+DIPLOMA	DRG	DAIRY TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	DRG	DAIRY TECHNOLOGY	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	DRG	DAIRY TECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	EC	ELECTRONICS AND COMMUNICATION ENGINEERING

AMIE+DIPL OMA	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	EI	INSTRUMENTATION
AMIE+DIPLO MA	ECM	ELECTRONICS AND COMPUTER ENGINEERING	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
AMIE+DIPLO MA	ECM	ELECTRONICS AND COMPUTER ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLO MA	ECM	ELECTRONICS AND COMPUTER ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLO MA	ECM	ELECTRONICS AND COMPUTER ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPL OMA	ECS	ELECTRONICS AND CONTROL SYSTEMS	EI	INSTRUMENTATION
AMIE+DIPL OMA	ECS	ELECTRONICS AND CONTROL SYSTEMS	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPL OMA	ECS	ELECTRONICS AND CONTROL SYSTEMS	NT	NANO TECHNOLOGY
AMIE+DIPL OMA	ECS	ELECTRONICS AND CONTROL SYSTEMS	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLO MA	EE	ELECTRICAL ENGINEERING	EE	ELECTRICAL ENGINEERING
AMIE+DIPLO MA	EE	ELECTRICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLO MA	EE	ELECTRICAL ENGINEERING	EI	INSTRUMENTATION
AMIE+DIPLO MA	EE	ELECTRICAL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLO MA	EE	ELECTRICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLO MA	EEE	ELECTRICAL AND ELECTRONICS ENGINEERING	EE	ELECTRICAL ENGINEERING
AMIE+DIPL OMA	EEE	ELELCTRICAL AND ELECTRONICS ENGINEERING	EI	INSTRUMENTATION
AMIE+DIPLO MA	EEE	ELECTRICAL AND ELECTRONICS ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLO MA	EEE	ELECTRICAL AND ELECTRONICS ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLO MA	EEE	ELECTRICAL AND ELECTRONICS ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPL OMA	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
AMIE+DIPL OMA	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	EI	INSTRUMENTATION
AMIE+DIPL OMA	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLO MA	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	NT	NANO TECHNOLOGY

AMIE+DIPLOMA	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	ELE	ELECTRONICS	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
AMIE+DIPLOMA	ELE	ELECTRONICS	EI	INSTRUMENTATION
AMIE+DIPLOMA	ELE	ELECTRONICS	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	ELE	ELECTRONICS	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	ELE	ELECTRONICS	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	ETM	ELECTRONICS AND TELEMATICS	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
AMIE+DIPLOMA	ETM	ELECTRONICS AND TELEMATICS	EI	INSTRUMENTATION
AMIE+DIPLOMA	ETM	ELECTRONICS AND TELEMATICS	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	ETM	ELECTRONICS AND TELEMATICS	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	ETM	ELECTRONICS AND TELEMATICS	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	BT	BIOTECHNOLOGY
AMIE+DIPLOMA	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	FT	FOOD TECHNOLOGY
AMIE+DIPLOMA	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	GIN	GEO-INFORMATICS	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	GIN	GEO-INFORMATICS	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	GIN	GEO-INFORMATICS	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	GSE	GEOSCIENCE ENGINEERING	CH	CHEMICAL ENGINEERING
AMIE+DIPLOMA	GSE	GEOSCIENCE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	GSE	GEOSCIENCE ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	GSE	GEOSCIENCE ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS

AMIE+DIPLOMA	IBT	INDUSTRIAL BIOTECHNOLOGY	BT	BIOTECHNOLOGY
AMIE+DIPLOMA	IBT	INDUSTRIAL BIOTECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	IBT	INDUSTRIAL BIOTECHNOLOGY	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	IBT	INDUSTRIAL BIOTECHNOLOGY	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	ICE	INSTRUMENTATION CONTROL ENGINEERING	EI	INSTRUMENTATION
AMIE+DIPLOMA	ICE	INSTRUMENTATION CONTROL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	ICE	INSTRUMENTATION CONTROL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	ICE	INSTRUMENTATION CONTROL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	INE	INDUSTRIAL ENGINEERING	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	INE	INDUSTRIAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	INE	INDUSTRIAL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	INE	INDUSTRIAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	INF	INFORMATION TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	INF	INFORMATION TECHNOLOGY	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	INF	INFORMATION TECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	IPE	INDUSTRIAL PRODUCTION ENGINEERING	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	IPE	INDUSTRIAL PRODUCTION ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	IPE	INDUSTRIAL PRODUCTION ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	IPE	INDUSTRIAL PRODUCTION ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	IST	INSTRUMENTATION TECHNOLOGY/ENGINEERING	EI	INSTRUMENTATION
AMIE+DIPLOMA	IST	INSTRUMENTATION TECHNOLOGY/ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	IST	INSTRUMENTATION TECHNOLOGY/ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	IST	INSTRUMENTATION TECHNOLOGY/ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	MCT	MECHATRONICS	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	MCT	MECHATRONICS	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	MCT	MECHATRONICS	NT	NANO TECHNOLOGY

AMIE+DIPLOMA	MCT	MECHATRONICS	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	MEC	MECHANICAL ENGINEERING	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	MEC	MECHANICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	MEC	MECHANICAL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	MEC	MECHANICAL ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	MET	METALLURGY	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	MET	METALLURGY	MT	METALLURGY
AMIE+DIPLOMA	MET	METALLURGY	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	MET	METALLURGY	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	MET	METALLURGY	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	MIN	MINING ENGINEERING	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	MIN	MINING ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	MIN	MINING ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	MIN	MINING ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	MME	MECHANICAL MARINE ENGINEERING	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	MME	MECHANICAL MARINE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	MME	MECHANICAL MARINE ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	MME	MECHANICAL MARINE ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	MMT	METALLURGY AND MATERIAL ENGG/TECH	MT	METALLURGY
AMIE+DIPLOMA	MMT	METALLURGY AND MATERIAL ENGG/TECH	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	MMT	METALLURGY AND MATERIAL ENGG/TECH	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	MMT	METALLURGY AND MATERIAL ENGG/TECH	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	MPE	MECHANICAL PRODUCTION ENGINEERING	ME	MECHANICAL ENGINEERING
AMIE+DIPLOMA	MPE	MECHANICAL PRODUCTION ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	MPE	MECHANICAL PRODUCTION ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	MPE	MECHANICAL PRODUCTION ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	NVA	NAVAL ARCHITECTURE	ME	MECHANICAL ENGINEERING

AMIE+DIPLOMA	NVA	NAVAL ARCHITECTURE	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	NVA	NAVAL ARCHITECTURE	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	NVA	NAVAL ARCHITECTURE	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	OTH	ANY OTHER ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	OTH	ANY OTHER ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	OTH	ANY OTHER ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIE+DIPLOMA	PCE	PETROCHEMICAL ENGINEERING	CH	CHEMICAL ENGINEERING
AMIE+DIPLOMA	PCE	PETROCHEMICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	PCE	PETROCHEMICAL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	PCE	PETROCHEMICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	PET	PETROLEUM ENGG/TECH	CH	CHEMICAL ENGINEERING
AMIE+DIPLOMA	PET	PETROLEUM ENGG/TECH	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	PET	PETROLEUM ENGG/TECH	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	PET	PETROLEUM ENGG/TECH	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	PHE	PHARMACEUTICAL ENGINEERING	BT	BIOTECHNOLOGY
AMIE+DIPLOMA	PHE	PHARMACEUTICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	PHE	PHARMACEUTICAL ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	PHE	PHARMACEUTICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	PHT	PHARMACEUTICAL TECHNOLOGY	BT	BIOTECHNOLOGY
AMIE+DIPLOMA	PHT	PHARMACEUTICAL TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	PHT	PHARMACEUTICAL TECHNOLOGY	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	PHT	PHARMACEUTICAL TECHNOLOGY	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIEME	MEC	MECHANICAL ENGINEERING	ME	MECHANICAL ENGINEERING
AMIEME	MEC	MECHANICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIEME	MEC	MECHANICAL ENGINEERING	NT	NANO TECHNOLOGY
AMIEME	MEC	MECHANICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS

AMIETE	TCE	TELECOMMUNICATIONS ENGINEERING	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
AMIETE	TCE	TELECOMMUNICATIONS ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIETE	TCE	TELECOMMUNICATIONS ENGINEERING	NT	NANO TECHNOLOGY
AMIETE	TCE	TELECOMMUNICATIONS ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
AMIIM	MET	METALLURGY	ME	MECHANICAL ENGINEERING
AMIIM	MET	METALLURGY	MT	METALLURGY
AMIIM	MET	METALLURGY	CS	COMPUTER SCIENCE ENGINEERING
AMIIM	MET	METALLURGY	NT	NANO TECHNOLOGY
AMIIM	MET	METALLURGY	GG	GEO-ENGINEERING & GEO INFORMATICS
B.ARCH.	ARC	ARCHITECTURAL ENGINEERING	NT	NANO TECHNOLOGY
B.ARCH.	ARC	ARCHITECTURAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	AGR	AGRICULTURAL ENGINEERING	BT	BIOTECHNOLOGY
B.E./B.TECH	AGR	AGRICULTURAL ENGINEERING	FT	FOOD TECHNOLOGY
B.E./B.TECH	AGR	AGRICULTURAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	AGR	AGRICULTURAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	AGR	AGRICULTURAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	ANE	AERONAUTICAL ENGINEERING	ME	MECHANICAL ENGINEERING
B.E./B.TECH	ANE	AERONAUTICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	ANE	AERONAUTICAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	ANE	AERONAUTICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	APE	APPLIED PETROLEUM ENGINEERING	CH	CHEMICAL ENGINEERING
B.E./B.TECH	APE	APPLIED PETROLEUM ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	APE	APPLIED PETROLEUM ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	APE	APPLIED PETROLEUM ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	ASE	AEROSPACE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	ASE	AEROSPACE ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	ASE	AEROSPACE ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	AUT	AUTOMOBILE ENGINEERING	ME	MECHANICAL ENGINEERING
B.E./B.TECH	AUT	AUTOMOBILE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	AUT	AUTOMOBILE ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	AUT	AUTOMOBILE ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	BT	BIOTECHNOLOGY

B.E./B.TECH	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	CH	CHEMICAL ENGINEERING
B.E./B.TECH	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	BCE	BIO CHEMICAL/CHEMICAL BIO ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	BIN	BIOINFORMATICS	BT	BIOTECHNOLOGY
B.E./B.TECH	BIN	BIOINFORMATICS	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	BIN	BIOINFORMATICS	NT	NANO TECHNOLOGY
B.E./B.TECH	BIN	BIOINFORMATICS	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	BIO	BIOTECHNOLOGY	BT	BIOTECHNOLOGY
B.E./B.TECH	BIO	BIOTECHNOLOGY	FT	FOOD TECHNOLOGY
B.E./B.TECH	BIO	BIOTECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	BIO	BIOTECHNOLOGY	NT	NANO TECHNOLOGY
B.E./B.TECH	BIO	BIOTECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	BME	BIOMEDICAL ENGINEERING	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
B.E./B.TECH	BME	BIOMEDICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	BME	BIOMEDICAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	BME	BIOMEDICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	CCT	CIVIL CONSTRUCTION TECHNOLOGY	CE	CIVIL ENGINEERING
B.E./B.TECH	CCT	CIVIL CONSTRUCTION TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	CCT	CIVIL CONSTRUCTION TECHNOLOGY	NT	NANO TECHNOLOGY
B.E./B.TECH	CCT	CIVIL CONSTRUCTION TECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	CEE	CIVIL ENVIRONMENTAL ENGINEERING	CE	CIVIL ENGINEERING
B.E./B.TECH	CEE	CIVIL ENVIRONMENTAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	CEE	CIVIL ENVIRONMENTAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	CEE	CIVIL ENVIRONMENTAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	CHE	CHEMICAL ENGINEERING	BT	BIOTECHNOLOGY
B.E./B.TECH	CHE	CHEMICAL ENGINEERING	CH	CHEMICAL ENGINEERING
B.E./B.TECH	CHE	CHEMICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	CHE	CHEMICAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	CHE	CHEMICAL ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	CIV	CIVIL ENGINEERING	CE	CIVIL ENGINEERING

B.E./B.TECH	CIV	CIVIL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	CIV	CIVIL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	CIV	CIVIL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	CSE	COMPUTER SCIENCE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	CSE	COMPUTER SCIENCE ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	CSE	COMPUTER SCIENCE ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	CSS	COMPUTER SCIENCE AND SYSTEMS ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	CSS	COMPUTER SCIENCE AND SYSTEMS ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	CSS	COMPUTER SCIENCE AND SYSTEMS ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	DRG	DAIRY TECHNOLOGY	FT	FOOD TECHNOLOGY
B.E./B.TECH	DRG	DAIRY TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	DRG	DAIRY TECHNOLOGY	NT	NANO TECHNOLOGY
B.E./B.TECH	DRG	DAIRY TECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
B.E./B.TECH	ECE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	EI	INSTRUMENTATION
B.E./B.TECH	ECM	ELECTRONICS AND COMPUTER ENGINEERING	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
B.E./B.TECH	ECM	ELECTRONICS AND COMPUTER ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	ECM	ELECTRONICS AND COMPUTER ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	ECM	ELECTRONICS AND COMPUTER ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	ECS	ELECTRONICS AND CONTROL SYSTEMS	EI	INSTRUMENTATION
B.E./B.TECH	ECS	ELECTRONICS AND CONTROL SYSTEMS	CS	COMPUTER SCIENCE ENGINEERING

B.E./B.TECH	ECS	ELECTRONICS AND CONTROL SYSTEMS	NT	NANO TECHNOLOGY
B.E./B.TECH	ECS	ELECTRONICS AND CONTROL SYSTEMS	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	EE	ELECTRICAL ENGINEERING	EE	ELECTRICAL ENGINEERING
B.E./B.TECH	EE	ELECTRICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	EE	ELECTRICAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	EE	ELECTRICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	EEE	ELECTRICAL AND ELECTRONICS ENGINEERING	EE	ELECTRICAL ENGINEERING
B.E./B.TECH	EEE	ELELCTRICAL AND ELECTRONICS ENGINEERING	EI	INSTRUMENTATION
B.E./B.TECH	EEE	ELECTRICAL AND ELECTRONICS ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	EEE	ELECTRICAL AND ELECTRONICS ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	EEE	ELECTRICAL AND ELECTRONICS ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
B.E./B.TECH	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	EI	INSTRUMENTATION
B.E./B.TECH	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	EIE	ELECTRONICS INSTRUMENTATION ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	ELE	ELECTRONICS	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
B.E./B.TECH	ELE	ELECTRONICS	EI	INSTRUMENTATION
B.E./B.TECH	ELE	ELECTRONICS	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	ELE	ELECTRONICS	NT	NANO TECHNOLOGY
B.E./B.TECH	ELE	ELECTRONICS	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	ETM	ELECTRONICS AND TELEMATICS	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
B.E./B.TECH	ETM	ELECTRONICS AND TELEMATICS	EI	INSTRUMENTATION
B.E./B.TECH	ETM	ELECTRONICS AND TELEMATICS	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	ETM	ELECTRONICS AND TELEMATICS	NT	NANO TECHNOLOGY

B.E./B.TECH	ETM	ELECTRONICS AND TELEMATICS	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	BT	BIOTECHNOLOGY
B.E./B.TECH	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	FT	FOOD TECHNOLOGY
B.E./B.TECH	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	NT	NANO TECHNOLOGY
B.E./B.TECH	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	GIN	GEO-INFORMATICS	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	GIN	GEO-INFORMATICS	NT	NANO TECHNOLOGY
B.E./B.TECH	GIN	GEO-INFORMATICS	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	GSE	GEOSCIENCE ENGINEERING	CH	CHEMICAL ENGINEERING
B.E./B.TECH	GSE	GEOSCIENCE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	GSE	GEOSCIENCE ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	GSE	GEOSCIENCE ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	IBT	INDUSTRIAL BIOTECHNOLOGY	BT	BIOTECHNOLOGY
B.E./B.TECH	IBT	INDUSTRIAL BIOTECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	IBT	INDUSTRIAL BIOTECHNOLOGY	NT	NANO TECHNOLOGY
B.E./B.TECH	IBT	INDUSTRIAL BIOTECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	ICE	INSTRUMENTATION CONTROL ENGINEERING	EI	INSTRUMENTATION
B.E./B.TECH	ICE	INSTRUMENTATION CONTROL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	ICE	INSTRUMENTATION CONTROL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	ICE	INSTRUMENTATION CONTROL ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	INE	INDUSTRIAL ENGINEERING	ME	MECHANICAL ENGINEERING
B.E./B.TECH	INE	INDUSTRIAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	INE	INDUSTRIAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	INE	INDUSTRIAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	INF	INFORMATION TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	INF	INFORMATION TECHNOLOGY	NT	NANO TECHNOLOGY
B.E./B.TECH	INF	INFORMATION TECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS

B.E./B.TECH	IPE	INDUSTRIAL PRODUCTION ENGINEERING	ME	MECHANICAL ENGINEERING
B.E./B.TECH	IPE	INDUSTRIAL PRODUCTION ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	IPE	INDUSTRIAL PRODUCTION ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	IPE	INDUSTRIAL PRODUCTION ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	IST	INSTRUMENTATION TECHNOLOGY/ENGINEERING	EI	INSTRUMENTATION
B.E./B.TECH	IST	INSTRUMENTATION TECHNOLOGY/ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	IST	INSTRUMENTATION TECHNOLOGY/ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	IST	INSTRUMENTATION TECHNOLOGY/ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	MCT	MECHATRONICS	ME	MECHANICAL ENGINEERING
B.E./B.TECH	MCT	MECHATRONICS	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	MCT	MECHATRONICS	NT	NANO TECHNOLOGY
B.E./B.TECH	MCT	MECHATRONICS	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	MEC	MECHANICAL ENGINEERING	ME	MECHANICAL ENGINEERING
B.E./B.TECH	MEC	MECHANICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	MEC	MECHANICAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	MEC	MECHANICAL ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	MET	METALLURGY	ME	MECHANICAL ENGINEERING
B.E./B.TECH	MET	METALLURGY	MT	METALLURGY
B.E./B.TECH	MET	METALLURGY	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	MET	METALLURGY	NT	NANO TECHNOLOGY
B.E./B.TECH	MET	METALLURGY	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	MIN	MINING ENGINEERING	ME	MECHANICAL ENGINEERING
B.E./B.TECH	MIN	MINING ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	MIN	MINING ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	MIN	MINING ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	MME	MECHANICAL MARINE ENGINEERING	ME	MECHANICAL ENGINEERING
B.E./B.TECH	MME	MECHANICAL MARINE ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	MME	MECHANICAL MARINE ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	MME	MECHANICAL MARINE ENGINEERING	GG	GEO-ENGINEERING & GEOINFORMATICS
B.E./B.TECH	MMT	METALLURGY AND MATERIAL ENGG/TECH	MT	METALLURGY
B.E./B.TECH	MMT	METALLURGY AND MATERIAL ENGG/TECH	CS	COMPUTER SCIENCE ENGINEERING

B.E./B.TECH	MMT	METALLURGY AND MATERIAL ENGG/TECH	NT	NANO TECHNOLOGY
B.E./B.TECH	MMT	METALLURGY AND MATERIAL ENGG/TECH	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	MPE	MECHANICAL PRODUCTION ENGINEERING	ME	MECHANICAL ENGINEERING
B.E./B.TECH	MPE	MECHANICAL PRODUCTION ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	MPE	MECHANICAL PRODUCTION ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	MPE	MECHANICAL PRODUCTION ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	NVA	NAVAL ARCHITECTURE	ME	MECHANICAL ENGINEERING
B.E./B.TECH	NVA	NAVAL ARCHITECTURE	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	NVA	NAVAL ARCHITECTURE	NT	NANO TECHNOLOGY
B.E./B.TECH	NVA	NAVAL ARCHITECTURE	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	OTH	ANY OTHER ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	OTH	ANY OTHER ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	OTH	ANY OTHER ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	PCE	PETROCHEMICAL ENGINEERING	CH	CHEMICAL ENGINEERING
B.E./B.TECH	PCE	PETROCHEMICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	PCE	PETROCHEMICAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	PCE	PETROCHEMICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	PET	PETROLEUM ENGG/TECH	CH	CHEMICAL ENGINEERING
B.E./B.TECH	PET	PETROLEUM ENGG/TECH	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	PET	PETROLEUM ENGG/TECH	NT	NANO TECHNOLOGY
B.E./B.TECH	PET	PETROLEUM ENGG/TECH	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	PHE	PHARMACEUTICAL ENGINEERING	BT	BIOTECHNOLOGY
B.E./B.TECH	PHE	PHARMACEUTICAL ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	PHE	PHARMACEUTICAL ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	PHE	PHARMACEUTICAL ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
B.E./B.TECH	PHT	PHARMACEUTICAL TECHNOLOGY	BT	BIOTECHNOLOGY
B.E./B.TECH	PHT	PHARMACEUTICAL TECHNOLOGY	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	PHT	PHARMACEUTICAL TECHNOLOGY	NT	NANO TECHNOLOGY
B.E./B.TECH	PHT	PHARMACEUTICAL TECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
B.PHARM	PHM	PHARMACY	BT	BIOTECHNOLOGY
B.PHARM	PHM	PHARMACY	PY	PHARMACY

B.V.SC.	VET	VETERINARY SCIENCE	BT	BIOTECHNOLOGY
B.V.SC.	VET	VETERINARY SCIENCE	NT	NANO TECHNOLOGY
BDS	BDS	DENTAL	BT	BIOTECHNOLOGY
BDS	BDS	DENTAL	NT	NANO TECHNOLOGY
M.SC.	ACH	APPLIED CHEMISTRY	BT	BIOTECHNOLOGY
M.SC.	ACH	APPLIED CHEMISTRY	NT	NANO TECHNOLOGY
M.SC.	AST	STATISTICS/APPLIED STATISTICS	CS	COMPUTER SCIENCE ENGINEERING
M.SC.	AST	STATISTICS/APPLIED STATISTICS	GG	GEO-ENGINEERING & GEO INFORMATICS
M.SC.	AST	STATISTICS/APPLIED STATISTICS	NT	NANO TECHNOLOGY
M.SC.	BCM	BIOCHEMISTRY	BT	BIOTECHNOLOGY
M.SC.	BCM	BIOCHEMISTRY	NT	NANO TECHNOLOGY
M.SC.	BIO	BIOTECHNOLOGY	BT	BIOTECHNOLOGY
M.SC.	BIO	BIOTECHNOLOGY	FT	FOOD TECHNOLOGY
M.SC.	BIO	BIOTECHNOLOGY	NT	NANO TECHNOLOGY
M.SC.	CAE	COMPUTER APPLICATIONS AND ELECTRONICS	CS	COMPUTER SCIENCE ENGINEERING
M.SC.	CAE	COMPUTER APPLICATIONS AND ELECTRONICS	NT	NANO TECHNOLOGY
M.SC.	CHY	CHEMISTRY	BT	BIOTECHNOLOGY
M.SC.	CHY	CHEMISTRY	FT	FOOD TECHNOLOGY
M.SC.	CHY	CHEMISTRY	NT	NANO TECHNOLOGY
M.SC.	CSS	COMPUTER SCIENCE AND SYSTEMS ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
M.SC.	CSS	COMPUTER SCIENCE AND SYSTEMS ENGINEERING	NT	NANO TECHNOLOGY
M.SC.	DRG	DAIRY TECHNOLOGY	FT	FOOD TECHNOLOGY
M.SC.	DRG	DAIRY TECHNOLOGY	NT	NANO TECHNOLOGY
M.SC.	ELE	ELECTRONICS	CS	COMPUTER SCIENCE ENGINEERING
M.SC.	ELE	ELECTRONICS	EC	ELECTRONICS AND COMMUNICATION ENGINEERING
M.SC.	ELE	ELECTRONICS	EI	INSTRUMENTATION
M.SC.	ELE	ELECTRONICS	GG	GEO-ENGINEERING & GEO INFORMATICS
M.SC.	ELE	ELECTRONICS	NT	NANO TECHNOLOGY
M.SC.	ENV	ENVIRONMENTAL SCIENCE AND TECHNOLOGY	BT	BIOTECHNOLOGY
M.SC.	ENV	ENVIRONMENTAL SCIENCE AND TECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
M.SC.	ENV	ENVIRONMENTAL SCIENCE AND TECHNOLOGY	NT	NANO TECHNOLOGY
M.SC.	ERS	EARTH SCIENCES	GG	GEO-ENGINEERING & GEOINFORMATICS
M.SC.	ERS	EARTH SCIENCES	NT	NANO TECHNOLOGY
M.SC.	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	BT	BIOTECHNOLOGY
M.SC.	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	FT	FOOD TECHNOLOGY

M.SC.	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	GG	GEO-ENGINEERING & GEOINFORMATICS
M.SC.	FST	FOOD SCIENCE/ENGINEERING/TECHNOLOGY	NT	NANO TECHNOLOGY
M.SC.	GEO	GEOLOGY/MARINE GEOLOGY	GG	GEO-ENGINEERING & GEOINFORMATICS
M.SC.	GEO	GEOLOGY/MARINE GEOLOGY	NT	NANO TECHNOLOGY
M.SC.	GPY	GEOPHYSICS	GG	GEO-ENGINEERING & GEO INFORMATICS
M.SC.	GPY	GEOPHYSICS	CS	COMPUTER SCIENCE ENGINEERING
M.SC.	GPY	GEOPHYSICS	NT	NANO TECHNOLOGY
M.SC.	ICH	INDUSTRIAL CHEMISTRY	BT	BIOTECHNOLOGY
M.SC.	ICH	INDUSTRIAL CHEMISTRY	GG	GEO-ENGINEERING & GEOINFORMATICS
M.SC.	ICH	INDUSTRIAL CHEMISTRY	NT	NANO TECHNOLOGY
M.SC.	INS	INFORMATION SYSTEMS	CS	COMPUTER SCIENCE ENGINEERING
M.SC.	INS	INFORMATION SYSTEMS	NT	NANO TECHNOLOGY
M.SC.	LFS	LIFE SCIENCES	BT	BIOTECHNOLOGY
M.SC.	LFS	LIFE SCIENCES	NT	NANO TECHNOLOGY
M.SC.	MAT	MATHEMATICS/APPLIED MATHS	CS	COMPUTER SCIENCE ENGINEERING
M.SC.	MAT	MATHEMATICS/APPLIED MATHS	GG	GEO-ENGINEERING & GEO INFORMATICS
M.SC.	MAT	MATHEMATICS/APPLIED MATHS	NT	NANO TECHNOLOGY
M.SC.	MBI	MICROBIOLOGY	BT	BIOTECHNOLOGY
M.SC.	MBI	MICROBIOLOGY	NT	NANO TECHNOLOGY
M.SC.	MOG	METEOROLOGY & OCEANOGRAPHY	GG	GEO-ENGINEERING & GEOINFORMATICS
M.SC.	MOG	METEOROLOGY & OCEANOGRAPHY	NT	NANO TECHNOLOGY
M.SC.	PHY	PHYSICS/APPLIED PHYSICS	CS	COMPUTER SCIENCE ENGINEERING
M.SC.	PHY	PHYSICS/APPLIED PHYSICS	GG	GEO-ENGINEERING & GEO INFORMATICS
M.SC.	PHY	PHYSICS/APPLIED PHYSICS	NT	NANO TECHNOLOGY
M.SC.	RDT	RESOURCE DEVELOPMENT TECHNOLOGY	GG	GEO-ENGINEERING & GEO INFORMATICS
M.SC.	RDT	RESOURCE DEVELOPMENT TECHNOLOGY	NT	NANO TECHNOLOGY
MBBS	MED	MEDICINE	BT	BIOTECHNOLOGY
MBBS	MED	MEDICINE	NT	NANO TECHNOLOGY
MCA	MCA	MASTER OF COMPUTER APPLICATIONS	CS	COMPUTER SCIENCE ENGINEERING
MCA	MCA	MASTER OF COMPUTER APPLICATIONS	NT	NANO TECHNOLOGY
B.E./B.TECH	PWR	POWER ENGINEERING	EE	ELECTRICAL ENGINEERING
B.E./B.TECH	PWR	POWER ENGINEERING	EI	INSTRUMENTATION

B.E./B.TECH	PWR	POWER ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
B.E./B.TECH	PWR	POWER ENGINEERING	NT	NANO TECHNOLOGY
B.E./B.TECH	PWR	POWER ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS
AMIE+DIPLOMA	PWR	POWER ENGINEERING	EE	ELECTRICAL ENGINEERING
AMIE+DIPLOMA	PWR	POWER ENGINEERING	EI	INSTRUMENTATION
AMIE+DIPLOMA	PWR	POWER ENGINEERING	CS	COMPUTER SCIENCE ENGINEERING
AMIE+DIPLOMA	PWR	POWER ENGINEERING	NT	NANO TECHNOLOGY
AMIE+DIPLOMA	PWR	POWER ENGINEERING	GG	GEO-ENGINEERING & GEO INFORMATICS

8.0. ELIGIBLE BRANCHES OF ADMISSION OF EACH OF THE UNIVERSITIES BASED ON APPGECET-2024 APPEARANCE HAVE DIFFERENCE COURSEWISE ELIGIBILITY CRITERIA FOR VARIOUS POST-GRADUATE PROGRAMMES. TO KNOW THE ELIGIBILITY TO EACH PROGRAM, CANDIDATES ARE ADVISED TO REFER ALL THE DOCUMENTS AVAILABLE IN THE APPGECET-2024 HOME PAGE.

9.0. ORDER OF PREFERENCE WHILE GIVING ADMISSIONS

While filling up the seats in colleges, first preference will be given to candidates qualified in GATE / GPAT in the relevant test paper based on their test scores and the remaining seats will be filled with the candidates qualified in APPGECET-2024 as per their merit ranks.

10.0. TEST CENTRES FOR APPGECET-2024

APPGECET 2023 will be conducted at the following Centers:

S.No	DISTRICT NAME	TEST CENTER LOCATION
1	ANANTAPUR	ANANTAPUR
2	CHITTOOR	CHITTOOR
3	TIRUPATI	TIRUPATI
4	TIRUPATI	GUDUR
5	EAST GODAVARI	RAJAHMUNDRY
6	KAKINADA	KAKINADA
7	GUNTUR	GUNTUR
8	PALNADU	NARSARAOPETA
9	NTR	VIJAYAWADA
10	KURNOOL	KURNOOL
11	SRI POTTI SRI RAMULU NELLORE	NELLORE
12	PRAKASAM	ONGOLE
13	SRIKAKULAM	SRIKAKULAM
14	VISAKAPATANAM	VISAKHAPATNAM
15	VIZIANAGARAM	VIZIANAGARAM
16	WEST GODAVARI	BHIMAVARAM
17	YSR KADAPA	KADAPA
18	HYDERABAD (TELANGANA)	HYDERABAD

11.0. GENERAL INSTRUCTIONS TO THE STUDENTS

a) **All the candidates shall take utmost care while submitting the online application with regard to the subject paper chosen for the test. Request for change of test paper will not be entertained.**

b) **The APPGECET-2024 will be conducted online only and the candidates willing to appear are requested to get acquainted with the online Examination Process through practicing mock tests.**

c) **All the photographs submitted with the application must be exactly identical. Otherwise, candidates will not be permitted into the examination hall.**

d) **Candidates are not permitted to enter or leave the examination hall in the scheduled time of the examination.**

e) **It is the responsibility of the candidates to ensure that they are answering the correct Question Paper of the branch for which they are eligible for admission.**

f) **Question paper will be in English only.**

g) **Any malpractice case will be handled by strictly following the CETs rules in force**.

h) **The Online Answer Script images of APPGECET-2024 will be preserved for six months from the date of publication of results after which time they shall be disposed.**

i) **In any litigation concerning to APPGECET-2024 admissions, the parties to be impleaded are Secretary, A.P. State Council of Higher Education, Tadepalli, Guntur and the Convener, APPGECET-2024**

j) **Any litigation concerning APPGECET -2024 shall be within the jurisdiction of the High Court of A.P., at Amaravathi, Guntur only.**

k) The Convener or the Common Entrance Test Committee reserve the right to reject the application of a candidate at any stage, if (i) the application is incomplete. (ii) the candidate fails to satisfy the prescribed eligibility conditions. (iii) false or incorrect information is furnished.

l) Any change whatsoever, including that of caste/community status or category, shall not be permitted to be made in the filled in application once it is submitted to the Convener. No correspondence will be entertained in this regard.

m) The Convener is not responsible for the non – submission of application by the notified date and time for any reason whatsoever.

n) The Candidate should preserve the hall ticket to produce it at the time of test and later at the time of entry into the course.

o) Applicants should download hall tickets from website **https://cets.apsche.ap.gov.in** only.

p) The appearance at APPGECET-2024 does not entitle any candidate to be considered for entry into the course automatically.

q) The rank obtained with the benefit of relaxation of minimum qualifying marks at the APPGECET-2024 by any candidate, claiming to belong to SC/ST category, will be cancelled in case the claim is found to be invalid later or at any point of time.

r) The selection of candidates and allotment to colleges will be on the basis of rank obtained at the Common Entrance Test and other conditions laid down.

s) Candidate will not be permitted into the exam hall after the scheduled time on the date of entrance test.

t) **Candidates are advised to practice the mock tests placed in the website and familiarize with the mode of attempting the online test.**