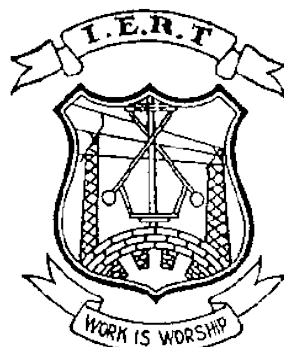


# **I.E.R.T. Entrance Examination – 2020**

## INFORMATION BROCHURE



**Institute of Engineering & Rural Technology, Prayagraj**

26, Chatham Lines, Prayagraj-211002, U.P. (India)

The opening date for online Application: **February 11, 2020 (Tuesday)**

The closing date for online Application: **April 30, 2020 (Thursday)**

Date of Entrance Examination for Three Years Engineering Diploma: **May 21, 2020 (Thursday)**

Date of Entrance Examination for Two Years Management Diploma and 1½ Years (3 Semester)

Post Diploma in Computer Application: **May 22, 2020 (Friday)**

## COURSE OFFERED & ELIGIBILITY DIPLOMA COURSES

Following courses are duly recognized by U.P. Government as well as approved by AICTE, New Delhi Government of India.

Sr.No.	Name of Courses	Eligibility	Mode of admission
1	<p><b>Three Year (6 Semester) Engineering/Technology Diploma</b>  <b>(A) Diploma in Plastic Technology.</b>  <b>(B) Diploma in Electrical Engineering</b>  <b>(C) Diploma in Electronics Engineering</b>  <b>(D) Diploma in Instrumentation &amp; Control Engineering.</b>  <b>(E) Diploma in Civil Engineering with Specialization in:</b>                      (1) Civil Engineering                      (2) Construction Technology                      (3) Public Health Engineering  <b>(F) Diploma in Mechanical Engineering with Specialization in:</b>                      (1) Power Plant Engineering                      (2) Production Engineering                      (3) Automobile Engineering                      (4) Tool Engineering                      (5) Refrigeration &amp; Air Conditioning Engineering                      (6) Tube-well Engineering</p>	<p>Candidate should have passed High School (10<sup>th</sup> class) examination with <b>Science &amp; Math</b> conducted by Madhyamik Shiksha Parishad U.P. or any other equivalent examination of Central Board (CBSE or ICSE) or any other State Board. Candidate appearing in the above Examination is also eligible, subject to the condition they will have to produce their pass Mark Sheet &amp; Certificate of High School at the time of counselling. There is no any upper age limit but candidate must be a minimum of 14 years old on 1<sup>st</sup> July 2020.</p> <p>There is no separate quota for candidates of other states. However, they will be given admission in case of non-availability of students from U.P. as per provision laid down by U.P. Govt.</p> <p>विज्ञान एवं गणित विषय के साथ हाई स्कूल माध्यमिक शिक्षा परिषद उ०प्र० अथवा समकक्ष परीक्षा (सी०बी०एस०ई०/आई०सी०एस०ई०) या अन्य राजकीय बोर्ड द्वारा उत्तीर्ण हो ऐसे अभ्यर्थी इस परीक्षा में बैठ सकते हैं। जिन अभ्यर्थियों ने इस वर्ष हाई स्कूल परीक्षा दी है वे छात्र भी परीक्षा में बैठ सकते हैं, इस शर्त के साथ कि काउन्सिलिंग के समय तक हाई स्कूल उत्तीर्ण का अंक पत्र एवं प्रमाण पत्र प्रस्तुत करना आवश्यक होगा। तीन वर्षीय 6 सेमेस्टर इंजीनियरिंग/टेकनोलॉजी डिप्लोमा के लिए अधिकतम आयु सीमा नहीं है परन्तु न्यूनतम आयु सीमा 1 जुलाई, 2019 को 14 वर्ष होनी चाहिए।</p> <p>अन्य राज्यों के अभ्यर्थियों के लिए कोई विशिष्ट आरक्षण कोटा नहीं है, तदपि उन्हें संस्थान में प्रवेश उ०प्र० सरकार द्वारा निर्धारित नियमों के अनुसार उस स्थिति में दिया जा सकेगा जब कि उ०प्र० के अभ्यर्थी प्रवेश हेतु उपलब्ध न हो।</p>	<p>Through Entrance Examination</p> <p>प्रवेश परीक्षा के माध्यम द्वारा</p>
2	<p><b>Two Year (4 Semester) Management Diploma</b>  <b>(A) Commercial Practice</b>  <b>(B) Materials Management</b>  <b>(C) Marketing Management</b></p>	<p>Intermediate (10+2) pass or equivalent <b>English and Hindi at High School or Intermediate level.</b> Candidates appearing in the above-mentioned examination are also eligible for the Entrance Examination, but they will have to produce pass mark sheet and certificate of above examination at the time of counselling.</p> <p>इण्टरमीडिएट (10+2) परीक्षा उत्तीर्ण या समकक्ष, परन्तु हाईस्कूल या इण्टरमीडिएट में हिन्दी और अंग्रेजी विषय आवश्यक है। जो अभ्यर्थी इस वर्ष उपरोक्त परीक्षा दे रहे हैं, वह भी परीक्षा में बैठ</p>	<p>Through Entrance Examination followed by Interview.</p>

		सकते हैं किन्तु काउन्सिलिंग के समय उपरोक्त परीक्षा के पास होने का अंक पत्र एवं प्रमाण पत्र होना आवश्यक है।	प्रवेश परीक्षा तदोपरान्त साक्षात्कार के माध्यम द्वारा
3	<b>One &amp; Half Year (3 Semester) Post Diploma in Computer Application</b>	Diploma in any branch of Engineering/ Technology or graduate in any discipline with Physics and Math Subjects at Intermediate (10+2) or its equivalent. The appearing candidates at above mentioned exam are also eligible for entrance examination but they will have to produce pass mark sheet and certificate of above exam at the time of counselling. अभियान्त्रिकी/टेक्नॉलाजी डिप्लोमा अथवा स्नातक योग्यता जिसमें इण्टरमीडिएट (10+2) अथवा समकक्ष स्तर पर भौतिक विज्ञान एवं गणित विषय हो इस कोर्स के लिए अर्हता पूरी करते हैं। जो अभ्यर्थी उपरोक्त परीक्षा के अन्तिम वर्ष में बैठ रहे हैं, वे भी परीक्षा दे सकते हैं किन्तु काउन्सिलिंग के समय उत्तीर्ण की अंकतालिका एवं प्रमाण पत्र होना आवश्यक है।	Through Entrance Examination followed by Interview. प्रवेश परीक्षा तदोपरान्त साक्षात्कार के माध्यम द्वारा

**NOTE: Latest G.O. regarding reservation, number of seats will be applicable at the time of Counselling/Admission**

## 1. GENERAL INSTRUCTIONS ( )

- (a) The opening date for online Application: **February 11, 2020 (Tuesday)**  
The closing date for online Application: **April 30, 2020 (Thursday)**  
Date of Entrance Examination for Three Years Engineering Diploma: **May 21, 2020 (Thursday)**  
Date of Entrance Examination for Two Years Management Diploma: **May 22, 2020 (Friday)**  
Date of Entrance Examination for 1½ Years (3 Semester) Post Diploma in Computer Application: **May 22, 2020 (Friday)**
- (b) (i) Candidates of IERT ENTRANCE EXAMINATION-2020 have to apply online only. There is no printed application form for IERT ENTRANCE EXAMINATION-2020.  
(ii) Please ensure that you are filling genuine application form available online at [www.iertonline.in](http://www.iertonline.in) website.  
(iii) Please ensure your eligibility as per the criteria laid down in the brochure for duly recognized by U.P. Govt. and approved by A.I.C.T.E. New Delhi. Diploma courses offered by the institute. The Information Brochure is available only on the web site [www.iertonline.in](http://www.iertonline.in) for reading as well as download. Also, to ensure that to read every instruction carefully before filling the online application. The candidates are, therefore, advised to ensure their eligibility, category and subcategory (if applying under reserved category/subcategory). The institute, in no way, will be responsible for any wrong/incorrect information furnished by the candidate(s) in their online application form.

- (iv) All the candidates who have submitted the online application and paid the application fee till last date will be allowed to appear in IERT ENTRANCE EXAMINATION-2020 and their admit cards will be uploaded on the website as per schedule given to the website [www.iertonline.in](http://www.iertonline.in)
- (v) The Application fee (in Indian Rupees) for IERT ENTRANCE EXAMINATION-2020 for all applicants **(General, EWS of General Category, OBC, SC, ST) is Rs 1350/- (Rs. One thousand three hundred fifty only)**. The application fee can be deposited **Online** (through Credit Card/Debit Card/Net Banking) or by depositing in cash in any branch of the Bank in India as prescribed in the challan. The service charges as per the guideline of the Reserve Bank of India against each such transaction will be paid by the candidate in addition to the application fee.
- (vi) Candidates are allowed to submit only one application form in each course for examination.
- (vii) The name of the candidate, his/her parent's name and Date of birth in the application form must exactly be the same as registered in Class 10th/ equivalent qualifying Examination. No prefix/title such as Mr./Shri/Er/Dr/Mrs./Smt/Col. etc. should be used.
- (viii) The application fee may be paid either by net banking/credit/debit card or through e-Challan generated during the online filling of the application form. In case of e-challan, the payment should be made in the any branch as prescribed in the challan in cash. Application fee once paid will not be refunded (full or partial) under any circumstances.
- (ix) No options can be changed at a later stage after submission of an application. However, a chance may be given to the candidates to correct/modify some of the particular(s) of the application form online only, after last date of submission of form. The candidates are advised to visit the website regularly to know the exact date when the correction(s)/modification(s) will be allowed online only.  
**No change will be accepted through offline i.e. through fax/application including e-mail etc.**
- (x) The IERT ENTRANCE EXAMINATION-2020 application has been made completely online i.e. the candidate has to fill the particulars online and also upload their photograph, signature and thumb impression. Due to above, the provision of sending hard copy of the application i.e. confirmation page to the Co-ordinator, IERT ENTRANCE EXAMINATION-2020 office has been done away with. Therefore, the **candidates are advised not to send hard copy of the application** i.e. confirmation page to Co-ordinator, IERT ENTRANCE EXAMINATION-2020. However, the candidates are advised to retain hard copy of the application i.e. confirmation page for future reference or correspondence, if any.
- (xi) Candidate(s) may check the status of their application on IERT ENTRANCE EXAMINATION-2020 website [www.iertonline.in](http://www.iertonline.in)
- (xii) The Hon'ble High Court of Allahabad alone will have the jurisdiction to settle and decide all matters and disputes related to IERT ENTRANCE EXAMINATION-2020 as the institute is located at Prayagraj is organizing the IERT ENTRANCE EXAMINATION-2020.

- (xiii) **The offer of admission shall be subject to verification of original certificates/ documents at the time of counselling/admission. If any candidate is found ineligible at a later date even after admission to an Institute, his/her admission will be cancelled.**
- (xiv) The candidates must have their own personal and valid email id. They are also advised to have their own mobile number. The candidates are advised to retain the same mobile number and email-id in use which they have furnished in the application form because the important information may be given to the candidates through SMS or e-mail.
- (xv) The decision of the Director/Chairman Examination Committee of IERT regarding the eligibility of any applicant shall be final.
- (xvi) All correspondence related to IERT ENTRANCE EXAMINATION-2020 should be addressed to:  
**Co-Ordinator, IERT ENTRANCE EXAMINATION-2020, Institute of Engineering & Rural Technology, 26 Chatham Line, Prayagraj-211002, U.P. (India).**
- (c) In Case of any difference at the time of counselling between signatures or thumb impression candidature/selection will be cancelled/rejected.
- (d) Candidature of the candidate will also be cancelled if the candidate does not fill up his/her Name, Father's Name and Date of Birth, exactly the same as given in the certificate of High School or equivalent.
- (e) During the verification/enquiry if any information given by the candidate is found wrong/misleading, candidature/selection of the candidate will be cancelled/rejected and candidate will not be able to appear in the entrance examination for the next three consecutive years.

## 2. RESERVATION OF THE SEATS

- (a) Reservation in admission to SC/ST/OBC/EWS of General Category, M.W (Military Ward, defense servicemen), F.F. (Freedom Fighter), P.H. (Physically Handicapped) and G.L. (Girls) will be given as per the existing rules and regulations of U.P.Govt. at the time of Counselling.

**Note:** "Vimukta jatiyan" is not allowed to take any benefit of reservation as Scheduled tribes (ST) in Admission  
आरक्षण उ०प्र० की अनुसूचित जाति (SC), अनुसूचित जनजाति (ST), अन्य पिछड़ा वर्ग (OBC), गरीब संवर्ण (EWS), सैनिक कर्मचारी के आश्रित (MW), स्वतन्त्रता सेनानी के आश्रित (FF), विकलांग (PH) एवं महिला (GL) को काउन्सिलिंग के समय उ०प्र० सरकार के नियमानुसार देय होगा।  
नोट— विमुक्त जातियों के अभ्यर्थियों का प्रवेश, अनुसूचित जनजाति कोटे के अन्तर्गत आरक्षण अनुमन्य नहीं होगा।



- (f) Physically Handicapped (Physically challenged) (PH) candidates are required to deposit certificates issued by CMO (Chief Medical Officer) showing more than 40% disability.  
विकलांग अभ्यर्थी को मुख्य चिकित्साधिकारी द्वारा निर्गत विकलांगता प्रमाण पत्र, जिसमें 40 प्रतिशत से अधिक विकलांगता का उल्लेख किये जाने पर ही आरक्षण अनुमन्य होगा।
- (g) Benefits of reservation can only be availed by candidates if it is properly mentioned/filled up in on-line application form and respective certificates as required is produced at the time of counselling. Otherwise the candidate will be treated as the candidate from the general category.  
प्रवेश हेतु ऑनलाइन आवेदन में भरी गयी श्रेणी के अनुसार ही आरक्षण का लाभ मिलेगा। उक्त आरक्षण का समुचित प्रमाण पत्र प्रवेश हेतु काउन्सिलिंग के समय प्रस्तुत करना अनिवार्य होगा अन्यथा अभ्यर्थी को सामान्य श्रेणी का माना जायेगा।
- (h) Name of the candidate, Father's name, Mother's name and Date of Birth mentioned in the certificates produced for the purpose of availing reservation such as category, caste, FF etc. should be same as printed in High School certificate. If there is any change in name or surname, the privilege of reservation will be denied and admission will be cancelled.  
जाति आरक्षण श्रेणी प्रमाण पत्र में अभ्यर्थी का नाम, पिता एवं माता का नाम, हाईस्कूल प्रमाण पत्र के अनुसार ही होना चाहिए। नाम या उपनाम (सरनेम) में बदलाव होने पर आरक्षण का लाभ नहीं मिलेगा और प्रवेश निरस्त कर दिया जायेगा।
- (i) Candidate should write his/her category in answer sheet of the Entrance Examination exactly the same which he/she has mentioned in on-line application.  
अभ्यर्थी ने प्रवेश हेतु आनलाइन आवेदन में जो श्रेणी लिखी है वही प्रवेश परीक्षा की उत्तर पुस्तिका (आन्सर शीट) पर निर्धारित स्थान पर लिखना होगा।
- (j) If candidate has not mentioned any category in on line application and answer sheet or in any of them, candidate will be treated as general category candidate.  
यदि अभ्यर्थी द्वारा आनलाइन आवेदन और उत्तरपुस्तिका या इनमें से किसी भी एक में कोई श्रेणी नहीं भरी गयी है तो ऐसी अवस्था में अभ्यर्थी सामान्य श्रेणी का माना जायेगा।

**Note: -It is mandatory to produce all the original certificates and three sets of their photo copies at the time of Counselling.**

प्रवेश हेतु काउन्सिलिंग के समय सभी प्रमाण पत्रों की मूल प्रतियाँ एवं उनकी तीन-तीन छाया प्रतियाँ अनिवार्य रूप से जमा करनी होगी।

### 3. BASIS/CRITERIA OF ADMISSION (प्रवेश परीक्षा का ढंग/तरीका)

- (a) Admission in three years (6-semester) Engineering/Technology Diploma will be strictly based on merit list of the marks obtained in the entrance examination.  
तीन वर्षीय (6-सेमेस्टर) इंजीनियरिंग/टेक्नोलॉजी डिप्लोमा का प्रवेश, प्रवेश परीक्षा के प्राप्तांक की मेरिट लिस्ट के आधार पर होगा।
- (b) Admission in two years (4-semester) Diploma in Commercial Practice, Materials Management, Marketing Management and 1½ year (3-semester) Post Diploma in Computer Application will be based on the merit of marks obtained in entrance examination & the interview.

दो वर्षीय (4-सेमेस्टर) कामर्शियल प्रैक्टिस, मेटिरियल मैनेजमेन्ट, मार्केटिंग मैनेजमेन्ट एवं डेढ़ वर्षीय (3-सेमेस्टर) पोस्ट डिप्लोमा इन कम्प्यूटर एप्लीकेशन का प्रवेश, प्रवेश परीक्षा एवं साक्षात्कार के प्राप्तांक के आधार पर बनी मेरिट लिस्ट के आधार पर होगा।

4.

#### ENTRANCE EXAMINATION-CENTER/LOCATION, DATE & TIME

प्रवेश परीक्षा-केन्द्र, तारीख तथा समय

- (a) Entrance Examination of three years (6-semester) Engineering/Technology Diploma will be organized at different centers in Prayagraj. The date and time of the Entrance Examination will be announced and made available on the website [www.iertonline.in](http://www.iertonline.in) whereas centers of the candidates will be mentioned in the admit card.

तीन वर्षीय (6-सेमेस्टर) इंजीनियरिंग/टेक्नोलॉजी डिप्लोमा की प्रवेश परीक्षा, प्रवेश परीक्षा हेतु निर्धारित वेबसाइट [www.iertonline.in](http://www.iertonline.in) पर दिये गये तिथि एवं समय के अनुसार प्रयागराज के विभिन्न केन्द्रों पर एक साथ सम्पन्न कराई जायेगी। परीक्षा केन्द्र की सूचना अभ्यर्थियों के प्रवेश पत्र में दी जायेगी।

- (b) Entrance Examination for two years (4-semester) Management Diploma and one and half year (3-semester) Post Diploma in Computer Application will be held at IERT (Institute of Engineering & Rural Technology, 26 Chatham lines) Prayagraj.

दो वर्षीय (4-सेमेस्टर) मैनेजमेन्ट डिप्लोमा एवं डेढ़ वर्षीय (3-सेमेस्टर) पोस्ट डिप्लोमा इन कम्प्यूटर एप्लीकेशन की प्रवेश परीक्षा प्रयागराज के आई0ई0आर0टी0, 26, चैथम लाइन, केन्द्र पर सम्पन्न होगी।

- (c) All the above examination will be held on the date & time as announced and made available on the website [www.iertonline.in](http://www.iertonline.in)

उपरोक्त सभी प्रवेश परीक्षाएँ प्रवेश परीक्षा हेतु निर्धारित वेबसाइट [www.iertonline.in](http://www.iertonline.in) पर दिये गये तारीख तथा समय के अनुसार सम्पन्न कराई जायेगी।

- (d) If date and time of the entrance examination is changed due to any unavoidable circumstances then it will be notified in newspaper as well as website [www.iertonline.in](http://www.iertonline.in)

यदि अपरिहार्य कारणोंवश परीक्षा की तारीख एवं समय में कोई परिवर्तन होता है तो इसकी सूचना समाचार पत्रों एवं निर्धारित वेबसाइट [www.iertonline.in](http://www.iertonline.in) के माध्यम से उपलब्ध करा दी जायेगी।

#### 5. ADMIT CARD प्रवेश पत्र

- (a) Admit card of the candidate will be uploaded on the website [www.iertonline.in](http://www.iertonline.in) and will be available for downloading before the examination. Candidates are requested to download their admit card from the website and should appear in the examination with a coloured printed copy of the admit card. The candidate will not be allowed to appear in the examination without admit card. In case the candidate does not retrieve his/her admit card, he/she may contact the examination department of IERT with his/her Registration number/Application ID generated during submission of the on line application form. Candidate may visit Examination Department of the institute, five days before the date of examination in between 11 A.M. to 4.00 P.M. to know his roll number and center.

प्रवेश पत्र वेबसाइट [www.iertonline.in](http://www.iertonline.in) पर उपलब्ध करा दिया जायेगा तथा परीक्षा तिथि से पूर्व अभ्यर्थियों को डाउनलोड हेतु उपलब्ध होगा।

अभ्यर्थियों को चाहिए कि वे अपने प्रवेश पत्र की छपी रंगीन प्रति लेकर प्रवेश परीक्षा में सम्मिलित होने के लिए आवें। बिना प्रवेश पत्र के किसी भी दशा में प्रवेश परीक्षा में बैठने की अनुमति नहीं होगी। किसी कारण से अभ्यर्थी को प्रवेश पत्र नहीं मिलता है तो परीक्षा तिथि के पाँच दिन पहले से आई0ई0आर0टी0 के परीक्षा विभाग में सुबह 11.00 बजे से सायं 4.00 बजे के बीच आकर अपना रजिस्ट्रेशन नम्बर/आवेदन पंजीयन बताकर अनुक्रमांक एवं केन्द्र पता कर सकते हैं।



- (b) Candidate can retrieve the admit card only from the website [www.iertonline.in](http://www.iertonline.in) There is no other provision/method for getting the admit card. Under any circumstances duplicate admit card shall not be issued at examination centers and the examination department of the institute.

अभ्यर्थियों को अपने प्रवेश पत्र सिर्फ/मात्र संस्थान की वेबसाइट [www.iertonline.in](http://www.iertonline.in) से ही डाउनलोड द्वारा प्राप्त होंगे। प्रवेश पत्र प्राप्त करने की कोई अन्य विधि की सुविधा उपलब्ध नहीं है। किसी भी परिस्थिति में डुप्लीकेट प्रवेश पत्र प्रदान करने की सुविधा परीक्षा केन्द्र या संस्थान के परीक्षा विभाग द्वारा प्रदत्त नहीं होगी।

## 6. RESULT OF ENTRANCE EXAMINATION प्रवेश परीक्षा परिणाम

- (a) Separate result will be declared for Engineering/Technology Diploma, Management Diploma and Post Diploma in Computer Application which will be strictly based on the merit as per the criteria given in point number 3(a) (b).  
प्रवेश परीक्षा परिणाम प्रवेश की मेरिट लिस्ट के आधार पर बिन्दु 3(a) (b) के अनुसार इंजीनियरिंग/टेक्नोलॉजी डिप्लोमा, मैनेजमेन्ट डिप्लोमा एवं पोस्ट डिप्लोमा इन कम्प्यूटर एप्लीकेशन का अलग अलग निकाला जायेगा।
- (b) The result of entrance examination shall be displayed on the notice board of I.E.R.T., 26, Chatham lines, Prayagraj. Result will also be available on the official website [www.iertonline.in](http://www.iertonline.in)  
प्रवेश परीक्षा परिणाम आई0ई0आर0टी0, प्रयागराज के नोटिस बोर्ड एवं संस्थान की वेबसाइट [www.iertonline.in](http://www.iertonline.in) पर उपलब्ध कराया जायेगा।
- (c) The result of examination does not give guarantee of admission to any candidate. Admission will be given strictly on the basis of merit, reservation and verification of legal validity of original certificates during the counselling.  
प्रवेश परीक्षा परिणाम इस प्रकार की कोई गारन्टी नहीं देता कि आपका प्रवेश होगा ही। प्रवेश, काउन्सिलिंग के समय निर्धारित सीट पर मेरिट, आरक्षण, मूल प्रमाण पत्रों की जाँच एवं वैधता के आधार पर दिया जायेगा।
- (d) No allowances will be paid to the candidates for appearing in counselling.  
काउन्सिलिंग में उपस्थित होने के लिए अभ्यर्थी को किसी प्रकार का कोई भत्ता देय नहीं होगा।

## 7. INTIMATION LETTER प्रवेश हेतु सूचना पत्र

- (a) The candidates are instructed to be vigilant and watchful for the result of the Entrance Examination and should regularly see/visit the website [www.iertonline.in](http://www.iertonline.in) Although, the copy of the result will be displayed on the notice board of the Institute and notification of declaration of result will be sent to all lead newspaper of Prayagraj. Letter of offer for attending counselling, for shortlisted candidates only, to take admission will be uploaded on the website [www.iertonline.in](http://www.iertonline.in) as soon as the result is declared. The date, time and place for counselling will be given in the letter of offer for attending the counselling. No postal letter will be sent to the individual candidate. If the shortlisted candidate(s) have not downloaded his/her letter of offer for counselling, from the website due to any reason, the institute will not be held responsible for the same. In any case, this letter of offer for counselling does not give any

guarantee/right of admission in the institute to the candidate, as the letter of offer, to attend the counselling, is being uploaded more than the number of seats available for admission.

प्रवेश परीक्षा के परिणाम के लिए अभ्यर्थियों को सतर्क एवं सजग रहते हुए लगातार संस्थान की वेबसाइट [www.iertonline.in](http://www.iertonline.in) को देखते हुए इस सम्बन्ध में जानकारी प्राप्त करनी होगी। यद्यपि, प्रवेश परीक्षा परिणाम घोषित किये जाने की सूचना प्रयागराज के प्रमुख समाचार पत्रों के माध्यम से भी विज्ञापित किया जायेगा तथा परीक्षा परिणाम संस्थान में सूचना पट्ट पर भी उपलब्ध होगा। प्रवेश हेतु काउन्सिलिंग आमन्त्रण पत्र, केवल इस हेतु सूचीबद्ध किये गये अभ्यर्थियों के लिए केवल वेबसाइट [www.iertonline.in](http://www.iertonline.in) पर ही उपलब्ध होगा जिसको परीक्षा परिणाम घोषित एवं वेबसाइट पर उपलब्ध किये जाने के तुरन्त बाद प्रत्येक सफल अभ्यर्थियों को डाउनलोड करना होगा। काउन्सिलिंग की तिथि, समय एवं स्थान सम्बन्धित सूचना अभ्यर्थी के द्वारा इस हेतु डाउनलोड किये गये आमन्त्रण पत्र पर ही लिखा रहेगा। ध्यान दें कि काउन्सिलिंग हेतु डाक के द्वारा सूचना/जानकारी किसी भी अभ्यर्थी को नहीं दी जायेगी। अतः प्रवेश हेतु काउन्सिलिंग की सूचना वेबसाइट से डाउनलोड करके ही प्राप्त करना होगा जिसकी पूरी जिम्मेदारी अभ्यर्थी की ही होगी। किन्हीं कारणों से अभ्यर्थी ऐसा नहीं कर पाता है तो इसके लिए संस्थान जिम्मेदार नहीं होगा। काउन्सिलिंग हेतु आमन्त्रण पत्र, संस्थान में किसी भी प्रकार से प्रवेश की गारन्टी/अधिकार नहीं देता है, क्योंकि काउन्सिलिंग हेतु आमन्त्रित किये जाने वाले अभ्यर्थियों की संख्या प्रवेश हेतु निर्धारित छात्र संख्या से हमेशा अधिक रहती है।

- (b) Candidates are instructed to be watchful and vigilant for the result and should regularly see the notice board of the institute and website [www.iertonline.in](http://www.iertonline.in)

अभ्यर्थियों को सचेत किया जाता है कि परिणाम की जानकारी हेतु संस्थान का नोटिस बोर्ड एवं वेबसाइट [www.iertonline.in](http://www.iertonline.in) देखें।

## 8. STRUCTURE OF ENTRANCE EXAMINATION प्रवेश परीक्षा का ढाँचा

- (a) Question paper will be of three hours, which will contain multiple choice type objective questions of maximum 300 (Three hundred) marks. There will be an interview of hundred marks of those courses in which interview are part of admission process.  
प्रवेश परीक्षा में वस्तुनिष्ठ प्रकार का तीन घंटे का एक प्रश्नपत्र होता है जिसके अधिकतम अंक 300 होते हैं जिस कोर्स में साक्षात्कार होता है उसमें साक्षात्कार के लिए 100 अंक अलग होते हैं
- (b) Every question booklet will have 75 multiple choice type objective questions with four options of answer for every question.  
प्रत्येक प्रश्नपुस्तिका में 75 वस्तुनिष्ठ (ओब्जेक्टिव) प्रकार के प्रश्न होते हैं जिसमें प्रत्येक प्रश्न के चार उत्तर विकल्प के रूप में होते हैं।
- (c) Candidate has to attempt all the questions. For each correct answer four marks will be awarded whereas one mark will be deducted for each wrong answer.  
प्रत्येक सही उत्तर के लिए चार अंक दिये जाते हैं तथा प्रत्येक गलत उत्तर के लिए एक अंक काट लिया जाता है। सभी प्रश्न करना अनिवार्य है।
- (d) Admission process is completed strictly according to the merit in the auditorium of the institute at the time of counselling on the scheduled time and date. If a candidate does not report on time at the call of counselor on the date of counselling, he/she will be considered absent/not interested and his/her seat of admission will be given to the candidate who stands next to him/her in merit.  
प्रवेश मेरिट लिस्ट के अनुसार संस्था के सभागार में काउन्सिलिंग के लिए निर्धारित दिनांक एवं समय पर मेरिट से किया जाता है। यदि बुलाने के समय पर अभ्यर्थी उपस्थित नहीं है तब मेरिट के अगले अभ्यर्थी को बुलाकर प्रवेश प्रक्रिया पूरी करा ली जाती है।
- (e) In any particular day pre decided fixed number of required admissions is taken and then counselling is closed.

जिस दिन जितने प्रवेश की आवश्यकता होती है, उतने प्रवेश पूरा होने पर उस दिन की काउन्सिलिंग वहीं पर बन्द कर दी जाती है।

- (f) **It is must for the candidate to be present at the place in time as mentioned in his/her offer letter for counselling obtained along with their entire original certificates, three photocopies of them, Bank Draft of the fees, twelve copies/ number of the same photographs as affixed in the application form.**

अभ्यर्थी को सचेत किया जाता है कि काउन्सिलिंग हेतु उनके द्वारा प्राप्त किये गये बुलावा पत्र में निर्धारित स्थान एवं समय पर स्वयं अपने सभी मूल प्रमाण पत्र (तीन प्रति प्रत्येक की छायाप्रति सहित), फीस का ड्राफ्ट, 12 अदद स्वयं के फोटोग्राफ जैसा कि आवेदन पत्र पर लगाया गया था, उपस्थित हों।

## 9. ALLOTMENT OF BRANCH ब्रान्च का आवंटन

- (a) Branch of Engineering/Technology course is allotted carefully as per merit availability and option given by the candidate, ब्रान्च का आवंटन बहुत ही सावधानी से प्रवेश परीक्षा परिणाम की मेरिट लिस्ट के आधार पर छात्रों की इच्छा और उपलब्धता पर किया जाता है।
- (b) If a candidate does not turn up/report at the time of counselling he/she immediately loses his/her merit and the candidate next to him in the merit is given his/her chance.  
किसी कारण से अभ्यर्थी अपनी मेरिट पर प्रवेश के लिए नहीं पहुँच पाता है तो उसी समय वह छात्र अपनी मेरिट खो देता है। इससे इसके नीचे वाले अभ्यर्थी को मौका मिल जाता है।
- (c) Merit list of entrance examination result does not give any guarantee of the allotment of the desired branch to the candidate.  
प्रवेश परीक्षा परिणाम की मेरिट लिस्ट इस प्रकार की कोई गारन्टी नहीं देता कि आपको इच्छानुसार ब्रान्च मिल जायेगी।
- (d) Branch once allotted at the time of counselling will not be changed in any condition.  
प्रवेश के बाद अभ्यर्थी द्वारा ग्राह्य की गई पाठ्यक्रम की विधा (ब्रान्च) बदली नहीं जा सकती है।

## 10. Fees फीस

- (a) Counselling fee and the course fee prescribed by the U.P. Govt. and the institute is to be deposited at the time of counselling through separate bank draft after the verification of the certificate.  
प्रवेश हेतु काउन्सिलिंग शुल्क एवं उ0प्र0 शासन तथा संस्था द्वारा निर्धारित फीस का अलग-अलग ड्राफ्ट अपने सभी प्रमाण पत्र जाँच कराने के बाद काउन्सिलिंग के दिन वहीं पर जमा करना होगा।
- (b) Admission will be cancelled if for any reason fee is not deposited on the day of admission/counselling.  
प्रवेश के दिन शुल्क जमा न कर पाने पर आपका प्रवेश निरस्त कर दिया जायेगा।
- (c) There is no provision to deposit fee in parts. The total fee is to be deposited at once.  
फीस भागों में नहीं जमा की जाती है। पूरी शुल्क का ड्राफ्ट प्रवेश के दिन ही जमा करना होगा।
- (d) Candidate will have to deposit the hostel fee also on the day of admission/counselling.  
छात्रावास की फीस भी काउन्सिलिंग के समय ही जमा होगी।
- (e) Separate Bank Draft of counselling fee and course fee in favor of Director, IERT payable at Prayagraj.

काउन्सिलिंग फीस एवं कोर्स फीस का अलग-अलग बैंक ड्राफ्ट निदेशक, आई0ई0आर0टी0 के पक्ष में जो प्रयागराज में देय हो जमा करना होगा।

## 11. LIST OF CERTIFICATES/DOCUMENTS REQUIRED AT THE TIME OF COUNSELLING

काउन्सिलिंग के समय अभ्यर्थियों द्वारा प्रस्तुत किये जाने वाले आवश्यक मूल प्रमाण पत्रों की सूची

- Admit Card of Entrance Examination. प्रवेश परीक्षा का एडमिट कार्ड (प्रवेश पत्र)
- Original certificate and mark sheet of High School along with three set of of photocopies.  
हाईस्कूल अंकतालिका एवं प्रमाण पत्र तीन सेट फोटोस्टेट कापी के साथ।
- Original mark sheet & certificate of any other educational qualification with three set of photocopies.  
अन्य शैक्षिक योग्यता के मूल अंकपत्र एवं प्रमाण पत्र तीन सेट फोटोस्टेट कापी के साथ।
- Original character certificate issued by the Principal/Head of the institution last attended (not older than 6 months).  
चरित्र प्रमाण पत्र उस संस्था के प्रधानाचार्य से हस्ताक्षरित जमा पर अंतिम शिक्षा ग्रहण की हो। (छ: माह के अन्दर का)।
- All those original certificate and mark sheets which are required for the eligibility of the course.  
कोर्स की योग्यता के लिए आवश्यक सभी अंकपत्र एवं प्रमाण पत्र
- Original certificate of category OBC/SC/ST/FF/MW/PH/EWS of General category issued by the competent authority.  
OBC/SC/ST/FF/MW/PH/EWS of General category प्रमाण पत्र सक्षम अधिकारी द्वारा निर्गत।
- Pension certificate of defense personnel for Military Ward (MW) dependent.  
सेवानिवृत्त सैनिक का पेंशन पेपर ( MW) के लिए।
- (h) 12 copies of same photograph which is pasted in application form.  
12 फोटोग्राफ जैसा प्रवेश फार्म में लगाया है।
- (i) Income certificate after 31 March, issued by competent authority for those who wish to avail fee waiver or scholarship.  
31-03-2020 के बाद का सक्षम अधिकारी द्वारा निर्गत आय प्रमाण पत्र किसी भी प्रकार की छूट एवं छात्रवृत्ति लेने वाले अभ्यर्थी हेतु।
- Medical certificate along with blood group report from CMO (Chief Medical Officer) or from Medical Officer of any Govt. Hospital.  
मेडिकल एवं ब्लड ग्रुप रिपोर्ट मुख्य चिकित्साधिकारी या किसी सरकारी अस्पताल के चिकित्सा अधिकारी द्वारा जारी।
- Domicile certificate of U.P. of Father/Mother for those who have passed the High School or equivalent examination from outside Uttar Pradesh.  
जिस अभ्यर्थी ने हाईस्कूल या समकक्ष परीक्षा उत्तर प्रदेश से बाहर रह कर पास की है ऐसे छात्र अपने उत्तर प्रदेश के मूल निवासी होने का प्रमाण पत्र।
- Original Transfer Certificate (TC) first copy from the institute last attended, which should be countersigned by D.I.O.S. (District Inspector of School). The board/institute where the provision for countersign of D.I.O.S. on transfer certificate is applicable, the candidate must give a copy of the order for this purpose issued by the competent authority otherwise his/her admission shall be cancelled.  
स्थानान्तरण प्रमाण पत्र (TC) की मूल प्रथम प्रति जमा से अन्तिम शिक्षा ग्रहण की है। जो जिला विद्यालय निरीक्षक द्वारा प्रतिहस्ताक्षरित होना चाहिए। यदि किसी भी परीक्षा बोर्ड में जिला विद्यालय निरीक्षक के प्रति हस्ताक्षरित किये जाने की व्यवस्था लागू नहीं है उस स्थिति में अभ्यर्थी को इस आशय का सक्षम अधिकारी स्तर से निर्गत आदेश

- की प्रति उपलब्ध किया जाना अनिवार्य होगा अन्यथा इसके अभाव में प्रवेश निरस्त किया जा सकता है।
- (m) If a candidate has any gap in his education he should submit the affidavit for the same.  
किन्ही कारणों से बीच में शिक्षा छोड़ी हो तो उसका व्यवधान सम्बन्धी शपथ पत्र।
- (n) Separate Bank Draft of counselling fee and course fee in favor of Director, IERT payable at Prayagraj.  
काउन्सिलिंग फीस एवं कोर्स फीस का अलग-अलग बैंक ड्राफ्ट निदेशक, आईई0आर0टी0 के पक्ष में जो प्रयागराज में देय हो।

**Communication to all the candidates regarding their admit card, candidate result, counselling letter or any other will be done through website of the institute - [www.iertonline.in](http://www.iertonline.in)**

प्रवेश परीक्षा सम्बन्धी सभी समस्त जानकारियों/सूचनाओं (जैसे कि प्रवेश पत्र, परीक्षा परिणाम, काउन्सिलिंग लेटर) आदि के आदान-प्रदान प्रवेश परीक्षा सम्बन्धित संस्थान की वेबसाइट [www.iertonline.in](http://www.iertonline.in) के माध्यम से ही किया जायेगा अभ्यर्थियों से अपेक्षा की जाती है कि वे परीक्षा सम्बन्धी किसी भी जानकारी को प्राप्त करने के लिए उपरोक्त वेबसाइट में उपलब्ध ई-मेल सुविधा का उपयोग करें।

### IMPORTANT NOTICE

- All legal matters or litigation, if any, shall be settled in the court of Allahabad only.
- All the matters Entrance examination not covered in the prospectus shall be at the discretion of admission committee of IERT, Prayagraj and that shall be final.
- Consult immediately the coordinator Entrance Examination personally before the scheduled date of examination. For ignorance of any point or rule, or for any confusion, institute will hold no responsibility but it will be the responsibility of the candidate only.
- Calculators, log tables, slide rules pager or any other gadgets using which violates the sanctity of the examination and mobile phones are not allowed in the entrance examination.
- Scrutiny or revaluation of answer sheet is not permitted under any circumstances.
- The eligibility of admission also includes medical fitness. The candidate selected for admission from the merit list should be free from any infections, contagious, colour blindness, mental & psychiatric diseases for which they will have to submit medical certificate from a government medical practitioner.
- Any attempt on the part of a candidate to influence the authorities, directly or indirectly will be treated as disqualification.

- Candidates will have to bring all original Degree, Diploma, Certificates, Mark Sheets and Category certificate etc. and three attested copies of each at the time of counselling.
- Any false declaration given by the candidate when detected at any stage will lead to the cancellation of admission and fee deposited will be forfeited for which the responsibility shall be of the candidate only even if the candidate is of final semester.
- Structure & procedure of the entrance examination shall be as per the rules and regulations as framed by the IERT administration/U.P. Government/Autonomy Committee from time to time. Any modification to these rules shall be a binding to all candidates.
- The intake in the various courses or branches will be communicated at the time of admission as per decision of appropriate authority.
- There is no provision of declaring marks or issuing marksheet of Entrance Examination. No correspondence or enquiry shall be entertained in this regard.
- If two or more candidates obtain the same marks in the entrance examination, then their merit shall be decided in accordance with their date of birth i.e. the elder shall be given preference.
- No candidate will be admitted without fulfilling the minimum academic qualification at the time of admission. Candidates will have to provide pass mark sheets of minimum academic qualification for the course at the time of admission in original.
- Candidature of the candidate will be cancelled if he/she fails to attend interview where the mode of admission is entrance examination followed by an interview.
- Admission of the candidate is subject to the medical fitness.

# SYLLABUS FOR IERT ENTRANCE EXAMINATION-2020

## SYLLABUS FOR THREE YEAR (6 SEMSTER) ENGINEERING DIPLOMA ENTRANCE EXAMINATION-2020

### MATHEMATICS

#### **A. ARITHMETIC:**

1. Simple & Compound interest.
2. Work-time and speed-time.
3. Bank deposits and payments in installments, Taxation.
4. Percentage, Profit, Loss & Discount.
5. Ratio, Proportion & Mixture.

#### **B. STATISTICS:**

1. Importance of statistics and its usefulness.
2. Classification of data frequency distribution, cumulative frequency. Graphical representation of statistical data, bar chart, histogram, frequency polygon, frequency curves, cumulative frequency curve and graphical representation, Pie diagram.
3. Measures of Central Tendency- Mean, Median & Mode.
4. Measures of Dispersion – Range, Mean Deviation, Standard Deviation & Variance.

#### **C. ALGEBRA:**

1. Number System-Natural Numbers, Whole Numbers, Integers, Even Numbers, Odd Numbers, Rational Numbers, Irrational Numbers, Real Numbers, Prime Numbers, Twin Prime Numbers, Composite Numbers and their characteristics.
2. Laws of Indices, Surds & Simplification.
3. Square Roots & Cube Roots.
4. Logarithms-definition, laws and their application, to find the characteristics & mantissa.
5. Factors-expressions in the form of difference of two squares, trinomial expression, factorization by completing the square, expressions in the form of sum and difference of two cubes, remainder theorem and expression of the type  $a^3+b^3+c^3-3abc$ .
6. L.C.M. & H.C.M by factorization.
7. Linear & Quadratic Equations.
8. Solution of simultaneous equations (linear equations with three variables) and problems based on them.
9. Set Theory – Sets, Representation of Sets, Types of Sets, Subsets, Universal set, Complement of Set, Union of Sets, Interaction of Sets, Disjoint Set, Difference of Sets, Laws of Algebra of Sets & Simple Problems with the help of Venn diagram.
10. Mappings - Into Mapping, Onto Mapping, One-One Mapping and Many-One Mapping.

#### D. TRIGONOMETRY:

1. Circular measures (relation between radian & degree), definition of trigonometric ratios and their relations.
2. Trigonometrical ratios of angles of  $0^\circ$ ,  $30^\circ$ ,  $40^\circ$ ,  $60^\circ$ ,  $90^\circ$  and  $180^\circ$
3. Trigonometrical ratios of angles of  $90^\circ \pm \theta$ ,  $180^\circ \pm \theta$ ,  $270^\circ \pm \theta$ ,  $360^\circ \pm \theta$ , where  $\theta$  is any angle.
4. Trigonometrical ratios (sine, cosine, tangent and cotangent) for the sum & difference of two angles.
5. Expressing products of sines and cosines into sum and difference form.
6. Trigonometrical ratios of multiple & sub multiple angles.
7. Angle of elevation and depression. Simple problems on height & distance.

#### E. GEOMETRY:

1. Pythagoras Theorem and its extension: Problems based on-
  - a. The square on one side of a triangle is greater, equal or smaller than the sum of the squares on two sides of it, according as the angle between these two sides is an obtuse angle, a right angle or an acute angle. In case of an un-equality the difference is twice the rectangle contained by one of these sides and projection of the other on this side. Knowledge of the Pythagoras number (3, 4, 5), (5, 12, 13) etc.
  - b. Apollonius Theorem- The sum of the squares contained on the two sides of a triangle equals twice the sum of the squares contained on half of the third side and the median bisecting this side.
2. Circles: Problems based on-
  - a. The line joining the center a circle to the midpoint of a chord is at right angles to it.
  - b. The converse of the above theorem.
  - c. One and only one circle can pass through three points not on the same straight line.
  - d. Segments subtending equal angles at the centers of equal circles are also equal.
  - e. The converse of the above theorem.
  - f. Equal chords of equal circles are contained on equal area.
  - g. The converse of the above theorem.
  - h. In a circle equal chords are equidistant from the center.
  - i. The converse of the above theorem.
  - j. The angle subtended at the center of a circle by an area is as twice the angle subtended by it at the remaining circumference.
  - k. Angles on the same segment of a circle are equal.
  - l. If the angles subtended by a straight line formed by joining two points at two other points (in the same side) are equal, the four points are noncyclic.
  - m. Angle on the semicircle is a right angle, that on the major segment is acute and the one on the minor segment is obtuse.
3. Area and Perimeter of Plane Figures.



**F. MENSURATION (Solid Geometry):**

Surfaces & Volumes of Cube, Cuboids, Rectangular Parallelepiped, Right Prism, Right Pyramid, Right Circular Cylinder, Right Circular Cone and Sphere (application of the formulae without proof).

**G. COORDINATES GEOMETRY:**

Distance Between Two Points, Section Formulae, Coordinates of Centroid, Circumcenter, Incentre & Orthocenter of a Triangle, Area of a Triangle & Quadrilateral, Collinear Points, Equations of Straight Lines in Different Forms, Length of a Perpendicular, Distance Between Two Parallel Lines, Equations of Parallel & Perpendicular Lines, Coordinates of the Foot of Perpendicular, Angles Between Two Lines, Co-ordinates of a Point of Intersection, Equations of the Bisectors of the Angles Between Two Given Lines, Concurrent Lines.

**PHYSICS****A. MEASUREMENTS**

1. Fundamental units: Fundamental quantities, S.I. system of fundamental units, standard meter, standard kilograms, standard second, micron, Angstrom & light years, derived units.
2. Measurements of small length: Principal of vernier calipers & screw gauge and its applications, limit of accuracy of measurement, significant figures.

**B. KINEMATICS:**

1. Elementary Knowledge of Vectors:  
Distance & displacement, speed & velocity, representation of vector, addition of vectors (triangle & polygon method-only force diagram).
2. Acceleration  
Equation of motion under gravity (straight line).

**C. MECHANICS:**

1. Laws of Motion – Newton's law of motion, first law, second law of motion (force mass acceleration), unit of force (Newton & Kilogram weight), law of conservation of momentum, third law of motion.
2. Moment of Force – Moment of force and its unit, principal of moments, equilibrium of a body under the system of parallel forces, center of gravity, condition of stable, unstable and neutral equilibrium.

**D. WORK, POWER & ENERGY:**

Work, Power, Energy and its units (Joule, Watt), definition of energy, kinetic energy, potential energy (examples of elastic, gravitational and electrical energy), Transformation of energy and its relation with work, conservation of mechanical energy, different forms of energy (including mass and energy relation).

**E. HYDRO-STATICS:**

Pressure in liquids & its dependence on density & depth, unit of pressure, laws of liquid pressure and deduction of Archimedes's principal from it, Floatation up thrust of gases, principal of simple barometer, calculation of atmospheric pressure from the height of mercury column, practical application.

## **F. VIBRATION:**

1. Periodic motion, time period, frequency, amplitude, characteristics of simple harmonic motion (No mathematical derivation).
2. Wave Motion & Sound- **Formation** of wave and its mechanism of propagation, Transverse and Longitudinal waves, wave length, speed of wave, relation between frequency of infrasonic & ultrasonic, general idea about electro-magnetic waves (gamma rays, X-rays, ultrasonic rays, visible light, infrared radiation, sources of radio waves and it's simple example of application).

## **G. HEAT KINETIC THEORY OF MATTER:**

1. Kinetic model of gases (no mathematical derivation). Explanation of the pressure of gases on the basis of kinetic theory, concept of temperature, relation between the pressure, volume and temperature of gases, ideal gas equation.
2. Thermal Expansion - Coefficient of thermal expansion of solid, liquid and gases, practical application of thermal expansion, liquid thermometer. Temperature scales (Celsius, Fahrenheit, & Kelvin).
3. Thermal Energy – Concept of internal energy, units of thermal energy (joule calorie). Thermal capacity and specific heat capacity. Latent heat, calorimeter (Principle of mixture, related problems).
4. Thermal Radiation - Dependence of rate of radiation on area, temperature & nature of surface, cooling curve, emissivity and its need.

## **H. LIGHT:**

1. Some facts about light - Mutual independence of light rays, deviation from rectilinear propagation of light, scattering of light, diffused reflection.
2. Reflection of light – Laws of reflection, ray diagram showing the formation of images from spherical mirrors (convex & concave), its size and nature, derivation of mirror formula and its use in numerical problems, linear magnification.
3. Refraction of light on plane surface – Refraction & speed of light, Snell's law, refractive index, refraction on two parallel plane surfaces refraction, deviation, dispersion of light and total reflection in prisms.
4. Refraction through thin lenses – Converging & diverging nature of lenses; first & second principal focus. Ray diagrams showing the formation of images from lenses use of  $1/v - 1/u = 1/f$  and its use in numerical problems (No derivation), linear magnification power of lenses and its unit (Diopter).
5. Optical Instruments – Formation of image in human eye power of accommodation, least distance of distinct vision, introduction of lenses as remedy of myopia (Short sightedness); hyper myopia (long sightedness), Photographic camera, slide projector, simple microscope and its magnifying power and arrangement of lenses in compound microscope and astronomical telescope.

## **I. ELECTROSTATICS:**

Atomic model of electrical phenomenon, negative, positive charge and their electron model, difference in conductor and nonconductor (free electron model), electrostatic induction and explanation of conduction in metal on the basis of free electron model.

## **J. ELECTRICITY:**

Simple Circuits – concept of electric current and potential difference, ampere and volt, electric cell, electromotive force, Leclanche cell, Daniell cell and drycell (with chemical reactions), polarization lead accumulator (chemical reaction not required) measurement of current and potential difference, Ohm's law, resistance & dependence of resistance on length of conductor, cross sectional area and nature of conductor specific resistance, combination of resistance in series and parallel, application of equivalent resistance in numerical problems internal resistance in numerical problems related with it. Series and parallel combination of cells.

## CHEMISTRY

### A. GENERAL & PHYSICAL CHEMISTRY

1. Science & scientific method, definition of chemistry, branches of chemistry and importance of chemistry in the modern age.
2. Matter and its three physical states & deviation based on molecular kinetic theory.
3. Atom, molecule and laws of chemical combination (Statement and examples).
4. Atomic structure, nuclear proton, neutron, atomic mass unit, electrons and their orbits (Atomic no. & isotopes) Introduction of radio activity and nuclear energy.
5. Valency- electrovalency and co-valency.
6. Symbol, formula, chemical equation, and balancing of simple chemical equations.
7. Gas laws – Boyle's laws, Charles's law, and gas equation; Gay-Lussac's law of gaseous volumes, Dalton's law of partial pressure and Graham's law of diffusion.
8. Avogadro's Hypothesis and its importance.
9. Atomic weight, molecular weight & equivalent weight. Examples and methods of their determinations (for molecular weight only Victor Meyer's and Hoffman's method).
10. Faraday's law of electrolysis, explanation of acid, base & salt, elementary concept of ionization. Principles of simple voltaic cell.
11. Different chemical reactions-addition, substitution, dissociation, hydrolysis, double decomposition, oxidation reduction and catalytic.
12. Explanation of solution- solution, solute, solvent saturated solution, unsaturated solution, and super saturated solution, normal solution-molal solution, molar solution, solubility, viz; reaction of solution, some important solvents water, benzene, ether, acetone, carbon tetrachloride and Alcohol.

### B. INORGANIC CHEMISTRY:

1. Classification of elements, general characteristics of Mendeleev's periodic table.
2. Electronic configuration & position of the following elements in the periodic table, hydrogen, carbon, nitrogen, phosphorus, sulphur & chlorine.
3. Drinking water, volumetric composition of water, hard & soft water, temporary & permanent hard water. Physical & chemical methods for removal of hardness of water.
4. Laboratory method of preparation; properties and uses of the following gases; oxygen, nitrogen, chlorine, ammonia, sulphur dioxide, sulphurated hydrogen & hydrogen chloride.
5. Difference between metals & non metals, metallurgy of Aluminum.

### C. ORGANIC CHEMISTRY:

1. Introduction of organic chemistry. Definition and scope of organic chemistry, difference between organic & inorganic compounds. Preliminary introduction of tetrahedral nature of carbon atom.
2. Classification & nomenclature of organic compounds-Aliphatic & Aromatic (Homologous Series).
3. Methods of preparation and properties of Paraffins (Methane and Ethane) and unsaturated hydrocarbons (Ethylene and acetylene).
4. Simple introduction of Plastic, artificial fiber, medicines, explosives, soap and detergents.

### D. NUMERICAL PROBLEMS:

Numerical problems based on the following topics – laws of chemical combination, percentage composition, Empirical and molecular formula, chemical equation, equivalent weight, valency, molecular weight of Volatile substances, Graham's Law of diffusion and Gas equation.

## **SYLLABUS FOR MANAGEMENT DIPLOMA ENTRANCE EXAMINATION-2020**

There will be only one objective paper in the entrance examination for this course and the subjects to be covered in the entrance examination will be English & Hindi, Comprehension, General Knowledge, Simple Arithmetic's, Algebra, General awareness about Geography, Economics, History and Commerce up to Intermediate standard.

**SYLLABUS FOR THREE-SEMESTER POST DIPLOMA IN COMPUTER APPLICATION ENTRANCE EXAMINATION-2020**

There will be only one objective paper in the entrance examination. The subjects to be covered for this entrance examination will be general English, general knowledge, numerical ability, reasoning & general awareness in physics and Math.

## SAMPLE QUESTION PAPER EXAM

Instruction: - Choose the most appropriate alternative of following question:

### MATHEMATICS

Q 1. Volume of right cylinder is:

- (A)  $\pi r^2 h$                       (B)  $\sqrt{3} p r^2 h$                       (C)  $\pi r^2$                       (D) None of these

Q 2. The room is 30 meter X 18 meter. The cost of carpeting it at the rate of Rs. 2 per square meter will be:

- (A) 980                      (B) 12000                      (C) 800                      (D) 1080

Q 3. The altitude AD of triangle ABC in which angle A is acute is 10 cm. if BD = 10 cm and CD =  $10\sqrt{3}$ , what is angle of BAC?

- (A)  $60^\circ$                       (B)  $90^\circ$                       (C)  $105^\circ$                       (D)  $120^\circ$

### PHYSICS & CHEMISTRY

Q 4. How will the period of oscillation of simple pendulum be arrested if it is moved from the surface of earth to a mine?

- (A) it will increase                      (B) it will decrease                      (C) it will not change                      (D) it will become zero

Q 5. An open pipe is suddenly closed with the result that, the second overtone of the closed pipe is found to be higher in frequency by 100 Hz, than the first overtone of the original pipe. The fundamental frequency of open pipe will be:

- (A) 100 Hz.                      (B) 300 Hz.                      (C) 150 Hz.                      (D) 200 Hz.

Q 6. A beam of light from air enters into water. Which of the characteristics of light will not change in water?

- (A) Wavelength                      (B) amplitude                      (C) velocity                      (D) frequency

Q 7. Which one of the following substances is formed when candle burns in chlorine?

- (A) HCl                      (B) H<sub>2</sub>O                      (C) NaCl                      (D) KCl

Q 8. Which one of the following oxides is soluble in water?

- (A) Zinc oxide                      (B) calcium oxide                      (C) ferric oxide                      (D) ferrous oxide