RAJASTHAN PRE ENGINEERING TEST

RPET-2010

Information Booklet



BOARD OF TECHNICAL EDUCATION, RAJASTHAN W-6, Residency Road, Jodhpur 342 032

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RAJASTHAN PRE ENGINEERING TEST (RPET-2010) FOR ADMISSION TO FIRST YEAR OF B.TECH./ B.E. COURSES FOR THE SESSION 2010-2011

INSTRUCTIONS FOR THE GUIDANCE OF CANDIDATES APPEARING IN RPET-2010

1. RPET FORM:

The set of RPET form consists of the following:

- (a) **RPET-2010 Application Form** It is in the form of OMR sheet which is to be filled in by the candidates using BLACK BALL POINT PEN ONLY in their own handwriting (Use HB pencil for darkening the circles). It should neither be folded nor to be stapled in any case.
- (b) **Information Booklet** This booklet consists of 32 pages. It contains Instructions, Syllabus, Sample Questions and Sample answer sheet etc., for the guidance of the candidates about RPET-2010. It is to be retained by the candidate for their own use. *The candidate should read the booklet carefully before filling up the application form and note the contents of the Syllabus and Examination Scheme carefully and prepare for RPET-2010 accordingly.*
- (c) One Big Envelope Duly filled RPET-2010 OMR Application Form (with all enclosures) should be put into this envelope and sent to the Coordinator, RPET-2010, Board of Technical Education, Rajasthan, W-6, Residency Road, Jodhpur 342 032 by Registered post / Speed post (not by courier). The same can also be dropped in the locked box kept in the RPET office, Board of Technical Education, Rajasthan, Jodhpur. In any case, the Application Form should not be handed over to any person.

Note: Put the enclosure in the envelope. Do not staple them with OMR sheet.

2. ELIGIBILITY CRITERIA FOR ADMISSION:

A candidate must ensure that he / she is eligible for admission to various Governments aided and private unaided technical institutions of Rajasthan (except BITS Pilani, MNIT Jaipur and other Deemed and Private Universities) before filling up the RPET-2010 Application Form. If a non-eligible candidate is admitted due to any reason then the admission of such a candidate will be cancelled as soon as the mistake is detected even at later stage. Various eligibility criteria for admission to B.Tech./B.E. course shall be as under:

2.1 EDUCATIONAL QUALIFICATION:

- A. The minimum academic qualification for admission to B.Tech./B.E. program in Rajasthan is a pass in the final examination of 10+2 (Class XII) of Board of Secondary Education, Rajasthan or any other examination recognized equivalent thereto by Board of Secondary Education, Rajasthan.
- B. Subject combination required in the qualifying examination for admission to B.Tech./B.E. courses shall be as under:

Course	Compulsory Subjects	Any one of the Optional Subjects
B.Tech./ B.E.	Physics & Mathematics	(1) Chemistry (2) Bio-technology
		(3) Computer Science (4) Biology

C. Candidates who are appearing in the qualifying examination class XII in 2010 will be provisionally permitted to appear in RPET-2010. Such candidates will only be eligible for subsequent counseling and admission, provided they pass the class XII Examination with the subjects as mentioned in above table. However, all such candidates will have to produce the proof of having passed the qualifying examination at the time of submission of the prescribed Option Form, otherwise their candidature will be cancelled.

2.2 AGE:

Only those candidates whose date of birth falls on or after October 01, 1985 are eligible. However, in the case of Scheduled Caste (SC), Scheduled Tribe (ST) and Physically Handicapped (PH) candidates, upper age limit is relaxed by 5 years, i.e. SC, ST and PH candidates who were born on or after October 01, 1980 are eligible. Date of birth as recorded in the Secondary Education marksheet / certificate only will be taken as authentic.

2.3 MEDICAL FITNESS:

A candidate desirous of admission to Engineering Colleges will have to deposit the Medical Fitness Certificate at the time of reporting in the allotted institution on the prescribed form certified by a Medical Officer of the Government of Rajasthan or a Registered Medical Practitioner as per medical standards laid down below:

- **Height**: Not less than 1.5 m for male candidates and not less than 1.4 m for female candidates.
- **Weight**: Not less than 41 kg. for male candidates and 37 kg for female candidates (Approximately).
- **Chest Measurement**: Not less than 69 cm with satisfactory limits of expansion and contraction (for male candidates only).
- Heart & Lungs: No abnormality.
- **Hernia**, **Hydrocele**, **Piles etc**.: Presence of any of these will be a temporary disqualification to be rectified before joining the courses of study.
- Vision: Normal. Where defective, it must be corrected to 6/9 in the better eye and 6/12 in the worse eye. Eyes should be free from congenital and other diseases. In case of admission to Mining Engineering courses, the candidates must be free from colour blindness (inability to distinguish between principal colours) also.
- **Hearing**: Normal. Where defective, it must be corrected.
- **Speech**: Normal.

The doctor will also have to certify that the candidate is medically fit for engineering profession.

2.4 DOMICILE CRITERIA:

The RPET-2010 is open to the candidates of Rajasthan Domicile only. The domicile status of Rajasthan of any candidates will be ascertained as per any one of the following crieteria.

Domicile Category - A

The candidate himself / herself or any of his / her natural parents (father / mother) is a bonafide resident of Rajasthan. [Refer Certificate No. 1 (i)]

OR

Domicile Category - B

Candidate has studied continuously as a regular student in recognized educational institutions in Rajasthan for the preceding three years up to and including the year in which he/she has passed / appearing the qualifying examination (i.e. X, XI and XII classes). [Refer Certificate No. 1 (ii)]

OR

Domicile Category - C

Candidate is a son/daughter of either a serving employee or of a retired employee of any of the following: [Refer Certificate No. 1(iii)]

- (i) Government of Rajasthan (including officers of All India Service borne on the State cadre of Rajasthan).
- (ii) Undertakings/ Corporations/ Improvement Trusts/ Municipal Boards/Panchayat Samities / Cooperative Bodies duly constituted by the Government of Rajasthan.
- (iii) Statutory Bodies and Corporations formed under the Indian Companies Act incorporated in Rajasthan.

OR

Domicile Category - C

Candidate is a son/daughter of an employee of any of the Universities in Rajasthan or Board of Secondary Education, Rajasthan or Government aided Engineering Colleges of Rajasthan who has

put in at least three years service on the date of submission of application in any of the above bodies. [Refer Certificate No. 1 (iv)]

OR

Domicile Category - C

Candidate is a son/daughter of an employee of Central Government or Institutions of the Central Government including Public Sector Undertakings or Corporations and who is on the regular rolls and is serving in the State of Rajasthan on the date of application. [Refer Certificate No. 1 (v)]

ΟR

Domicile Category - C

Candidate is a son/daughter of an employee of Rajasthan origin, serving in Defence/Central Government services/Public Sector undertakings/National Institutes of Government of India, who has put in at least three years service on the last date for submission of application irrespective of his/her place of posting provided a certificate is submitted by the employee from the employer to this effect stating the State of origin and the home town as given by him/her at the time of his/her entry into service. [Refer Certificate No. 1 (vi)]

Note:

- 1. Ex-Servicemen (Ex-S) and the Defence Killed (DK) persons should be of Rajasthan origin for eligibility of their children in these categories. The State of origin and home town as entered in the discharge certificate shall only be accepted as proof in respect of the above. A copy of discharge certificate and PPO must necessarily be enclosed to seek reservation/ relaxation in this category. The discharge certificate and PPO must be produced in original at the time of Counseling.
 - For the wards of defence personnel from other State but serving in the State of Rajasthan, the domicile condition is waved off to enable them to appear in the entrance test and be selected in general quota. However, they would not be eligible for Ex-S/DK category.
- 2. Sons/daughters of the displaced persons from Jammu & Kashmir (KM) shall be eligible for admission to Engineering Colleges through RPET-2010. The candidate has to submit a certificate from the competent authority as a proof of being son/daughter of a displaced person from Jammu & Kashmir.

3. RESERVATION OF SEATS:

As prescribed by the Govt. of Rajasthan (except in case of Private unaided Institutions and 50% seats in the self finance course of the aided institutions) the reservation of seats will be made subject to the prevalent statutory provisions of the State of Rajasthan viz. 16% for SC candidates, 12% for ST candidates and 21% for candidates belonging to non-creamy layer OBC category.

Provision will also be made for horizontal reservation of 3% for candidates belonging to physically handicap, 25% for women category and 3% for dependants of Defence Killed/Ex-servicemen / Gallantry award winners.

Priority for Category of Defence Persons will be as follows:

Code	Category
EXS1	Killed in action
EXS2	Disabled in action and boarded out from service/Died while in service with death attributable to military service/Disabled in service and boarded out with disability attributable to military service
EXS3	Gallantry award winners
EXS4	Ex-Servicemen

Reservation of girls in this category : 50% of the reserved seats in this category are earmarked for the girls.

KM Category:

5% of total intake capacity over and above the sanctioned strength in each of the institutions will be reserved for Kashmiri migrants. Sons/daughter of the displaced persons from Jammu & Kashmir shall be eligible for admission to Engineering colleges through RPET-2010. The candidate has to submit a certificate from the competent authority as a proof to being son/daughter of displaced person from Jammu & Kashmir.

Acronyms of various categories are as follow:

Category-I	Category-II
GEN – General	Ex-S – Ex Serviceman
SC – Scheduled Caste	DK – Defence Killed
ST – Scheduled Tribe	PH – Physically Handicapped
OBC – Non creamy layer Other Backward Classes	KM – Kashmiri Migrants

Definition of SC / ST / Non creamy layer OBC Category: The benefit of reservation under SC / ST / Non creamy layer OBC category shall be available only to the candidates of the castes as notified under Presidential order for the State of Rajasthan, for which, the certificate should be issued by the competent authority as mentioned in Certificate No. 2 in this booklet. However for claiming the benefit in non creamy layer OBC category, the candidate will also have to furnish an undertaking in the prescribed performa as given in Certificate No. 2.

It is further clarified that candidates belonging to **creamy layer OBC category** are **not entitled** for reservation benefits and shall be treated in General category, therefore, creamy layer OBC candidates should fill General category in their OMR application form.

Exact number of seats in various branches (Seat Matrix) will be notified through web site before counseling.

Note: For seeking the benefit of reservation in any category, sufficient documentary proof must be submitted along with the Application Form (the formats of certificates for various reservation categories are prescribed in this booklet). Category once indicated at the time of submission of application form along with documentary proof will not be changed afterwards in any case.

4. COST OF RPET-2010 APPLICATION FORM:

- 4.1 The cost of RPET-2010 Application Form is **Rs. 700**/-. It also includes the RPET-2010 examination fees.
- 4.2 This amount deposited for RPET-2010 is neither refundable nor transferable nor adjustable for future RPET.
- 4.3 A plea that the candidate failed to receive the information for appearing in the RPET-2010 will not be accepted as a ground for the refund of this amount or any other dues.

5. SUBMISSION OF RPET - 2010 APPLICATION FORM:

The complete RPET - 2010 Application Form duly filled in by candidate's own handwriting shall be submitted through any one of the following modes so as to reach the RPET-2010 office, on or before 05.00 P.M. of 10th April, 2010 irrespective of the fact whether 10th April, 2010 is a working day or not

(i) By Registered Post/ Speed Post (not by courier in any case) to

Coordinator RPET - 2010,

Board of Technical Education, Rajasthan W-6, Residency Road, Jodhpur –342 032

(ii) In the drop box placed at the RPET-2010 office.

In any case, the Application Form should not be handed over to any person. No other institute/agency is authorised to collect the form on behalf of RPET-2010.

6. ENCLOSURES TO BE SUBMITTED ALONG WITH RPET-2010 FORM:

- 6.1 An attested copy of Certificate / Marksheet of High School / Secondary bearing Date of Birth of the candidate.
- 6.2 An attested copy of Marksheet of 10+2 Examination, as a proof of having passed the qualifying examination. In case of result of XII is awaited, zerox copy of admission card of XII Examination-2010 is to be enclosed.
- 6.3 An attested copy of relevant certificate necessary for claiming reservation. (*Refer Certificate No. 2 to 6 as applicable*)
- 6.4 An attested copy of the relevant domicile certificate whichever is applicable [*Refer Certificate No. 1(i) to 1(vi)*].

Note: To avail benefit of domicile, reservation etc., the candidate will have to produce the requisite certificate(s). For the convenience of candidates formats of such certificates are available in this booklet. The candidates can reproduce the format of the certificate(s) by typing / photocopying etc. for the purpose of certification from appropriate authority.

7. REMOVAL OF DEFECIENCY (if any) IN APPLICATION FORM:

- 7.1 In case the Application Form received from the candidate is found to be incomplete in any respect, such deficiencies will be conveyed to the candidate through our websites. **Candidates are advised to visit the web site regularly.**
- 7.2 For the removal of deficiency(ies), candidates are required to submit requisite documents along with a fee in the form of a D.D. of Rs. 100/- (Rs. One hundred only) in favour of "Coordinator RPET-2010" payable at Jodhpur.

8. ADMISSION CARD FOR RPET-2010:

Admission Card for RPET-2010 will be sent to the candidate at his/her address as mentioned in RPET-2010 Application Form. The Coordinator RPET-2010 reserve the right to withdraw the permission granted by mistake to a candidate who is not eligible to appear at the RPET-2010 even though the Admission Card has been issued and produced by the candidate before the Centre Superintendent of RPET-2010.

In case the admission card is not received by the candidate till 10.05.2010, the candidate should contact the coordinator RPET-2010 immediately.

9. EXAMINATION SCHEME:

RPET-2010 shall consist of single examination of three hours duration containing 40 objective type questions in each of the subjects of Physics, Chemistry & Mathematics. The total no. of questions will be 120 carrying one mark each. There is no negative marking for wrong answer. The questions in the test booklet will be in Hindi as well as in English. However, in case of any difference in Hindi & English versions of question, the questions in English version shall be treated as valid.

10. SCHEDULE OF EXAMINATION:

RPET-2010 will be conducted on 20th MAY, 2010 (Thursday) from 09.00 a.m. to 12.00 Noon.

11. UNFAIR MEANS:

Warning: The candidates are warned that with the promulgation of Rajasthan Public Examination (Prevention of Unfair Means) Act, 1992 by the Government of Rajasthan vide Extraordinary Gazette Notification dated 11th November 1992, the use of unfair means at a public examination is an offence under the law and accordingly the person(s) found guilty of resorting to or using unfair means at the RPET- 2010 can be punished with imprisonment for a term which may extend up to 3 years or with fine which may extend up to Rupees Two thousand or with both.

- 11.1 The following acts shall be considered as unfair means:
 - Possession of any objectionable material.
 - Tearing of the Question Paper Booklet or any part thereof including answer sheets.

- Any attempt by candidate to obtain any information about question(s) set in any examination paper or communication with any candidate in the examination hall.
- Communication by the candidate with any person concerned with the examination work with the intention of influencing him/her for the award of marks.
- Communication by the candidate with any person with the intention of obtaining information about the marks secured before declaration of the RPET-2010 result.
- Any activity by the candidate, which in the opinion of the Invigilator is likely to give unfair advantage to him/her.
- Refusal/Resistance by the candidate for search to find out whether he/she possesses any objectionable material.
- Taking away the Question Paper Booklet and/or Main Copy and first carbon copy of the answer sheet outside the examination hall.
- 11.2 If a complaint is lodged against a candidate that he/she used or attempted to use unfair means in the examination, the matter shall be placed before the Unfair Means Committee to be appointed by the Chairperson, Centralised Admission Coordination Committee (CACC) for recommendation and accordingly the matter will be decided.

12. EVALUATION AND DECLARATION OF RESULT

- 12.1 Merit will be prepared on the basis of total marks obtained by the candidate in RPET-2010.
- 12.2 Cut off Percentage will be decided by the Centralised Admission Coordination Committee (CACC) before declaration of result. However, percentage of passing for SC & ST candidates will be 5% less than that for other categories. In the event if vacancies exist in SC / ST category, the vacancies of SC category can be filled by ST candidates and vice versa.
- 12.3 The merit of a candidate in RPET-2010 will be conveyed through news paper, website and notice board of RPET.
- 12.4 The marks sheet shall be dispatched by post, soon after the publication of RPET merit list. In case a candidate does not receive the marks sheet within two weeks of publication of merit list, for any reason whatsoever, he/she should write to the Coordinator RPET 2010 for another copy which shall be issued on payment of Rs. 50/- by Bank Draft in favour of the Coordinator RPET-2010 payable at Jodhpur.
- 12.5 The merit of the candidates securing equal marks in aggregate in the RPET-2010 will be decided in the following order:
 - The marks obtained in Mathematics in RPET-2010 will determine the relative merit of such candidates.
 - b) In case of marks in Mathematics also being equal, the marks obtained in Physics at RPET-2010 will determine the merit.
 - c) In case there is a tie on the basis of the above criteria, the relative merit will be decided by the age of the candidate. The candidate of higher age (older candidate) will be placed on higher merit.

13. RE-EVALUATION / RE-TOTALLING:

The candidates will have to make request on plain paper giving details such as Roll No, Name, Centre etc. to the Coordinator RPET-2010 within 07 days (Seven days) from the display of ANSWER KEYS of RPET-2010 (on RPET Notice Board) and on payment of Rs. 100/- by Bank Draft in favour of the Coordinator RPET-2010 payable at Jodhpur.

- The answer sheets of the test shall not be subject to production before any Court (Civil or Criminal) or before the candidate or any body else on his / her behalf or before any internal or external authority.
- The answer sheets of candidates shall be preserved only for 3 months from the date of publication of the RPET-2010 merit list.

14. FEE STRUCTURE:

Pursuant to the judgment dated 14-8-2003 of Hon'ble Supreme Court in the case titled as Islamic Academy of Education V/s State of Karnataka, the State Government has constituted a State Level Fee Committee for determination of fee structure for various technical courses including degree Engineering

courses. As per the directions of the State Level Fees Committee the interim fee structure for Degree Engineering courses for the session- 2009-2010 was as under:

		GEN	ERAL			GIRLS	S/SC/ST	
	Tuition Fee	Develop- ment Fee	Total Fee	Caution Money (Refundable)	Tuition Fee	Develop- ment Fee	Total Fee	Caution Money (Refundable)
Govt. Aided Seat in Govt. Aided Engg. Colleges			20000/-	2000/-			10000/-	2000/-
Self Financed Seats in Govt. Aided Engg. Colleges	38200/-	8800/-	47000/-	5000/-	38200/-	8800/-	47000/-	5000/-
Self Financed Seats in Private Engg. Colleges	38200/-	8800/-	47000/-	5000/-	38200/-	8800/-	47000/-	5000/-

The fee committee has yet not approved final fee structure for academic year 2010-2011. Further, it may be noted that the fee structure for the session 2010-2011 will be finalized shortly by the State Level Fee Committee. The candidates are required to pay the fee as prescribed by the Committee. The fee once deposited by the candidate for admission will not be refunded.

15. TUITION FEES WAIVER SCHEME:

Depending upon the option given by the institute(s) for adopting the Tuition Fee Waiver Scheme (TFWS), benefits of TFWS will be provides to eligible candidates as per AICTE guidelines.

16. ADMISSION PROCEDURE:

16.1 Candidates eligible for admission will have to fill an **Option Form along with a demand draft** of Rs. 10,000/- in favour of Coordinator RPET-2010 payable at Jodhpur. No Option Form will be valid without such fees. The Option Form and other instructions will be provided to the candidates on the examination day. The admissions will be carried out on the basis of merit in RPET-2010 and the order of options filled in by the candidates in the Option Form. The candidates are advised to exercise their options very carefully.

The allotment of institute and branch will be carried out through the computer software by strictly following the order of merit, seats available and the order of options filled in by the candidate in the Option Form. No correction will be allowed in the Option Form once submitted. No admission shall be made after the date as fixed by Chairperson, CACC RPET-2010.

Candidates are advised in their own interest to secure information regarding the admission from the authorised web site of RPET and Notice Board of Coordinator RPET-2010. The non-receipt of communication to the candidate from Coordinator RPET-2010, Board of Technical Education, Rajasthan, Jodhpur will not be accepted as a ground for not submitting the Option Form or non-reporting in the allotted institute on the scheduled time and date. The candidate's allotment shall stand automatically cancelled if he/she does not report IN PERSON to the allotted institute as per schedule. In such case his registration with RPET-2010 will be cancelled.

- 16.2 Candidates who have appeared at the qualifying examination (10+2) of 2010 will have to submit the attested photocopy of the mark sheet of passing the qualifying examination with Option Form, failing which his/her Option Form will not be accepted and the candidature will be cancelled automatically.
- 16.3 Adjustment of the amount Rs. 10000/- deposited with the Option Form :
 - a. This amount will be adjusted against fees for those candidates who have been allotted by RPET-2010 and reported in the allotted institute.
 - b. This amount will be refunded to only those candidates who have not allotted any institute by RPET-2010 (Choice Exhausted).
 - c. If a seat is allotted to a candidate as per his/her options & merit and if he/she does not report in the allotted institute, then this amount will be forfeited (i.e. not refunded in any case).

Note: In case of any other mode of counseling, separate instructions / guide lines will be provided to the students through Newspapers, Website etc.

17. VALIDITY OF ADMISSION:

- 17.1 Admission of the candidate will be provisional till the eligibility certificate is issued by the concerned University.
- 17.2 If for reasons to be recorded in writing, the CACC suspects that a particular candidate has obtained a certificate by misrepresenting the facts, the matter will be referred to the competent authority(ies). On receipt of the report, the CACC would take the final decision regarding the admission of the candidate. His/Her admission will be treated as provisional during this period.
- 17.3 Permission to appear in RPET-2010 shall not guarantee for fulfilling eligibility criteria for admission and only the eligible candidates will be considered for counseling and subsequent admission as per norms.

18. DEPOSITION OF FEES AND ORIGINAL DOCUMENTS:

At the time of reporting in the allotted institute, the candidates will have to deposit all original documents, certificates and a specified amount towards fee. The allotted institute would check the documents and other required certificates with originals. If the admission is granted, the amount would not be returned / refunded under any circumstances. The original documents will be returned by the respective College after the University enrolment has been done.

19. HOSTEL ACCOMMODATION AND COMMENCEMENT OF SESSION:

Information regarding hostel facilities and starting of session can be obtained from the allotted institute.

EXAMINATION INSTRUCTIONS FOR THE CANDIDATES

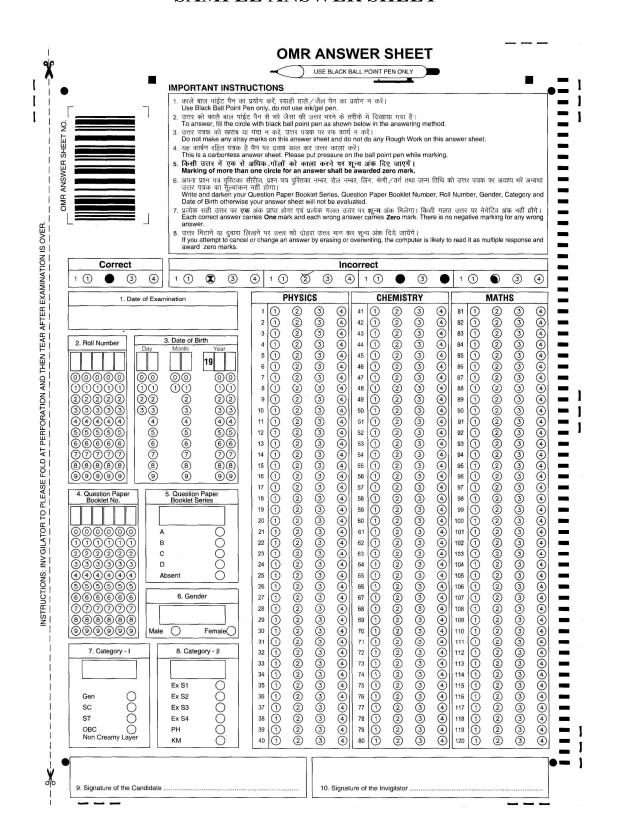
- 1. Examination will start at 9.00 am on 20th May, 2010. The duration of Examination will be of 3 hours.
- 2. The doors of examination hall shall be opened on the examination day at 8.30 a.m.. No candidate shall be admitted to the examination hall after 30 minute of starting the examination.
- 3. A seat marked with Roll Number, will be allotted to each candidate. The candidate should ensure that he/she has occupied the correct seat only. If any candidate is found to have occupied the seat of another candidate, such candidates shall be removed from the examination and shall have to accept any other penalty imposed upon them.
- 4. Candidates are required to bring their own **BLACK BALL POINT PEN ONLY** (NOT GEL PEN) for answering the question paper. They must not bring log tables, calculators, mobiles or any other objectionable materials with them in the examination hall.
- 5. Candidates should read the instructions carefully given in the question paper booklet. They shall abide by the instructions issued during the examination, by the Invigilators or the Centre Superintendent.
- 6. The questions in the question paper will be set in English as well as in Hindi.
- 7. Candidate must ensure that question paper booklet contains all the pages and no question is missing. In case of any discrepancy, he/she must inform to the invigilator within 10 minutes to the commencement of the examination thereafter no second question paper booklet shall be issued to a candidate.
- 8. Before attempting the answers, the candidate shall fill in all the entries on the outside of the question paper booklet as well as on the Answer Sheet at the place provided for the purpose by <u>BLACK BALL</u> POINT PEN ONLY.
- 9. The candidate is forbidden to write his/her name or to make such signs as may disclose his/her identity on any part of the answer sheet. Non-compliance of this rule shall be reported to the Coordinator RPET-2010 and shall be punishable as per rules, for adopting unfair means.
- 10. The candidate should indicate the answer in the cage provided for the purpose in the answer sheet itself (by darkening circle in front of respective question number) otherwise such answer(s) should not be evaluated.
- 11. Candidate found acting in a manner, which in the opinion of the invigilator, is likely to give unfair advantage to him/her or to another candidate, shall be suspended forthwith from the RPET-2010 examination by the Superintendent. The Invigilator shall immediately submit a report stating full facts of the case to the Superintendent who shall report the matter to the Coordinator, RPET-2010.
- 12. (i) No candidate shall bring with him/her into examination hall, any objectionable material (i.e. books, notes etc.) for the purpose of being used for answering the question paper. The Invigilator and the Examination Supervisory Staff shall be competent to take search of any candidate to find out

- whether the candidate possesses any objectionable material. Refusal by the candidate to be searched would raise the presumption that he/she is in possession of objectionable material.
- (ii) Any candidate possessing objectionable material, or resisting search by the Invigilator/Examination Supervisory Staff shall be punishable as per rules concerning unfair means.
- 13. No candidate shall leave his/her seat when the examination is going on, without the permission of the Invigilator / Incharge. He/She shall not leave the examination room finally until he/she has handed over his/her question paper booklet and main and first carbon copy of the answer sheet even though these may be unused. If a candidate wishes to invite the attention of an Invigilator, he/she shall stand up in his/her place.
- 14. In case the original Admission Card is lost, its duplicate copy may be obtained on request in writing from the Centre Superintendent on payment of a fee of Rs. 25/- and on submitting two copies of passport size photograph similar to that pasted on admission/application form.
- 15. Do not FOLD/PIN or STAPLE the Answer Sheet.
- 16. Candidate must keep 6 **identical** photographs in reserve for the later use if required.
- 17. Use of whitener on the answer sheet is prohibited as answer sheet will be scanned optically.
- 18. A chemically treated self-carbon answer sheet in triplicate will be provided to the candidate in examination hall for answering the questions. The candidate shall not do any rough work on the answer sheet. All rough work is to be done in the Test Booklet itself. The candidates are required to submit their answer by darken the circle by BLACK BALL POINT PEN ONLY (NOT GEL PEN) in front of the respective question. Questions not attempted must be left blank ONLY. Answer Sheet will be checked for marking.
- 19. Wrong / Correct way of marking the answers.

Wrong Method		Correct Method
21	1234	21 1 2 3 4
22	1234	22 1 2 3 4
23	1234	23 1 2 3 4
24	\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc	24 1 1 3 4
25	(1)(2)(3)(4)	25 1 2 3 4

- 20. The candidate will be allowed to take home the second carbon copy of the answer sheet at the end of examination. The candidates can verify the correctness of their answers from the Standard answer key, which will be published after declaration of the RPET result. The question paper booklet, the main answer sheet and the first carbon copy of the answer sheet are to be handed over to the invigilator before leaving the examination hall.
- 21. For all objective type questions, one (1) mark will be awarded for every correct answer. **There will be no negative marking for wrong answers.**
- 22. The candidates should note the contents of the Syllabus carefully and prepare themselves for RPET-2010 accordingly.

SAMPLE ANSWER SHEET



DETAILED SYLLABUS

(SI system of units to be used) PHYSICS

Measurement and Units: Dimensions of a physical quantity, uses of dimensional analysis, Errors in measurement.

Dynamics of a Particle: Newton's laws, motion in one, two and three dimensions, relative motion, inertial frames, circular motion, spring force, gravitational force, law of gravitation, variation of gravity with altitude, escape velocity, satellite motion, work, kinetic and potential energies, conservation of energy, momentum and angular momentum, elastic collisions in one and two dimensions.

Dynamics of a System of Particles: Centre of mass, motion under external forces, rigid bodies, rotation of a rigid body about a fixed axis, torque, angular acceleration, angular momentum, moment of inertia, radius of gyration, kinetic energy of rotation, combined translational and rotational motions, parallel and perpendicular axes theorems, moment of inertia of a ring, disc, cylinder and sphere.

Simple Harmonic Motion: Basic equation, displacement, velocity and acceleration, graphical and mathematical representation, kinetic and potential energies, Lissajous figures, simple pendulum, compound pendulum as a rigid oscillating body. Mass-spring system, damped harmonic oscillations, forced oscillations and resonance.

Intermolecular Forces: Attractive and repulsive forces, three states of matter, ionic, covalent, Van der Waals and metallic bondings, surface tension, angle of contact, capillarity, pressure difference across a spherical film, determination of surface tension by capillary rise and Jaeger's methods, elasticity, Hooke's law, Young's modulus, shear and bulk moduli.

Kinetic Theory of Gases: Basic postulates, derivation of an expression for pressure exerted by an ideal gas, interpretation of temperature, equipartition of energy, specific heats of monoatomic and diatomic gases.

First Law of Thermodynamics : Dependence of work and heat on path, internal energy, isothermal, isobaric, isochoric and adiabatic processes, specific heats of an ideal gas, Mayer's relation.

Radiation: Black-body, Kirchhoff's law, Stefan's law, Newton's law of cooling, black-body spectrum, Wien's law.

Wave Motion: Progressive waves, superposition principle, beats, stationary waves, vibration of

strings, air columns, resonance, Doppler's principle and its applications to sound and light waves.

Nature of Light: Light as wave motion, plane and spherical waves, Huygen's principle, reflection and refraction at a plane surface, electromagnetic nature of light waves, quantum nature of light, coherent sources; Fresnel's biprism, measurement of wavelength, Fresnel's half -period zones, rectilinear propagation of light, diffraction at a circular obstacle, aperture and a slit for plane waves.

Electrostatics: Conservation and quantization of charge, Coulomb's law, electric field, superposition principle, electric flux, Gauss's law and its applications in simple cases, electric potential and potential difference, electric field and potential due to a dipole, capacitance, capacitors in series and parallel, energy stored in a capacitor.

Electric Circuits: Kirchhoff's laws, Wheat-stone bridge and its applications, potentiometer and its applications.

Magnetic Field: Biot-Savart and Ampere's laws, magnetic field along the axis of a current carrying circular coil, inside a torroid, due to a straight wire, magnetic moment of a current loop, force on a moving charge and on a current carrying wire in a magnetic field, moving coil galvanometer, voltmeter, ammeter, electromagnetic induction, Faraday's and Lenz's laws, self and mutual inductances, transformer, energy stored in an inductor.

Alternating Current Circuits: Rotating coil in a magnetic field, ac, rms and peak values, phase relations between voltage and current in a resistor, inductor, capacitor and their series combinations, impedance and reactance (definitions instantaneous and average power in ac circuits, power factor, wattless current and choke coil. Modern Physics: Photons, photoelectric effect, Bohr's theory of hydrogen-like atoms, X-raysproduction and properties, de Broglie hypothesis, Davisson and Germer experiment, Thomson's experiment, explanation of Bohr's orbits, uncertainty principle, radioactivity, nature of alpha, beta and gamma rays, laws of disintegration, half and mean lives, atomic nucleus, binding energy, nuclear energy by fission and fusion.

Electronics: Thermionic emission, work function, diode rectification and triode amplification, bands in solids (descriptive ideas only), conductors, semiconductors and insulators, intrinsic and extrinsic semiconductors, pn junction and its rectification properties.

CHEMISTRY

Development of Classical Model of an Atom: Bohr model of an atom, calculation of radius of the Bohr's orbit, quantisation of electronic energy levels, Spectral evidence for quantisation, introductory concept of four quantum numbers, Pauli's exclusion principle, Hund's rule, AufBau principle, concept of the spatial distributions of s and p orbitals. Isotopes.

The Periodic Law: Long form of the Periodic Table. Electronic configuration and the Periodic Table. Periodicity in properties, elementary ideas about ionisation potential, electron affinity, electronegativity and atomic radii. Position of hydrogen.

The Theory of Chemical Bonding: The ionic bond, characteristic properties of ionic compounds. The covalent bond. Introductory concept of overlapping of orbitals, σ and π bonds, Co-ordinate bond. Oxidation number. Characteristic properties of covalent compounds, hybridisation as illustrated by common molecules like NH₃, H₂O, CH₄, C₂H₄ and C₂H₂.

Chemical Equilibrium and Ionic Equillibria: Generalised expression of law of mass action and its applications. Arhenius theory, evidence in favour of dissociation theory, ionic product of water, hydrolysis, relation between hydrolysis constant, ionic product of water and dissociation constant, solubility product and its applications to analytical chemistry.

Chemical Kinetics : Order and Molecularity of reaction. Photochemical reactions. Expression for first and second order reactions.

Acids and Bases: Hydrogen and hydroxyl ions in aqueous solution, Lewis concept of acids, dissociation of acids, pH value, Buffer solution, Theory of indicators for acid-alkali titrations, choice of indicators for acid-alkali titrations. Oxidation-reduction, ion electron concept. Solid and liquid state of matter, Crystalline and amorphus solids, Four types of crystalline solids, crystal lattice and unit cell. Types of solutions, properties of solutions, osmosis and osmotic pressure, preparation and properties of colloidal solutions.

Metals: Nature of metallic state. The metallic bond. Occurrence of metals in nature. General principle of metallurgy as illustrated by methods used for the extraction of iron, copper, aluminium and silver from various types of ores.

Preparation and properties of heavy water, ozone and hydrogen peroxide.

s-Block Elements : General characteristics, Trends in variation of properties in periodic table of alkali and alkaline earth metals.

d-Block Elements : General characteristics, Elementary idea about paramagnetism and diamagnetism, different oxidation states of transition elements as illustrated by chromium, manganese and iron.

Classification of organic compounds, nomenclature, Homologous series. Functional groups; Isomerism (position, chain, functional, metamerism). Petroleum as the commercial source of hydrocarbon and organic chemicals, petroleum refining practice, octane number.

General methods of preparation, properties and uses of alkanes (upto five carbon atoms). Isomerism of butanes and pentanes. Substitution reaction (free radical mechanism). Alkenes: General method of preparation, properties and uses, Ethylene: Electrophillic addition (Mechanism). Markownikoff's rule, Peroxide effect.

Alkynes: General methods of preparation, properties and uses, Acetylene: Substitution reaction; Polymerisation.

General method of preparation, properties and uses of mono, di- and tri-halogen derivatives (excluding unsaturated) upto two carbon atoms, haloform reaction, synthetic uses of alkyl halides, polarity of carbon-halogen bond: Elementary concept of nucleophilic substitution. Freons preparation and uses. Grignard reagents and their synthetic applications.

General methods of preparation, properties and uses of alcohols with reference to methyl and ethyl alcohols; Absolute alcohol and power alcohol. Fermentation. General methods of preparation, properties and uses of ether with reference to diethyl ether.

General methods of preparation, properties and uses of aldehydes and ketones with reference to formaldehyde, acetaldehyde and acetone, Polymerization and condensation reaction (No mechanism).

General methods of preparation, properties and uses of monocarboxylic acids with reference to formic and acetic acids.

Derivatives of fatty acids; acetyl chloride, acetamide, acetic anhydride and ethyl acetate, Soaps and detergents. General methods of preparation, properties and uses of aliphatic amines with reference to methyl and ethyl amines. Urea.

Preparation, properties and uses of Benzene (structure excluded), nitrobenzene, aniline and phenol, benzaldehyde, benzoic acid.

Polymers, Examples of natural and synthetic polymers and their importance. Preparation and uses of nylon, terylene and Buna-S.

MATHEMATICS

Algebra: Complex number as an ordered pair of real numbers; real and imaginary parts, absolute value, graphical representation of complex numbers, triangle inequality, complex conjugate co-ordinates, roots of a complex number.

Theory of quadratic equations and expressions; relation between roots and coefficients.

Arithmetic, geometric and harmonic progressions. Permutations and combinations. Elementary applications of mathematical induction. Binomial theorem. Determinants of order two and three and their elementary properties.

Matrices: definition, addition, subtraction and multiplication, transpose and adjoint of a matrix, inverse of a matrix.

Trigonometry: De Moivre's theorem and its applications; hyperbolic and inverse hyperbolic functions, separation of real and imaginary parts of a complex quantity.

Co-ordinate Geometry: Rectangular cartesian coordinates, distance between two points, area of a triangle. Straight lines, angle between two lines, parallel and perpendicular lines. Circle, equation of tangent and normal to a circle. Pole, polar, radical axis. Parametric representation. Parabola, tangent and normal, its properties.

Coordinate axes and planes in three-dimensional space, coordinates of point in space, distance between two points, section formula, direction cosines & direction ratios of a line joining two points, projection of the join of two points on a line, angle between two lines, whose direction ratios are given.

Calculus: Functions; into, onto and one-one function, polynomial, rational, trigonometric, logarithmic and exponential functions.

Notion of limit and continuity of a function, derivative of a function at a point; derivatives of sum, difference, product and quotient of functions, derivatives of composite functions, implicit functions and inverse trigonometrical, logarithmic and exponential functions. Logarithmic differentiations. Geometrical interpretation of derivative; successive differentiation, tangents and normals. Sign of the derivative and monotonicity. Maximum and minimum values of a function.

Integration as the inverse process of differentiation; integration by parts and by substitutions; definite integral and its application for the determination of areas (simple cases), properties of definite integrals.

Vectors: Addition of vectors, multiplication by a scalar; scalar product, cross product and scalar triple product with geometrical applications.

Probability: Probability; sum and product laws; conditional probability.

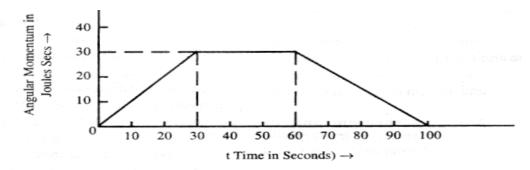
SAMPLE QUESTIONS

नमूने के प्रश्न

PHYSICS

भौतिक विज्ञान

- 1. The variation of angular momentum with time for a rigid body rotating about an axis is as shown in the figure.
- किसी अक्ष के सापेक्ष गितशील एक स्थूल वस्तु के कोणीय संवेग का समय के साथ परिवर्तन चित्र में दिखाया गया है।



The torque at t = 40 seconds is:

- (1) 1 Joule
- (2) 1 Newton
- (3) Zero
- (4) 0.75 Joule
- 2. The Pendulum of a grand-father's clock swings 10 cm from side to side per second. Assuming it to be a simple pendulum, show that the peak velocity of the bob (in cm/sec) is nearly:
 - (1) 16
 - (2) 12
 - (3) 8
 - (4)4
- 3. Ball I having 1 kg mass strikes a glancing blow to another ball II at rest in an elastic collision with a speed of 5m/s. Ball I then moves off at right angle to its initial direction at a speed of 4 m/s. The momentum of ball II after collision in magnitude would be nearly:
 - (1)5
 - (2) 6
 - (3) 1
 - (4) 2
- 4. For a gm molecule of hydrogen and helium gases two specific heats (C_p and C_v) are found. Choose the correct statement concerning these specific heats:
 - (1) The ratio C_p / C_v for both gases is equal
 - (2) The ratio C_p^r/C_v for helium is more than for hydrogen.
 - (3) The ratio C_p / C_v for hydrogen is more than for helium
 - (4) The difference $(C_p C_v)$ for both is unequal

- (1) 1 जूल
- (2) 1 न्यूटन
- (3) शून्य
- (4) 0.75 जूल
- दादाजी की दीवार घड़ी का लोलक एक सिरे से दूसरे सिरे तक 10 से.मी. की दूरी एक सैकण्ड में तय करता है। इसे एक सरल लोलक मानते हुए इसका अधिकतम वेग (से.मी./सै.) लगभग होगा:
 - (1) 16
 - (2) 12
 - (3) 8
 - (4) 4
- 3. एक गेंद I जिसका द्रव्यमान 1 कि.ग्रा. है 5 मी. / सै. के वेग से चलती हुई एक दूसरी गेंद, गेंद II से टकराती है। टक्कर पृष्ठ सर्पी एवं प्रत्यास्थ है। टक्कर के पश्चात् गेंद I अपनी प्रारम्भिक दिशा से 90^0 का कोण बनाती हुई 4 मी. / सै. की गति से चली जाती है। टक्कर के पश्चात् गेंद II के संवेग का मान (कि.ग्रा. मी. / सै.) निम्न में से किसके निकटमत होगा:
 - (1) 5
 - (2) 6
 - (3) 1
 - (4) 2
- 4. ग्राम अणु—भार हाइड्रोजन व हीलियम गैसों के लिये दोनों की विशिष्ट ऊष्मा $(C_p$ और $C_v)$ ज्ञात की गई। निम्न कथनों में से सही कथन बताइये :
 - (1) C_p / C_v अनुपात दोनों गैसों के लिये बराबर है।
 - (2) C_p/C_v अनुपात हीलियम का हाइड्रोजन से अधिक है
 - (3) C_p/C_v अनुपात हाइड्रोजन का हीलियम से अधिक है।
 - (4) (Cp-Cv) अन्तर दोनों गैसों का असमान है।

- 5. Two slits are placed 2 mm apart and 300 cm from the screen. When light of 6000 angstroms is used, the bright lines of the interference pattern will be separated by a distance in mm equal to:
 - (1) 3.1
 - (2)4.15
 - (3) 0.90
 - (4) 9.00
- 6. Two locomotives moving with a speed of 36 km/ hr recede from each other, One of the locomotives whistles with a frequency of 200 Hz. Taking velocity of sound in air to be 340 m/s, the pitch of whistle (in Hz) as heard by an observer in the other locomotive will be:
 - (1)188
 - (2) 212
 - (3)200
 - (4) 224
- 7. What is the maximum charge (in coulombs) that can be conveyed to a conducting sphere of diameter 10 cm, if the breakdown voltage of air. is 2 x 106 volts/m?
 - (1) 2.0 x 10-4
 - (2) 5.6 x 10-7
 - (3) 5.6 x 10-2
 - (4) 2.0 x 102
- 8. In a potentiometer a long uniformly thick resistance wire is used to have
 - (1) high resistance of potentiometer
 - (2) small heating of the wire
 - (3) high potential drop along the wire
 - (4) uniform and small potential gradient
- 9. Voltage of a power line at a given place is 220V. The peak voltage (in volts) will nearly be:
 - (1)440
 - (2)220
 - (3)310
 - (4)345
- 10. The wave length of first line of the Lyman series of a ten times ionized Na atom (Z = 11) is about (the first of the Lyman series for hydrogen is $1216 \text{ Å or } 1.216 \text{ x } 10^{-7} \text{ m}$):
 - (1) 0.1 Å
 - $(2)\ 10\ Å$
 - $(3) 10^3 \text{ Å}$
 - (4) 100 Å

- 5. 2 मि.मी. की दूरी पर दो रेखा छिद्र एक पर्दे से 300 से.मी. दूर रखे हैं। 6000 एगस्ट्राम के प्रकाश के लिये व्यक्तिकरण चित्राम में दीप्त फ्रिजों की दूरी (मि.मी.) में होगी:
 - (1) 3.1
 - (2)4.15
 - (3) 0.90
 - (4) 9.00
- 6. दो इंजन 36 कि.मी. / घण्टे के वेग से चलते हुए एक दूसरे से दूर जा रहे हैं। एक इंजन 200 हट्ज् की आवृत्ति से सीटी बजाता है। दूसरे इंजन में बैठे प्रेषक द्वारा सुनी सीटी का तारत्व होगा। (हवा में ध्विन का वेग 340मी. / से. लिजिए):
 - (1) 188
 - (2) 212
 - (3) 200
 - (4) 224
- 7. यदि हवा की भंजन वोल्टता 2×10^6 वोल्ट / मी. हो तो 10 से.मी. व्यास के एक चालक गोले को अधिक से अधिक कितना आवेश (कुलॉम में) दिया जा सकता है ?
 - (1) 2.0×10^{-4}
 - $(2) 5.6 \times 10^{-7}$
 - $(3) 5.6 \times 10^{-2}$
 - $(4) 2.0 \times 10^2$
- 8. विभवमापी में लम्बा तथा एक समान मोटा प्रतिरोधक तार इसलिये काम में लिया जाता है, ताकि
 - (1) विभवमापी का उच्च प्रतिरोध हो।
 - (2) तार कम गर्म हो।
 - (3) तार पर उच्च विभवान्तर पैदा हो।
 - (4) कम तथा एक समान विभव प्रवणता हो।
- 9. किसी स्थान पर पावर लाइन की वोल्टता 200 वोल्ट है। शिखर वोल्टता (वोल्ट में) लगभग होगी :
 - (1)440
 - (2)220
 - (3)310
 - (4)345
- 10. हाइड्रोजन के लिये लाइमन श्रेणी की पहली लाइन की तरंग दैर्ध्य 1216 Å या 1.216 x 10⁻⁷ मी. है। दस बार आयनित सोडियम परमाणु (Z=11) के लिये लाइमन श्रेणी की पहली लाइन की तरंग दैर्ध्य लगभग होगी:
 - (1) 0.1 Å
 - $(2)\ 10\ Å$
 - $(3) 10^3 \text{ Å}$
 - (4) 100 Å

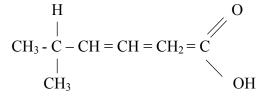
CHEMISTRY

रसायन विज्ञान

- 1. If Chloroform is left open in air in prsence of sun rays
 - (1) explosion takes place
 - (2) poisonous gas phosgene is formed
 - (3) polymerisation occurs
 - (4) no reaction takes place
- 2. What is the correct representation for the solubility product constant of Ag₂ CrO₄.?
 - $(1) [Ag^{+}]^{2} [CrO_{4}]$
 - $(2) [Ag^{+}] [CrO_{4}]$
 - $(3) [2Ag^{+}] [CrO_{4}]$
 - $(4) [2Ag^{+}]^{2} [CrO_{4}]$
- 3. The gastric juice in our stomach contains enough hydrochloric acid to make the hydrogen ion concentration about 0.01 mole/1. The pH of the gastric Juice is:
 - (1) 0.01
 - (2) 1
 - (3) 2
 - (4) 10
- 4. In which of the following reactions, there is no change in valence?
 - (1) 4KClO₃ = 3KClO₄ + KCl
 - (2) $SO_2 + 2H_2S = 2H_2O + 3S$
 - (3) $BaO_2 + H_2SO_4 = BaSO_4 + H_2O_2$
 - (4) $2BaO + O_2 = 2BaO_2$
- 5. A metallic carbide on reaction with water gives a colourless gas which burns readily in air and which gives a precipitate with ammonical silver nitrate solution. The gas evolved is:
 - (1) Methane
 - (2) Ethene
 - (3) Ethylene
 - (4) Acetylene
- 6. Compared to the first ionization potential of an atom the second is
 - (1) the same
 - (2) greater
 - (3) smaller
 - (4) negligible
- 7. Sodium reacts with water more vigorously than lithium, because it
 - (1) has higher atomic weight
 - (2) is more electronegative
 - (3) is more electropositive
 - (4) is a metal
- 8. Acetic acid is obtained when
 - (1) methyl alcohol is oxidised with potassium permanganate
 - (2) Calcium acetate is distilled in the presence of calcium formate
 - (3) acetaldehyde is oxidised with potassium dichromate and sulphuric acid
 - (4) glycerol is heated with sulphuric acid

- यदि क्लोरोफार्म धूप की उपस्थिति में वायु में खुला छोड़ दिया जाय, तब :
 - (1) विस्फोटन होगा
 - (2) विषैली फॉसजीन गैस विरचित होगी।
 - (3) बहुलीकरण होगा।
 - (4) कोई अभिक्रिया नहीं होगी।
- 2. कौन Ag_2CrO_4 के विलेयता गुणनफल स्थिरांक का सही निर्देशन करता है ?
 - $(1) [Ag^{+}]^{2} [CrO_{4}]$
 - $(2) [Ag^{+}] [CrO_{4}^{-}]$
 - $(3) [2Ag^{+}] [CrO_{4}^{-}]$
 - $(4) [2Ag^{+}]^{2} [CrO_{4}^{-}]$
- हमारे आमाशय के जठर रस में इतना हाइड्रोक्लोरिक अम्ल होता है कि उससे हाइड्रोजन आयन सांद्रण 0.01 मोल / लीटर हो जायेगा। जठर रस का pH है:
 - (1) 0.01
 - (2) 1
 - (3) 2
 - (4) 10
- 4. निम्न अभिक्रियाओं में से किसमें संयोजकता परिवर्तन नहीं होता है ?
 - $(1) 4KClO_3 = 3KClO_4 + KCl$
 - (2) $SO_2 + 2H_2S = 2H_2O + 3S$
 - (3) $BaO_2 + H_2SO_4 = BaSO_4 + H_2O_2$
 - (4) $2BaO + O_2 = 2BaO_2$
- 5. एक धात्विक कार्बाइड जल से अभिक्रिया द्वारा एक रंगहीन गैस देता है। यह गैस वायु से सुगमता से जलती है तथा अमोनियम सिल्वर नाइट्रेट विलयन के साथ अवक्षेप देती है। उत्पन्न गैस है:
 - (1) मीथेन
 - (2) ईथेन
 - (3) एथिलीन
 - (4) ऐसीटिलीन
- 6. एक परमाणु के प्रथम आयनन विभव की तुलना में दूसरा है :
 - (1) वही
 - (2) अधिक
 - (3) कम
 - (4) उपेक्षणीय
- लीथियम की अपेक्षा सोडियम जल के साथ अधिक तीव्रता से अभिक्रिया करता है क्योंकि
 - (1) उसका परमाण् भार अधिक है।
 - (2) वह अधिक विद्युत ऋणात्मक है।
 - (3) वह अधिक धनात्मक है।
 - (4) वह धात् है।
- ऐसिटिक अम्ल प्राप्त होता है जबिक
 - (1) मेथिल एल्कोहॉल का पोटेशियम परमेंगनेट द्वारा उपचयन कराया जाता है।
 - (2) केल्सियम एसीटेट का केल्सियम फार्मेट की उपस्थिति में आसवन किया जाता है।
 - (3) एसीटल्डिहाइट का पोटेशियम डाइक्रोमेट व सल्पयुरिक अम्ल द्वारा उपचयन होता है।
 - (4) ग्लीसरॉल को सल्पयूरिक अम्ल के साथ गर्म किया जाता है।

- 9. Which are the products of the reaction CH₃CH₂Br+HC≡CNa→?
 - (1) CH₃CH₂C≡CH+NaBr
 - (2) CH₂=CH₂+HC≡CH+NaBr
 - (3) CH₃CH₂CH+CH₂+NaBr
 - (4) CH₃CH₂CH=CHCH₂CH₃+NaBr
- 10. What is the correct IUPAC name for



- (1) δ -Methyl- α , β -hexenoic acid
- (2) 5-Carboxy-2-methyl pentene
- (3) 4-Isopropyl-3-butenoic acid
- (4) 5-Methyl-3-hexenoic acid

The key to the sample questions is as under: 2,1,3,3,4,2,3,3,1,4

- 9. निम्न अभिक्रिया द्वारा कौन से पदार्थ बनेंगे : CH₃CH₂Br+HC≡CNa→?
 - (1) CH₃CH₂C≡CH+NaBr
 - (2) CH₂=CH₂+HC≡CH+NaBr
 - (3) CH₃CH₂CH+CH₂+NaBr
 - (4) CH₃CH₂CH=CHCH₂CH₃+NaBr
- 10. सही IUPAC पद्धति के अनुसार

$$\begin{array}{c} H \\ | \\ CH_3 - C - CH = CH = CH_2 = C \\ | \\ CH_3 \end{array} \quad OH$$

का नाम है :

- (1) δ-Methyl-α,β-hexenoic acid
- (2) 5-Carboxy-2-methyl pentene
- (3) 4-Isopropyl-3-butenoic acid
- (4) 5-Methyl-3-hexenoic acid

MATHEMATICS गणित

- 1. If f: $R \rightarrow R$ be defined by f(x) = 3x 4, $f^{1}(x)$ is
 - (1) 1/(3x-4)
 - (2) $\frac{x}{3} \frac{1}{4}$
 - (3) $\frac{x+4}{3}$
 - $(4) \frac{3}{x} 4$
- 2. The derivative of sec x is
 - (1) $\log(\sec x + \tan x)$
 - (2) $\sec x + \tan x$
 - (3) scc x tan x
 - (4) log sec x tan x
- 3. The primitive of tan x is
 - (1) log sec x
 - $(2) \log \cos x$
 - $(3) \sec^2 x$
 - (4) cot x
- 4. For what value of m the roots of $12x^2+mx+5=0$ are in the ratio 3:2?
 - (1) 12/5
 - (2) 5/12
 - (3) $5/12 \sqrt{10}$
 - (4) $5\sqrt{10}$

- 1. यदि f: R→ R, f(x) = 3x-4 से परिभाषित है,तो $f^{-1}(x)$ होगा
 - (1) 1/(3x-4)
 - (2) $\frac{x}{3} \frac{1}{4}$
 - (3) $\frac{x+4}{3}$
 - $(4) \frac{3}{r}$
- 2. sec x का अवकलन है :
 - (1) $\log(\sec x + \tan x)$
 - (2) $\sec x + \tan x$
 - (3) sec x tan x
 - (4) log sec x tan x
- 3. tan x का समाकलन है :
 - $(1) \log \sec x$
 - (2) log cos x
 - $(3) \sec^2 x$
 - (4) cot x
- 4. यदि $12x^2 + mx + 5 = 0$ के मूल 3:2 के अनुपात में हों तो m का क्या मान होगा ?
 - (1) 12/5
 - (2) 5/12
 - (3) $5/12 \sqrt{10}$
 - (4) $5\sqrt{10}$

5. Which one of the following is the value of the determinant

$$\begin{vmatrix} 1 & x & y+z \\ 1 & y & z+x \\ 1 & z & x+y \end{vmatrix}$$
?

- (1) x + y + z
- (2) Zero
- (3)(1 + x + y + z)
- (4)(1-x)(1-y)(1-z)
- 6 If $A = \begin{pmatrix} 2 & 0 \\ 0 & 6 \end{pmatrix}$ and $B = \begin{pmatrix} 3 & 0 \\ 0 & 2 \end{pmatrix}$

then which one the following is correct?

- (1) AB = BA
- (2) $AB \neq BA$
- (3) AB = -BA
- $(4) AB = A^2$
- 7. If $\cos \alpha + \cos \beta + \cos \gamma = 0$ and $\sin \alpha + \sin \beta + \sin \gamma = 0$, then $\cos 3\alpha + \cos 3\beta + \cos 3\gamma$ is equal to:
 - (1) $\cos^3(\alpha+\beta+\gamma)$
 - (2) $3\cos(\alpha+\beta+\gamma)$
 - (3) $\cos (\alpha + \beta + \gamma)$
 - (4) $\cos (3\alpha + 3\beta + 3\gamma)$
- 8. A bag contains 3 red, 6 white and 7 blue balls. The probability that two balls drawn from the bag are white and blue.is:
 - (1) 7/120
 - (2) 7/20
 - (3) 13/120
 - (4) 1/120
- 9. If $\overrightarrow{A} = 2i + 2j k$ and $\overrightarrow{B} = 6i 3j + 2k$ then $\overrightarrow{A} \cdot \overrightarrow{B}$ will be:
 - (1) 2
 - (2)5
 - (3) 4
 - (4)6
- 10 If the straight line y = mx + c is a tangent to the circle $x^2 + y^2 = a^2$, then c is equal to:
 - (1) a/m
 - (2) a $\sqrt{1-m^2}$
 - (3) a $\sqrt{1+m^2}$
 - (4) am

5. निम्नलिखित में से सारणिक

$$\begin{vmatrix} 1 & x & y+z \\ 1 & y & z+x \\ 1 & z & x+y \end{vmatrix}$$

का कौन सा मान है ?

- (1) x + y + z
- (2) शून्य
- (3)(1 + x + y + z)
- (4)(1-x)(1-y)(1-z)
- 6 यदि $A = \begin{pmatrix} 2 & 0 \\ 0 & 6 \end{pmatrix}$ तथा $B = \begin{pmatrix} 3 & 0 \\ 0 & 2 \end{pmatrix}$ हों तो

निम्नलिखित में से कौनसा सही है ?

- (1) AB = BA
- (2) $AB \neq BA$
- (3) AB = -BA
- $(4) AB = A^2$
- 7. यदि $\cos \alpha + \cos \beta + \cos \gamma = 0$ तथा $\sin \alpha + \sin \beta + \sin \gamma$ =0, हो तो $\cos 3\alpha + \cos 3\beta + \cos 3\gamma$ का मान होगा:
 - (1) $\cos^3(\alpha+\beta+\gamma)$
 - (2) $3\cos(\alpha+\beta+\gamma)$
 - (3) $\cos (\alpha + \beta + \gamma)$
 - (4) $\cos (3\alpha + 3\beta + 3\gamma)$
- 8. एक थैले में से 3 लाल, 6 सफेद तथा 7 नीली गेंदें है। थैले में से 2 गेंदे निकाली गई है। उनके सफेद और नीली होने की प्रायिकता है:
 - (1) 7/120
 - (2) 7/20
 - (3) 13/120
 - (4) 1/120
- 9. यदि $\overrightarrow{A} = 2\mathbf{i} + 2\mathbf{j} \mathbf{k}$ तथा $\overrightarrow{B} = 6\mathbf{i} 3\mathbf{j} + 2\mathbf{k}$ है तो $\overrightarrow{A} \cdot \overrightarrow{B}$ मान होगा :
 - (1)2
 - (2)5
 - (3)4
 - (4) 6
- 10 यदि सरल रेखा y = mx + c वृत्त $x^2 + y^2 = a^2$ की स्पर्श रेखा हो तो c का मान होगा :
 - (1) a/m
 - (2) a $\sqrt{1-m^2}$
 - (3) a $\sqrt{1+m^2}$
 - (4) am

The key to the sample questions is as under:

TENTATIVE LIST OF BRANCH - WISE SEATS AS PER SESSION 2009-10 GOVERNMENT AIDED ENGINEERING COLLEGES :-

Name of College	Branch	Intake 2009-10	Total
College of Technology & Engineering,	Computer (SFS)	40	327
UDAIPUR.	Electrical (SFS)	40	
	Mechanical (SFS)	40	
	Mining (10 GAS +10 SFS)	20	
	Agriculture (GAS)	47	
	Electronics & Communication (SFS)	40	
	Civil (SFS) Information Technology (SFS)	40	
	Food Technology (GAS)	60	4.6
College of Dairy & Food Sc. Technology, UDAIPUR.		25	46
	Dairy Technology (GAS) Computer.(SFS)	120	360
College of Engineering & Technology, BIKANER.	Electronics & Communication (SFS)	60	300
DIKANEK.	Civil.(SFS)	60	
	Ceramic Technology (SFS)	60	
	Mechanical (SFS)	60	
Engineering College,	Information Technology (SFS)	60	420
Barliya Choraha, National Highway No. 8	Computer (SFS)	90	420
AJMER	Electronics & Communication	90	
AJNIER	(40 GAS +50 SFS)	90	1
	Mechanical (40 GAS +35 SFS)	75	
	Electronic Instrumentation & Control	60	
	(40 GAS +20 SFS)	00	
	Electrical (SFS)	45	
Engineering College,	Information Technology (SFS)	60	420
BIKANER	Computer (SFS)	90	420
BIKANEK	Electronics & Communication (SFS)	90	
	Electrical (SFS)	60	
	Electronic Instrumentation & Control (SFS)	60	
	Mechanical (SFS)	60	
Engineering College,	Computer (SFS)	60	240
BHARATPUR.	Electronics & Communication (SFS)	60	240
DHARATI UK.	Civil (SFS)	60	
	Information Technology (SFS)	60	
Government Engineering College	Computer (SFS)	60	360
Near ITI Campus, RIICO Industrial Area,	Electronics & Communication (SFS)	60	300
JHALAWAR.	Information Technology (SFS)	60	
	Civil (SFS)	60	
	Electrical (SFS)	60	
	Mechanical (SFS)	60	
Government Women Engineering College	Computer (SFS)	120	360
Nasirabad Road, Makhupura,	Electronics & Communication (SFS)	120	
AJMAR	Information Technology (SFS)	60	
	Electrical & Electronics (SFS)	60	
MLV Textile and Engineering College,	Electronics & Communication (SFS)	60	350
BHILWARA	Information Technology (SFS)	60	
	Textile Engineering (SFS)	40	
	Textile Chemistry (20 GAS + 20 SFS)	40	
	Textile Technology (60 GAS + 30 SFS)	90	
	Mechanical (SFS)	60	1
MBM Engineering College,	Information Technology (SFS)	30	400
JODHPUR	Chemical (GAS)	30	
	Civil (GAS)	88	
	Computer (GAS)	33	
	Electronics & Communication (GAS)	45	1
	Electrical (GAS)	44	1
	Mechanical (GAS)	60	1
	Mining (GAS)	40	
	Production & Industrial (GAS)	30	1
University College of Engineering,	Information Technology (SFS)	30	360
Rawatbhata Road, Akelgarh,	Computer (SFS)	30	
KOTA	Electronics & Communication (SFS)	60	1
	Electrical (SFS)	60	1
	Mechanical (SFS)	60	

Electronic Instrumentation & Control (GAS)	30	
Production & Industrial (GAS)	30	

^{*} GAS - Government Aided Seats,

PRIVATE ENGINEERING COLLEGES:-

Name of College	Branch	Intake 2009-10	Total
Ajmer Institute of Technology,	Computer	120	420
Pushkar By Pass,	Electrical & Electronics	30	
AJMER	Electronics & Communication	120	
	Information Technology	60	
	Mechanical	60	
	Civil	30	
Alwar Institute of Engineering & Technology,	Electronics & Communication	90	420
North Extension, M.I.A.,	Mechanical	60	
ALWAR	Computer	120	
	Bio-Medical	30	
	Information Technology	120	
Apex Institute of Engineering & Technology,	Electrical	60	450
SI-5, RIICO Industrial Area, Sitapura, Tonk Road,	Electronics & Communication	120	130
JAIPUR.	Mechanical	60	
All UK.	Computer	90	
	Information Technology	120	
A			200
Aravali Institute of Technical Study,	Computer	120	300
Jmarda, Gram Panchayat, Kanpur,	Mechanical Electronics & Communication	60	
Distt, UDAIPUR		60	
C. W. A.D. O.Y.O	Information Technology	60	400
Arya College of Engg. & Information Technology,	Information Technology	60	420
SP.42, RIICO Industrial Area, Kukus,	Computer	120	
JAIPUR.	Electronics & Communication	120	
	Electrical	60	
	Automobile	60	
Arya College of Engineering and Research Center,	Computer	120	360
P.41, RIICO Industrial Area, Kukus, AIPUR.	Civil	120	
	Electronics & Communication	60	
	Information Technology	60	
Arya Institute of Engineering & Technology,	Electronics & Communication	120	420
SP.40, RIICO Industrial Area, Kukas,	Computer	120	420
JAIPUR.	Information Technology	120	
JAII UK.	Electrical	60	
Asians Institute of Technology,	Computer	60	240
Village-Bhurtia, Tehsil- Niwai	Electronics & Communication	60	240
ronk			
IUNK	Information Technology	60	
	Mechanical	60	
B.K.Birla Institute of Engineering & Technology.	Computer	60	240
CEERI Road,	Electronics & Communication	60	
PILANI	Information Technology	60	
	Electrical	60	
Baldev Ram Mirdha Institute of Technology,	Computer	120	420
ITS-3, IT Park, EPIP, Sitapura,	Information Technology	120	
JAIPUR	Electronics & Communication	120	
	Electrical	60	
Baldev Ram Mirdha Inst. of Tech. (East Campus)	Computer	60	270
TS-4, IT Park, EPIP, Sitapura,	Civil	90	
JAIPUR	Information Technology	60	
	Electronics & Communication	60	
Bansal School of Engineering & Technology,	Computer	90	270
Near Rohini III, JDA Scheme, Revenue Village	Electronics & Communication	60	
Mobbhat Pura, Phagi	Information Technology	60	
Distt. JAIPUR	Electrical	60	
			200
Bhartiya Institute of Engineering & Technology,	Computer	90	300
Near Sanwali Circle, Jaipur – Bikaner By-Pass,	Electrical	60	
P.O. Bajaj Gram Sanwali	Electronics & Communication	90	
SIKAR,	Information Technology	60	1

SFS - Self Finance Seats

Chachan Edu. & Welfare Society's Group of Inst.	Automobile	60	240
Alwar- Tijara- Delhi Highway, Chikaani	Civil	60	240
ALWAR	Electrical & Electronics	60	
	Mechanical	60	
Chandravati Education Charitable Trust Group	Civil	60	240
of Institutions,	Computer	60	
NH-11, Opp. Ghana National Park	Electronics & Communication	60	
BHARATPUR	Mechanical	60	
Chartered Institute of Technology,	Computer	60	240
Abu Road, SIROHI	Electronics & Communication Information Technology	60 60	
SIKOHI	Mechanical	60	
Compucom Institute of Tech. & Management,	Electronics & Communication	60	360
Sitapura	Computer	120	300
JAIPUR.	Information Technology	120	
	Applied Electronics & Instrumentation	60	
Dungarpur College of Engg. & Technology,	Computer	60	240
Simalwada Road	Electrical	60	
Dungarpur	Electronics & Communication	60	
	Information Technology	60	
Geetanjali Instt. of Technical Studies,	Computer	120	420
Dabok Road, UDAIPUR.	Mechanical Electronics & Communication	60	
UDAIPUK.	Electronics & Communication Electrical	120 60	
	Information Technology	60	
Global Institute of Technology,	Computer	60	420
ITS.1, IT Park, EPIP, Sitapura,	Electronic Instrumentation & Control	60	420
JAIPUR.	Information Technology	60	
V	Electronics & Communication	120	
	Electrical	60	
	Mechanical	60	
Gurukul Institute of Engineering & Technology,	Computer	60	240
IPB-13, RIICO Institutional Area, Ranpur,	Electronics & Communication	60	
KOTA	Information Technology	60	
Cyan Vibor Sahaal of Engineering & Tashnalagy	Mechanical Computer	120	420
Gyan Vihar School of Engineering & Technology, Mahal, Jagatpura	Electrical	60	420
JAIPUR	Electronics & Communication	120	
V	Information Technology	60	
	Mechanical	60	
Institute of Engineering & Technology,	Computer	120	570
North Extension, M.I.A.,	Electrical	90	
ALWAR.	Information Technology	120	
	Electronics & Communication Electronic Instrumentation & Control	120	
	Mechanical	60 60	
Institute of Technology & Management,	Computer	120	360
NH-79, Bhilwara By- pass, Post- Atun	Electrical	60	200
		120	1
, , , , , , , , , , , , , , , , , , , ,	Electronics & Communication	120	
BHILWARA	Information Technology	60	
BHILWARA International Institute of Management,	Information Technology Computer	60	240
BHILWARA International Institute of Management, Engineering & Technology,	Information Technology Computer Mechanical	60 60 60	240
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura,	Information Technology Computer Mechanical Electronics & Communication	60 60 60 60	240
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura, JAIPUR.	Information Technology Computer Mechanical Electronics & Communication Information Technology	60 60 60 60 60	
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura, JAIPUR. Jagan Nath Gupta Institute of Engg. & Technology	Information Technology Computer Mechanical Electronics & Communication Information Technology Computer	60 60 60 60 60 120	240
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura, JAIPUR. Jagan Nath Gupta Institute of Engg. & Technology IP-2 & 3, Sitapura Industrial Area,	Information Technology Computer Mechanical Electronics & Communication Information Technology Computer Information Technology	60 60 60 60 60 120 60	
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura, JAIPUR. Jagan Nath Gupta Institute of Engg. & Technology IP-2 & 3, Sitapura Industrial Area,	Information Technology Computer Mechanical Electronics & Communication Information Technology Computer	60 60 60 60 60 120	
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura, JAIPUR. Jagan Nath Gupta Institute of Engg. & Technology IP-2 & 3, Sitapura Industrial Area,	Information Technology Computer Mechanical Electronics & Communication Information Technology Computer Information Technology Electronics & Communication	60 60 60 60 60 120 60 120	
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura, JAIPUR. Jagan Nath Gupta Institute of Engg. & Technology IP-2 & 3, Sitapura Industrial Area, JAIPUR.	Information Technology Computer Mechanical Electronics & Communication Information Technology Computer Information Technology Electronics & Communication Electronic Instrumentation & Control	60 60 60 60 60 120 60 120 60	
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura, JAIPUR. Jagan Nath Gupta Institute of Engg. & Technology IP-2 & 3, Sitapura Industrial Area, JAIPUR. Jaipur Engineering College & Research Centre, Opp. EPIP Gate, Tonk Road, Sitapura,	Information Technology Computer Mechanical Electronics & Communication Information Technology Computer Information Technology Electronics & Communication Electronic Instrumentation & Control Mechanical Civil Computer	60 60 60 60 60 120 60 120 60 60 60	420
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura, JAIPUR. Jagan Nath Gupta Institute of Engg. & Technology IP-2 & 3, Sitapura Industrial Area, JAIPUR. Jaipur Engineering College & Research Centre, Opp. EPIP Gate, Tonk Road, Sitapura,	Information Technology Computer Mechanical Electronics & Communication Information Technology Computer Information Technology Electronics & Communication Electronic Instrumentation & Control Mechanical Civil Computer Electrical	60 60 60 60 60 120 60 120 60 60 120 60	420
BHILWARA International Institute of Management, Engineering & Technology, ISI-11, Sitapura, JAIPUR. Jagan Nath Gupta Institute of Engg. & Technology IP-2 & 3, Sitapura Industrial Area, JAIPUR. Jaipur Engineering College & Research Centre, Opp. EPIP Gate, Tonk Road, Sitapura, JAIPUR.	Information Technology Computer Mechanical Electronics & Communication Information Technology Computer Information Technology Electronics & Communication Electronic Instrumentation & Control Mechanical Civil Computer	60 60 60 60 60 120 60 120 60 60 60	420

Jaipur Engineering College,	Computer	120	420
SP-43, RIICO Ind. Area, Kukas,	Electrical	60	
JAIPUR.	Information Technology	60	
	Electronics & Communication	120	
	Mechanical	60	
Jaipur Institute of Engineering & Technology,	Computer	60	240
SP-43, RIICO Ind. Area, Kukas,	Electronics & Communication	60	
JAIPUR	Information Technology	60	
	Mechanical	60	
JIET School of Engg. & Technology for Girls,	Computer	120	360
New Pali Road, Mogra Kalla,	Electronics & Communication	120	
JODHPUR	Information Technology	120	
Jodhpur Institute of Engineering & Technology,	Computer	120	420
New Pali Road, Mogra Kalla,	Electrical	60	.20
JODHPUR	Electronics & Communication	120	
	Mechanical	60	
	Information Technology	60	
Kautilya Institute of Technology & Engineering,	Computer	60	405
ISI-16, RIICO Institutional Area, Sitapura,	Electrical	45	
JAIPUR	Civil	90	
	Electronics & Communication	90	
	Mechanical	60	
	Information Technology	60	
Laxmi Devi Institute of Engg. & Technology,	Computer	120	420
Alwar -Tijara Delhi Highway, Chikaani,	Electrical	60	
ALWAR	Information Technology	60	
	Electronics & Communication	120	
	Mechanical	60	
Lord's Institute of Engg. & Tech. for Women,	Computer	90	300
Alwar -Tijara Delhi Highway, Chikaani,	Electrical & Electronics	60	
ALWAR.	Electronics & Communication	60	
M. I. C. W. AT. I. I.	Information Technology	90	200
Maharaja College of Engineering,	Computer	90	300
Maharaja Educational Campus, Airport Road, Debari,	Mechanical	90	
UDAIPUR	Electronics & Communication Information Technology	60 60	
Maharishi Amind College of Enga & Desearch	Computer	60	240
Maharishi Arvind College of Engg. & Research Center,	Electrical	60	240
Sirsi Road,	Electronics & Communication	60	
JAIPUR	Mechanical	60	
Maharishi Arvind Institute of Engg. & Technology	Computer	120	420
Ambabari,	Mechanical	120	420
JAIPUR.	Information Technology	60	
	Electronics & Communication	120	
Maharishi Arvind International Institute of	Civil	60	330
Manarishi Arvind International Institute of Engineering & Technology,	Computer	90	330
IPA-1, RIICO Institutional Area, Ranpur	Electronics & Communication	60	
KOTA	Information Technology	60	
-	Electrical & Electronics	60	
Manda Institute of Technology,	Computer	60	240
NH-11, Jaipur Road, Raisar,	Electrical	60	
BIKANER	Electronics & Communication	60	
	Mechanical	60	
Marudhar Engineering College,	Computer	120	420
Raisar, NH-11 Jaipur Road,	Electrical	60	
BIKANER	Electronics & Communication	120	
	Mechanical	60	
	Information Technology	60	
Marwar Engg. College & Research Centre,	Civil	60	420
Village- Kharda Khurd, Panchayat Narnadi, Distt.,	Computer	60	
JODHPUR	Electrical	90	
	Electronics & Communication	120	
	Mechanical	90	\perp
Mayurakshi Institute of Engg. & Technology,	Computer	60	240
Daijar Road	Electronics & Communication	60	
JODHPUR	Information Technology Mechanical	60	
	I Machanical	60	

76 1		1	222
Modern Institute of Tech. & Research Centre,	Computer	120	330
Vill Jharkhera, 6th milestone, Tijara road, ALWAR	Electronics & Communication Information Technology	90 60	
ALWAR	Mechanical	60	
Modi Institute of Technology,	Computer	120	390
Rawatbhata Road, Nayagaon,	Information Technology	60	370
KOTA	Electronics & Communication	120	
	Applied Electronics & Instrumentation	30	
	Electrical	60	
Pacific College of Engineering,	Computer	60	240
P.B. 12, Pratp Nagar Ext. Air Port Road, Debari,	Electronics & Communication	60	
UDAIPUR	Electrical & Electronics	60	
	Mechanical	60	
Pacific Institute of Engineering,	Civil	60	240
PO-12, Pratap Nagar Ext. Airport Road, Debari	Computer	60	
UDAIPUR	Electrical	60	
	Mechanical	60	
Pacific Institute of Technology	Computer	120	300
P.B. 12, Pratp Nagar Ext. Air Port Road, Debari,	Civil	60	
UDAIPUR.	Electronics & Communication	60	
	Information Technology	60	
Poornima College of Engineering,	Computer	120	420
ISI-6, RIICO Institutional Complex, Sitapura,	Electrical	30	
JAIPUR.	Information Technology	60	
	Electronic Instrumentation & Control	30	
	Electronics & Communication	120	
December 1 and the Art of Earth 1 and 1 an	Mechanical Computer	120	360
Poornima Institute of Engineering & Technology, ISI-2, RIICO Institutional Area, Sitapura	Electronics & Communication	120	300
JAIPUR.	Information Technology	60	
JAII UK.	Electrical	60	
Dussidency College of Engineering	Computer	60	300
Presidency College of Engineering, IPB-21, RIICO Institutional Area, Jahalwar Road,	Mechanical	60	300
KOTA.	Information Technology	60	
KOTA.	Electronics & Communication	60	
	Electrical	60	
R.N.Modi Engineering College,	Computer	60	240
SP-2, RIICO Industrial Area, Ranpur,	Civil	60	
KOTA	Electronics & Communication	60	
	Information Technology	60	
Rajdhani Institute of Technology & Management	Computer	90	300
Near Rohini Nagar-1,Renwal Phagi Road	Electrical	60	
JAIPUR	Electronics & Communication	90	
	Information Technology	60	100
Rajasthan College of Engineering for Women,	Computer	120	420
Bhankarota, Ajmer Road,	Electrical Information Technology	60	
JAIPUR	Information Technology Electronics & Communication	120 120	
Rajasthan Institute of Engg. & Technology,	Civil	60	240
Village- Aachoda	Computer Electronics & Communication	60	
CHITTORGARH	Mechanical	60 60	
Daiasthan Institute of Engineering 0 Table 1			420
Rajasthan Institute of Engineering & Technology, Bhankarota, Ajmer Road,	Computer Electrical & Electronics	120 90	420
JAIPUR	Information Technology	60	
VIII OR	Electronics & Communication	90	
	Mechanical	60	
Regional College for Education Research &	Computer	120	420
Technology,	Electrical	60	
ISI-17, RIICO Institutional Area, Sitapura,	Electronics & Communication	120	
JAIPUR	Mechanical	60	
	Information Technology	60	
			270
S.S. College of Engineering	Computer	60	270
Post- Umarda, Panchyat- Kanpur,	Mechanical Electronics & Communication	60	
UDAIPUR	Information Technology	90 60	

Shankara Institute of Technology,	Computer	90	420
SP-44,RIICO Ind. Area , Kukas,	Mechanical	60	420
JAIPUR.	Information Technology	60	
JAH UK.	Electronics & Communication	120	
	Automobile	30	
	Electrical	60	
	<u> </u>		240
Shanti Education Society's Group of Institutions,	Civil	60	240
BT-1, Bio- Technology Park, RIICO, Sitapura	Computer	60	
JAIPUR	Electronics & Communication	60	
	Mechanical	60	
Shekhawati Engineering College,	Computer	120	360
Sikar- Jhunjhunu Road, Dundlod	Electrical	90	
JHUNUJHUNU	Electronics & Communication	90	
	Information Technology	60	
Shekhawati Girls Engineering College,	Computer	90	300
Near Dundlod Railway Phatak, Dundlod ,	Electrical	60	
JHUNJHUNU	Electronics & Communication	90	
VIII (VIII) (VIII)	Information Technology	60	
Sh-l-h		60	240
Shekhawati Inst. of Engg. & Technology,	Computer		240
Behind Circuit House, Jaipur Road,	Electronics & Communication	60	
SIKAR	Information Technology	60	
	Mechanical	60	
Shree Digambar Institute of Technology,	Computer	60	240
NH-11, Mitrapura,	Electrical	60	
DAUSA	Electronics & Communication	60	
	Information Technology	60	
Shri Bhawani Niketan Inst. of Tech. &	Computer	60	240
Management,	Electrical	60	
Sikar Road,	Electronics & Communication	60	
JAIPUR	Mechanical	60	
Shri U.S.B. College of Engg. & Management,	Civil	60	240
			240
Village- Siyava, Ambaji Road,	Computer Electronics & Communication	60	
Abu Road,		60	
SIROHI	Mechanical	60	
Shrinathji Institute of Technology & Engineering,	Computer	120	480
Upali Odan, Nathdwara,	Information Technology	90	
RAJSAMAND	Electronics & Communication	120	
	Electrical	90	
	Mechanical	60	
Siddhi Vinayak College of Science & Higher	Computer	90	390
Education.	Electronics & Communication	90	
E-1, M.I.A. (Extn.)	Information Technology	60	
ALWAR	Civil	90	
ALWAK	Mechanical	60	
C: J.J.L: V:	I .	_	240
Siddhi Vinayak Engineering & Management	Civil	60	240
College,	Computer	60	
E-1, B-1 M.I.A. (Extn.)	Electronics & Communication	60	
ALWAR	Mechanical	60	
SLBS Engineering College	Computer	60	300
Near Bypass Jodhpur-Jaipur Highway	Electronics & Communication	120	
JODHPUR	Information Technology	60	
	Electrical & Electronics	60	
Sobhasaria Engineering College,	Computer	120	420
Gokul Pura, N.H11,	Electrical	30	
SIKAR	Information Technology	60	
~	Electronics & Communication	120	
	Bio-Technology	30	
	Mechanical	60	
C.: D-1-!! C-11 FE!:		_	420
Sri Balaji College of Engineering & Technology,	Computer	60	420
Benad Road,	Electrical	60	
JAIPUR	Information Technology	60	
	Electronics & Communication	120	
	Civil	60	
	Mechanical	60	
	Computer	120	360
Sri Ganganagar Engineering College,	Computer		
Sri Ganganagar Engineering College, Tantia Higher Education Institutions Campus, Bus	Electronics & Communication	120	

St. Margret Engineering College,	Computer	90	390
Delhi-Jaipur Highway, Neemarana,	Information Technology	60	390
ALWAR.	Electronics & Communication	120	
THE WITH	Electronic Instrumentation & Control	60	
	Mechanical	60	
St. Wilfred's Institute of Engg. & Technology,	Computer	60	240
Gegal, Jaipur Road	Electronics & Communication	60	240
AJMER	Information Technology	60	
	Mechanical	60	
Stani Memorial College of Engg. & Technology	Computer	60	360
Phagi,	Electrical	60	
JAIPUR.	Information Technology	60	
	Electronics & Communication	120	
	Mechanical	60	
Swami Keshwanand Institute of Technology and	Computer	120	420
Management & Gramothan,	Electrical	60	
Ram Nagariya, Jagatpura,	Information Technology	90	
JAIPUR.	Electronics & Communication	90	
	Mechanical	60	
Tagore Engineering College,	Computer	60	240
Near DIET, Village- Panwari	Electrical	60	
Kuchaman City,	Electronics & Communication	60	
NAGAUR	Information Technology	60	
Techno India NJR Institute of Technology,	Computer	60	240
Plot. SPL-T.Bhamashan Kaladwas,	Electrical & Electronics	60	
UDAIPUR	Electronics & Communication	60	
	Information Technology	60	
Uttam Devi Mohan Lal College of Engineering,	Computer	120	360
Achrol 10 km milestone, Kukas,	Information Technology	60	
JAIPUR	Electronics & Communication	120	
	Mechanical	60	
Vedant College of Engineering & Technology,	Civil	60	300
Village - Tulsi, Post- Jakhmund	Computer	60	
BUNDI	Electronics & Communication	60	
	Information Technology	60	
	Electrical & Electronics	60	
Vivekanand College of Engineering,	Computer	60	300
Sisyawas, NRI Road, Jagatpura, Th. Sanganer,	Civil	60	
JAIPUR	Electronics & Communication	60	
	Information Technology	60	
XVI 1 XX division AVII 2	Mechanical	60	200
Vivekanand Intitute of Technology,	Computer	60	300
Sisyawas, NRI Road, Jagatpura, Th. Sanganer,	Electrical	60	
JAIPUR	Electronics & Communication	120	
V Eii C-ll f C' l	Information Technology	60	240
Vyas Engineering College for Girls,	Computer	90	240
Pali Road, Near Kudi Hd., Jhalamand,	Electronics & Communication	60	
JODHPUR	Information Technology	90	200
Vyas Institute of Engineering & Technology,	Computer	120	300
Pali Road, Near Kudi Haud, Jhalanmand,	Electronics & Communication	60	
JODHPUR	Information Technology	60	
V	Electrical & Electronics	60	420
Yagyavalkya Institute of Technology,	Computer	60	420
IP-1, Phase- IV, RIICO Industrial Area,	Electrical	60	
Sitapura,	Electronics & Communication	120	
JAIPUR	Mechanical	60	
	Civil	60	
	Information Technology	60 T (J (D)	20515
		Total (B)	: 28545

Grand Total: (A) 3643 + 28545 (B) = 32188

FORMATS OF VARIOUS CERTIFICATES

CERTIFICATE – 1

Certificate for Domicile of Rajasthan

(any one relevant certificate out of the following six must be given)

Domicile Category - A
CERTIFICATE – 1 (i)
(To be given if father/mother of the candidate is a bonafide resident of Rajasthan)
It is certified that Shri/ Smt
Shri/ Kumari is a bonafide resident of Rajasthan.
(Name of the candidate)
OR
(To be given if the candidate is a bonafide resident of Rajasthan)
It is certified that Shri/ Kumari
(Name of the candidate) Shri/Smt is a bonafide resident of Rajasthan.
is a contained resident of regularities.
Signature of the District Magistrate / Executive Magistrate
Date: Court Seal Addl. District Magistrate / S.D.M.
OR
If the above certificate, issued by competent authority, is already available then attach the attested photocopy of that certificate.
OR
Domicile Category - B RPET-2010
CERTIFICATE – 1 (ii) (To be given if the candidate has studied continuously for preceding 3 years up to and including
the year of passing qualifying examination (i.e. X, XI and XII) as a regular student in recognized educational institutions of Rajasthan)
I certify that Shri/ Kumari son/daughter of
(Name of the candidate)
Shri / Smt
has studied continuously in school(s) in Rajasthan as a regular student during sessions to
in classes to
Signature of the Head Master/Principal of School
Date: last attended with official seal
*If a candidate has studied in more than one school, then attach this certificate in the above format for each school.

OR

Domicile Category - C	RPET-2010

CERTIFICATE – 1 (iii)

(To be given if the candidate's father/mother is a serving / retired employee of Rajasthan Government / Government of Rajasthan Undertakings)

Government / Gover	nment of Rajasthan Undertakings)
Certified that Shri/ Smt.	Father / Mother of
Shri/Kumari	is a serving employee
(Name of the	candidate)
(write designation)	/ retired employee (write designation held at the time of
retirement) of	
(i) Government of Rajasthan including	ng officer of All India Service borne on the State Cadre of
Rajasthan (specify) or
(ii) The Undertaking/ Corporation / In	nprovement Trust/ Municipal Board /Panchayat Samiti/ Co-
operative body duly constituted by	y the Government of Rajasthan (Specify) or
(iii) Statutory body or Corporation for	med under the Indian Companies Act incorporated in
Rajasthan (Specify).
	Signature of the Employer/Head of Department
Date :	with Designation and official seal
	OR
Domicile Category - C	RPET-2010
	TIFICATE – 1 (iv)
	er is a serving employee of University, Board of Secondary ed Engineering College in Rajasthan)
Certified that Shri/ Smt.	Father / Mother of
Shri/Kumari	is a serving employee (write
(N	ame of the candidate)
designation) of	in Rajasthan or Board of
	(Name of University)
Secondary Education, Rajasthan or Govt. Aideo	d Engineering Collegeand has put
in at least three years service on the date of sub-	
•	
	Signature of the Employer/Head of the Department with
Date:	Designation and official seal

OR

D	omicil	e	Cate	σnr	v	\mathbf{C}
1			Cau	ZUL	_	v

RPET-2010

CERTIFICATE – 1 (v)

Undertaking employee serving in	the State of Rajasthan)
Certified that Shri/ Smt	
of Shri/Kumari(Name of the candidate)	is an employee of Central Government or
Institution of the Central Government including Public Sec	ctor Undertaking or Corporation and he/she is on
the regular rolls and he/she is serving at	(Write name of city)
in the State of Rajasthan on the date of application as	•
in the State of Trajustitum on the date of approach as	(Write designation)
Date :	Signature of the Employer/Head of Department with Designation and official seal
OR	
Domicile Category - C CERTIFICATE -	RPET-2010
(To be given if the candidate's father/mother is an Central Govt. / Public Undertaking/ Defence/ N States other than R	National Institutes of Govt. of India in
I certify that Shri/ Kumari.	is the
(Name of the can	didate)
natural son/ daughter of Shri/Smt.	
and his/her father/mother is serving and has put in at	•
submission of application form in Indian Defence Service	
Central Government including Public Sector Undertaking as	
	(Write designation & name of organisation)
and he/she is an employee of Rajasthan origin irrespective of	of his/her place of posting. The State of origin and
the home town as given by him/her at the time of his/her end	try into service is
	Signature of the Employer/Head of Department

with Designation and official seal

Note: Strike out the portion which is not applicable.

Date:

Category - I Certificate: SC/ST/ *Non creamy layer OBC

RPET-2010

CERTIFICATE – 2 CERTIFICATE REGARDING SCHEDULED CASTE/SCHEDULED TRIBE/ *NON CREAMY LAYER

	OTHER BACKWARD CLASSES istrict Magistrate/Executive Magistrate/Additional District Magistrate/Sub sildar of the District /Place of which the candidate is a resident.)
I,	certify that Shri/Kumari is
(Name of the District Magistrate/Executive M	agistrate /S.D.M. / Tehsildar)
and belongs to Scheduled Caste/Sch	ughter of Shrieduled Tribe/ Non Creamy Layer Other Backward Classes
(Name of the caste) by birth as notified under Presidentia District	ll Order for the State of Rajasthan in
(Village / Tehsil)	
Date: Court Seal	Signature of the District Magistrate / Executive Magistrate Addl. District Magistrate / S.D.M. /Tehsildar
	OR
If the above certificate, issued by compete	ent authority, is already available then attach the attested photocopy of that certificate.
should not be older than one year. (the following format along with the	idates, the above certificate should be issued by the competent authority and b) Non creamy layer OBC candidates will have to furnish an undertaking in above certificate.
I,resident of village / town / city	son / daughter of Shri
•	ong to the community which is recognised as a backward class by
	urpose of reservation for admission in the state of Rajasthan. <u>It is also</u>
	ersons / sections covered within the meaning of "Creamy Layer" as
defined in the notifications issued by	by the Department of Personnel, Government of Rajasthan.
I declare that status / income of my financial year ending on March 31, 2	parents / guardian is below the prescribed limits for creamy layer as on 010.
That in the event of declaration bei	ing found false misleading or incorrect during or after B.E. / B. Tech.
programme, I will not have any o	objection whatsoever against the action taken in the matter, which I
understand, shall not be less than t	termination of the program and if the degree of programme has been
awarded, the same shall be cancelled	forthwith.
Place:	Signature of the Candidate
Date:	Name of the candidate

Category - II Certificate : EXS1/EXS2

RPET-2010

CERTIFICATE – 3

CERTIFICATE FOR CHILDREN OF DEFENCE PERSONNEL KILLED OR SEVERELY DISABLED (TO BE SUBMITTED BY THE CHILDREN OF DEFENCE PERSONNEL * PARA-MILITARY FORCES** KILLED OR SEVERELY DISABLED*** IN ACTION DURING HOSTILITIES/WARS OR ON DUTY DURING PEACE TIME) (This certificate must be signed by the Commandant or OIC Records to which the Soldier/JCO belongs. In case of officers of Army, Navy & Air-Force, this certificate must be signed by the Service HQ of respective branch) (Service No., Rank of certifying officer) certify that (Service No., Rank and Name of defence personnel- disabled or deceased) Natural Father of (Name of applicant) EXS1 was killed in action or EXS2 Disabled in action and boarded out from service/Died while in service with death attributable to military service/Disabled in service and boarded out with disability (Tick which ever is applicable) attributable to military service (Mention severe disability and its percentage as per medical board) His particulars are: 1. Service No., Rank & Name of the person 2. Name of the Unit last served 4. Home town in Rajasthan as given by him at the time of his entry into service is and P.P.O. No. is Signature Date: Seal of Office Name Defence personnel will mean Commissioned Officers, Junior Commissioned Officers, other ranks, noncombatant (enrolled) and their equivalent ranks in Navy and Air-Force of Rajasthan origin only. Para Military forces consist of Border Security Force, Central Reserve Police, Assam Rifles and Indo-Tibetan Border Police. Applicable to personnel of Rajasthan origin only. As per GOI Ministry of Home Affairs, Department of Personnel and Administrative Reforms, Order No. 14024/6/77 Estt.(D), dated 31-12-1979, severely disabled means with over 50 percent disability and unfit for employment but disability attributable to military service. OR

If the above certificate, issued by competent authority, is already available then attach the attested photocopy of that certificate.

Category - II Certificate : EXS4

RPET-2010

	CERTIFICA	ATE – 4
	CERTIFICATE TO BE SUBMITTED BY	
I,	(Service No., Rank & Name o	
certify	that	of the Ex-Serviceman)
Natura	l father/mother of(Name of Applica	
ex-serv	viceman. His/Her particulars are:	
1. Serv	vice No., Rank and Name of the Person	
2. Nan	ne of the Unit last served	
3. Date	e of enrolment	Date of retirement
4. He/S	She is/was ex-serviceman of Rajasthan origin and h	nis/her home town as given by him/her at the time of
his/	her entry into service is	
	Her Registration/Identity Card No. is	dated
		Signature Name
Date	Seal of Office	(District Soldier Welfare Officer) Name of District
*(1) (2)		d Book on Resettlement of Ex-servicemen (1995). The State of origin and the home town as entered in oof in respect of above.

OR

If the above certificate, issued by competent authority, is already available then attach the attested photocopy of that certificate

Category - II Certificate: EXS3

RPET-2010

CERTIFICATE TO BE SUBMITTED BY CHILDREN OF GALLANTRY AWARD WINNERS

Please attach attested photo copy of Gallantry award certificate issued by competent authority along with the certificate having particulars about the serviceman.

Category - II Certificate : PH

RPET-2010

CERTIFICATE – 5

CERTIFICATE REGARDING PHYSICALLY HANDICAPPED CANDIDATE

(To be given by authorized Medical Orthopedic Surgeon of t Department of a Government Medical College	
This is to certify that Shri / Kumari	
Son/Daughter of Shri	is a
Physically Handicapped (Disabled) candidate in terms of t	he accepted norms. The percentage of handicap
is The nature of handicap/ disability is as	follows:
(Signature of the Candidate)	
Place:	Signature of Orthopaedic Surgeon / Medical Board (with Official Seal)
OR	(with Official Scar)
If the above certificate, issued by competent authority, is already availa	1 10 0
CERTIFICA	RPET-2010
CERTIFICATE FOR CANDIDATES OF EC	ONOMICALLY WEAKER SECTION
(To be used only for economically weaker section stude from all sources is less th	
This is to certify that Shri / Smt.	Father /Mother of
Ţ	her's Name)
Shri /Kumari	whose annual income from
(Name of Candidate)	whose difficult freezile from
,	
all sources is Rs.	
* He / She is working under me on the post of	
Place:	Signature
Date: (Compete	ent Authority as mentioned below)
Note: This certificate must be signed by	
 (a) *Head of Office / Competent Officer for those candidates Government Department / Central Government Depart Autonomous Institutions / University (b) Concerned Tehasildar of Tehsil for rest of the candidate 	ment/Board/Government Undertaking Department /

If Father and Mother both are working then total income should be clubbed.

RPET - 2010

Code and Name of Cities for Entrance Examination Centers

City	Code
Ajmer	01
Alwar	02
Banswara	03
Barmer	04
Bharatpur	05
Bhilwara	06
Bikaner	07
Churu	08
Hindaun City	09
Jaipur	10
Jhalawar	11

City	Code
Jhunjhunu	12
Jodhpur	13
Kota	14
Pilani	15
Sikar	16
Sirohi	17
Sri Ganganagar	18
Swai Madhopur	19
Tonk	20
Udaipur	21

Note: The Coordinator, RPET-2010 reserves the right to allocate a candidate any center other than that of his/her choice.

RPET-2010 OFFICE

Address :Phone No. : (0291) - 2632446Board of Technical Education, RajasthanFax No. : (0291) - 2430398

W-6, Residency Road, Web Sites: http://techedu.rajasthan.gov.in Jodhpur - 342 032 www.rpet.indiaresults.com

IMPORTANT INFORMATION AT A GLANCE

1.	Sale of RPET-2010 Information Booklet containing Application Form	18-03-2010 to 10-04-2010
2.	Last date for receipt of completely filled application form at RPET-2010 Office, Board of Technical Education, Rajasthan, Jodhpur.	10-04-2010 (up to 5.00 PM)
3.	Date of dispatch of Admit Card	05-05-2010 to 10-05-2010
4	Schedule of Examination	Date: 20 th May, 2010 Day: Thursday Time: 9.00 A.M. to 12.00 Noon
5.	Center of Examination	As indicated on the Admit Card
6.	Expected date of declaration of Results	20-06-2010
7	Materials to be brought on the day of examination	Admit Card, Card Board and Black Ball Point Pen of good quality.
8.	Rough work	All rough work is to be done in the Test Booklet only. The candidate should NOT do any rough work or put stray mark on the OMR Answer Sheet.

In case of any legal dispute, the jurisdiction will be limited to the Jodhpur Courts only (Lower, District and High court) and it will not be subject to any other court (Except Supreme Court) outside Jodhpur.