## ANDHDRA UNIVERSITY ENGINEERING ENTRANCE TEST (AUEET - 2012)



## ADMISSION INFORMATION BROCHURE-II

1. 5-YEAR INTEGRATED DUAL DEGREE PROGRAMMES:
B.E + M.E./B.Tech. +M.Tech. / B.E. + M.B.A./ B.Tech.+M.B.A.
2. TWINNING PROGRAMMES:
(i) B.Engg. Air Craft Engineering
(ii) B.E. Electro-Mechanical Engineering.

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## ADMISSION INFORMATION BROCHURE-2012

## FOR 5 - Year Integrated Dual Degree Programmes and Twinning Programmes

 (B.Engg. Aircraft Engineering / B.E. Electro - Mechanical Engineering)I. GENERAL:

1. Directorate of admissions, Andhra University, Visakhapatnam invites applications for admission into various courses offered at University College of Engineering (A), for the academic year 2012-2013.
2. Candidates are advised to carefully go through the Information Brochure - II available in Andhra University Website www.andhrauniversity.info/doa and select the appropriate course of study based on the eligibility criteria.
3. Courses offered, their eligibility criteria, details of seats available are given in Annexure - I.
4. The applicant should claim admission under the appropriate categories of reservation by marking in the relevant boxes in the application form. Requests for inclusion or change of category(ies) once claimed will not be entertained under any circumstances. The applications will be processed as per the claims of the candidates only and the admissions will be subject to the validity of their claims.
5. The reservation policy of the Government of A.P. that is in vogue in respect of SC, ST, LBC, CAP, PH, NCC and Sports categories will be followed in the process of admissions for 5-Year Integrated Dual Degree and for Twinning Programmes.
6. $5 \%$ supernumerary seats in each course offered at A.U. campus are available to candidates belonging to other states.
7. $15 \%$ supernumerary seats in each course offered at A.U. campus are avialable to foreign / NRI students. Such candidates need not appear for the entrance test. Their applications shall be considered under separate fee structure.
8. For candidates with entrance tests, mere appearance in the test does not automatically guarantee right of admission. A candidate seeking admission into a particular course has to fulfill the eligibility criteria specified for that course.
9. In case of SC/ST candidates $5 \%$ of relaxation in marks in the qualifing examination where ever applicable will be allowed.
10. Only limited hostel accommodation is available for candidates admitted into 5 -Year Integrated Dual Degree Courses / B.Engg. Air Craft Engineering / B.E. Electro Mechanical Engineering.
11. The university reserves the right to fill or not to fill the seats earmarked for a particular course on administrative reasons. All admissions are purely provisional and the University reserves the right to cancel the admission at any stage. Further it also reserves the right to run or not to run a particular course depending on the number of candidates joined in it. A minimum of 10 candidates should join in any course under Self - Finance or Payment streams to run it.
12. All disputes pertaining to the admissions shall fall with in the courts Jurisdiction of Visakhapatnam only whether regular or consumer courts.

## II. COURSES OFFERED :

1. 5-Year Integrated Dual Degree Programmes (with Entrance test Annexure -II for Syllabus)
(i) Admissions into 5 Year Integrated Dual Degree Programmes: (B.E.+M.E./B.Tech.+ M.Tech./B.E.+M.B.A./B.Tech.+M.B.A.) will be processed as per rank order obtained in the Entrance Test conducted by Directorate of Admissions, A.U.
(ii) The Candidates admitted into these programmes will be awarded B.E.+M.E./ B.Tech.+M.Tech./B.E.+M.B.A./B.Tech./M.B.A Degree after successful completion of 5-Year courses.
(iii) The Programmes will be run in semester pattern with internal assessment and continuous evaluation in practicals.
(iv) There will be no provision for the students to discontinue at the end of $3^{\text {rd }}$ or $4^{\text {th }}$ year to claim an alternative degree.

## 2. TWINNING PROGRAMMES :

(i) B.Engg. -Aircraft Engineering : A four year twinning programme with Perth College, UK (With Entrance Test - Annexure-II for Syllabus) :
(a) This Programme is introduced to facilitate direct entry to second year of the B.Engg.Aircraft Engineering course at Perth College, U.K. and to encourage collaborative activity with it.
(b) Admission into this course will be processed as per the rank order obtained in the entrance test conducted by Directorate of admissions, A.U.
(c) Under this programme, students will take instruction for first two semesters at A.U. and the remaining at Perth University, U.K.
(d) Each candidate must qualify in IELTS / TOEFL examination and submit the score before the end of first semester.
(e) Fee Per year is $4000,6350 \& 7000$ (UK Pounds for the First, Second and Third Years Respectively.
(ii) B.E. Electro Mechanical Engineering: A 4 -year twinning programme with GroupT University of Belgium. (With Entrance Test - Annexure - II. for Syllabus):
(a) This Twinning Programme is jointly offered by Andhra University and Group-T University of Belgium.
(b) Admission into this course will be given as per the rank order obtained in the entrance test conducted by the Directorate of admissions, A.U.
(c) The Candidate will study first and second years in the Department of Mechnaical Engineering, Andhra University and third and fourth years in the Group-T University of Belgium (Europe.)
(d) B.E. Degree will be awarded by both the Universities after successful completion of the 4-year course.
(e) Fee is tentatively fixed at Rs. 2.0 Lakhs per year.

## III HOW TO APPLY:

1. Applications can be had from the sale counter at the Office of The Principal, A.U. College of Engineering (A), Andhra University, Visakhapatnam by paying an amount of Rs. 500/- in cash.
2. Applications can also be had from the Office of the Director, Directorate of Admissions, A.U. by post by sending a crossed D.D. for Rs. 550/- drawn in favour of the Director, Directorate of Admissions, A.U. from any Nationalized bank payable at Visakhapatnam through registered post on or before 28-03-2012 the name of the applicant and application No. should be written on the reverse side of the D.D. The Fee once paid will not be refunded.
3. The duly filled-in application should be accompanied with attested copies of the following certificates:
(i) Date of birth extract from SSC/ICSE/CBSE/Matriculation certificate.
(ii) Supporting evidence for claims of reservation under SC, ST, LBC, EBC, PH, NCC, Sports, Children of Armed Personnel (CAP) category and minorities.

## IV. LAST DATE FOR RECEIPT OF FILLED-IN APPLICATIONS:

1. Application forms completed in all respects should reach the Director, Directorate of Admissions, Andhra University, Vijayanagar Palace, Pedawaltair, Visakhapatnam-530017 (only in the cover provided with the application clearly writing the test number, test name and test centre) by registered post or in person before 5 p.m on or, before 04.04.2012.
2. Office of Directorate of Admissions is not responsible for the non-receipt of applications sent by Post / Courier or late receipt of applications due to postal delay or for any reason what so ever.

## V. LATE APPLICATIONS:

Applications received after the last date $\mathbf{0 4 . 0 4 . 2 0 1 2}$ will be treated as late applications and shall be accepted only on payment of late fee of Rs. 1,000/- through D.D. in favour of The Director, Directorate of Admissions, Andhra University, Vijayanagar Palace, Pedawaltair, Visakhapatnam- 530017 upto till 5.00 p.m. on 18-04-2012.
INCOMPLETE APPLICATIONS ARE LIABLE TO BE SUMMARILY REJECTED.
VI. HALL TICKETS:

1. Hall-Tickets will be sent to candidates through post 10 days before the date of commencement of Entrance Test.
2. In case of the non receipt of the Halltickets, candidate can download the same from the University website : www.andhrauniversity.info/doa and attend the examination
3. In case of non - availability of hall-ticket in the website, candidates are advised to contact the Directorate of Admissions at Tel No. (0891) 2573441 or 2706928.
4. The hall-ticket should be retained by the Candidate carefully as it has to be produced at the time of admission.
VII. TEST CENTRES :
5. AUEET -2012 will be conducted at the following Test Centres :
6. VISAKHAPATNAM
7. KAKINADA
8. VIJAYAWADA
a) Candidates should mention the Centre code and name of his / her choice in both Computer Data Sheet and Application Form. Request for change of Test Centre and Subject opted by the candidate in the Application Form will not be considered under any circumstances.
b) When the number of registered candidates for any test are below $\mathbf{1 0 0}$, the test will be conducted at Visakhapatnam centre only.

## VIII. TEST PROCEDURE :

1. Candidates are advised to come to the examination hall at least half-an hour before the commencement of the Test.
2. Candidates will not be admitted into the examination hall without hall-ticket and / or after the commencement of the Test. They will not be allowed to leave the examination hall before the stipulated time.
3. Calculators, pagers, cellular phones, books, papers, logarithm tables, slide-rule or any other calculating aids are NOT ALLOWED into the examination hall.
4. Candidates should answer on the candidate's specific (with candidate name, HALL TICKET Number and Photo) OMR ANSWER SHEET only.
5. The Chief Superintendent of the test centre can take disciplinary action on candidates involved in indiscipline, malpractice, impersonation, etc., and the answer scripts of such candidates will not be valued.
IX. RANK:
6. All candidates appeared for the Entrance Test will be awarded AUEET-2012 test-wise Rank as per marks secured in the test appeared. EACH WRONG ANSWER ENTAILS A DEDUCTION OF $1 / 4$ MARK.
7. In case of a tie between candidates securing the same marks in a test, the order of merit will be decided on the basis of marks obtained in Part-A of the Test. In case of a further tie, the
marks obtained by the candidate in Part-B shall be taken into account. If the tie continues, the date of birth of the candidate shall be taken into account, with priority to older candidate.
8. Rank card will be Posted to the candidates. Incase of nonreceipt of the rank card in time, or lost it can be downloaded from the website : www.andhrauniversity.info/doa
9. There is no provision for revaluation or personal verification of the answer sheet.
X. ADMISSION INFORMATION:
10. Admission shall be based on the AUEET-2012 Rank, subject to the fulfillment of eligibility criteria as given in Annexure - I.
11. The university shall not be responsible for either non-receipt or delayed receipt of communications in this regard.
12. At the time of admission candidates should produce the following original certificates in support of the qualification and reservations claimed in the application for verification.
(i) AUEET-2012 Rank card \& Hall Ticket.
(ii) Intermediate original certificate.
(iii) Consolidated Marks statement of the Qualifying Examination.
(iv) Transfer and Conduct Certificate from the institution where the candidate last studied.
(v) Date of Birth Certificate (SSC/Matriculation or equivalent Certificate)
(vi) Migration Certificate, (for other Institutions)
(vii) Study Certificates for the last seven years or Residence Certificate for preceeding seven years of the qualifying examination.
(viii) Integrated Community Certificate issued by the competent authority in case of SC/ST/BC/ EBC/ Minority candidates.
(ix) Valid latest income certificate issued by M.R.O./ Thasildar if fee concession is claimed (the validity of income certificate is for one year from the date of issue).
(x) 4 recent passport size Photos.
(xi) Candidates opting for admission under NCC/Sports/CAP/PH quota shall produce relevant original certificate, in addition to the above.
(xii) Discharge certificate and service certificate of the parent incase of a child of armed person.
(xiii) Physical fitness certificate from an Asst. Civil Surgeon.
(xiv) One set of Photostat copies of all the above certificates.
13. Once the admission procedure is completed, including fee payment the admitted candidate will get all his/her Original certificates back except T.C., C.C. and Migration certificate.
14. The cases of pending revaluation will not be considered.
15. (a) The concerned university reserves the right to deny entry into AUEET-2012 if the University finds the antecedents of the candidate are bad. If the University finds the antecedents of the candidates are bad subsequent to the appearance of AUEET-2012, his/her rank can be cancelled and the candidate can be denied admission into any program under AUEET2012 or admission can be cancelled even if admission is given
(b) All the admissions are purely provisional and the university concerned reserves the right to cancel the admission at any stage.
16. Cancellation of seats : Cancellation of seats will be made with $90 \%$ refund of total fee prescribed before completion of second phase counseling and with no fee refund after second phase of Counseling.

## GENERAL REGULATIONS DURING STUDY OF THE COURSE :

1. As per the UGC guidelines all Candidates admitted into the various courses of study are required to put in a minimum of $75 \%$ of class room attendance. Candidates not securing a minimum of $75 \%$ attendance should repeat the course. The name of a student who continuously remains absent for a period of 10 days from the date of admission without valid reason and intimation to the concerned Head of the department shall be removed from the rolls.
2. Candidates admitted into full-time (day) courses should not undertake any assignment / employment or study any other course simultaneously (except evening diploma course where he/she has to get no objection certificate) and any violation leads to cancellation of admission.
3. Payment of residential scholarships in respect of eligible students of all categories is conditional on their putting a minimum attendance of $75 \%$ in the college in each quarter. If the candidate puts in less than $75 \%$ of attendance for valid reasons, he/she shall be paid scholarship in proportion to the attendance. Those who are absent themselves without valid reasons will not be paid any scholarship.
4. Examinations shall be conducted at the end of each Semester. No supplementary examination will be conducted.
5. RAGGING in any form by any student will make him/her liable for expulsion/punishment as perA.P. Ragging Act 26 of 1997 and subsequent Supreme Court verdict.
6. Only limited Hostel accommodation is available. Hostel admission is subject to the rules in force from time to time. Candidates under self-finance category will be considered for hostel accommodation subject to availability of seats only after accommodating students under regular category.

## 12. RESERVATION OF SEATS:

Admission into various courses of study shall be made on the basis of AUEET-2012 Rank and eligibility criteria subject to the rule of reservation as detailed below:

## A. LOCAL CANDIDATES:

In every course of study $85 \%$ of the available seats are reserved in favour of the Local Candidates from the districts of Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Krishna, Guntur and Prakasam belonging to Andhra University area and students from Kurnool Silver Jubilee College and Sri Padmavathi Mahila Viswavidyalayam (Tirupathi).

1. A candidate shall be regarded as a local candidate in relation to a local area (AU/OU/SVU);
1.1 If he/she has studied in an educational institution or educational institutions in such local area for a period of not less than four consecutive academic years ending with the academic year in which he/she appeared or first appeared in the relevant qualifying examination as the case may be; OR
1.2 Where, during the whole or any part of the four consecutive academic years in which he/ she appeared, or first appeared in the relevant qualifying examination, he/she has not studied in any educational institutions, if he/she resided in that local area for a period of not less than four years immediately preceeding the date of commencement of the relevant qualifying examination in which he/she appeared, or first appeared, as the case may be.
2. A candidate who is not regarded as local candidate under clause (1.1) above in relation to any local area shall be regarded as a local candidate of AU/OU/SVU.
2.1 If he/she has studied in the educational institutions in the state for a period of not less than seven consecutive academic years ending with the academic year in which he/she appeared or first appeared for the relevant qualifying examination as the case may be, be regarded as a local candidate in relation to (i) Such local area where he/she has studied for the maximum period out of the period of seven years; or (ii) Where the period of his/ her study in two or more local areas is equal, such local area where he/she studied last in such equal periods;

## OR

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

Candidates claiming reservation under local category should submit the relavent certificate by downloading the appropriate proforma from the website www.andhrauniversity.info/doa).
3. The remaining $15 \%$ of unreserved seats can be competed by the categories mentioned below:
a) All candidates defined as "Locals" of Andhra University area, and
b) The following categories of candidates who are defined as "Non-locals" for the present purpose: (i) All candidates, who are locals for Osmania and Sri Venkateswara University areas. (ii) Candidates who have resided in the State of Andhra Pradesh for a total period of ten years, excluding periods of study outside the State; or either of whose parents have resided in the State for a period of ten years excluding periods of employment outside the State. (iii)Candidates who are spouses/children of those in the employment of the State or Central Government, Public Sector Corporations, Local Bodies, Universities, Educational Institutions recognised by the Government and similar State or quasi Government Institutions within the State. A Certificate to that effect from the Head of the Institution or Department should be enclosed.

## B. OTHER CATEGORIES OF RESERVATION:

The allocation of percentage of seats as detailed below is as per G.O.M.S.No.184, Education (EC-2) Department, dt. 20-8-1993, and G.O.M.S.No.116 SW(CV-1) dt. 10-12-1999 as amended uptodate:
(a) Scheduled Castes (SC):15\%; Scheduled Tribes (ST): 6\%; Listed Backward Classes (BC: 29\%, A-7\%, B-10\%, C-1\%, D-7\% and E-4\%)
(b) NCC: 1\%; Sports: 0.5\%; Children of Armed Forces Personnel (CAP): $2 \%$ of seats be filled by horizontal method of reservation.
(c) PH: 3\% of seats be filled by following horizontal method of reservation. In the absence of suitable PH candidates in the respective categories, these seats will be filled-in with other candidates of the same category.
(d) $33.33 \%$ of the seats in each course shall be reserved in favour of women candidates in each category. This rule of reservation shall not be applicable if women candidates selected on merit in each category form $33.33 \%$ or more of the seats therein. In the absence of eligible women candidates in categories of SC, ST, BC Groups A, B, C, D, E, CAP, NCC, PH and Sports, those seats will be filled in with men candidates of the same category. (G.O.M.S.no.184, dt. 20-8-1993);
(e) The number of seats reserved under various categories shall be calculated on the total seats available in the respective units given below as per the existing rules of the respective universities: If there is any fraction in the calculation of seats under reservation for various categories, it should be rounded off to the nearest number without affecting the sanctioned strength. 5 year Integrated Dual Degree and Twinning Programmes offerred in AU College of Engineering ( A ) are taken as one unit each.
"A" Grade: The volunteer should fulfill the Tasks and Targets of two years service along with Special Camp participation and represented the Nation in the International Event in NSS activities OR recipient of Indira Gandhi National NSS Award OR participant in the Republic Day Parade Camp in New Delhi.
"B" Grade: The volunteer should fulfill the Tasks and Targets of Two years service along with Special Camp participation and participated in the National Integration Camp. Pre-R.D. Camp, Inter-Collegiate Camp, Youth Leadership Training Camp winners of the district, University Youth Festivals, recipients of District/University level NSS Best Service Awards.
"C" Grade: The volunteer should fulfill the Tasks and Targets of two years service and participation in the Special Camping Programme.
(f) $5 \%$ supernumerary seats in each course are available to candidates belonging to Other States. To consider a candidate under Other States category, the candidate should have studied in any state other than A.P. and be a native of a place outside A.P.
(g) $15 \%$ supernumerary seats are available to Foreign students in each course as per the D.O.No.F.1-30/94 (CPP-11) of UGC subject to their eligibility. Such candidates need not
appear for the Entrance Test. Their applications will be considered under separate fee structure applicable to foreign students.

## C. PROCEDURE FOR ADMISSION TO RESERVED SEATS:

(i) SC, ST and LBC (A, B, C, D, E) seats will be filled as per the order of merit (Rank) in each category.
(ii) In case of special reservation, University will constitute expert committees with competent authorities and they will fix the priority.

## ANNEXURE-I

## 5-YEAR INTEGRATED DUAL DEGREE \& TWINNING PROGRAMMES

| Test Code Name | Course Code \& Name | Eligibility | Student Strength |
| :---: | :---: | :---: | :---: |
| Test No. 511 - <br> 5 Year <br> Integrated Dual Degree Programmes. | Course Code : 51101 <br> B.Tech+M.Tech. Computer Science \& Software Engg. | $10+2$ with Mathematics, Phisics \& Chemistry with minimum 50\% Marks. | $\begin{gathered} 40 \text { (SF) } \\ 20 \text { (P) } \end{gathered}$ |
|  | Course Code : 51102 <br> B.Tech+M.B.A. Computer Science \& Software Engg. | -- do -- | $\begin{aligned} & 3 \text { (SF) } \\ & 2 \text { (P) } \end{aligned}$ |
|  | Course Code : 51103 <br> B.Tech+M.Tech. Computer Science \& Net Working. | -- do -- | $\begin{aligned} & 40 \text { (SF) } \\ & 20 \text { (P) } \end{aligned}$ |
|  | Course Code: 51104 <br> B.Tech+ M.B.A. Computer <br> Science \& Net Working | -- do -- | $\begin{aligned} & 3 \text { (SF) } \\ & 2 \text { (P) } \end{aligned}$ |
|  | Course Code : 51105 B.E+M.E. Electrical \& Electronics Engineering | -- do -- | $\begin{gathered} 20 \text { (SF) } \\ 10 \text { (P) } \end{gathered}$ |
|  | Course Code : 51106 <br>  <br> Electronics Engineering | -- do -- | $\begin{aligned} & 3 \text { (SF) } \\ & 2 \text { (P) } \end{aligned}$ |
|  | Course Code : 51107 <br> B.E+M.E. Civil Engineering | -- do -- | $\begin{gathered} \hline 40 \text { (SF) } \\ 20 \text { (P) } \\ \hline \end{gathered}$ |
|  | Course Code : 51108 B.E+M.B.A. Civil Engineering | -- do -- | $\begin{aligned} & 3 \text { (SF) } \\ & 2(\mathrm{P}) \\ & \hline \end{aligned}$ |
|  | $\frac{\text { Course Code : }: 51109}{\text { B.E+M.E. Mechanical }}$ Engineering | -- do -- | $\begin{gathered} 20 \text { (SF) } \\ 10 \text { (P) } \end{gathered}$ |
|  | $\quad$Course Code : 51110 <br> B.E+M.B.A. MechanicalEngineering | -- do -- | $\begin{aligned} & 3 \text { (SF) } \\ & 2 \text { (P) } \end{aligned}$ |
|  | Course Code : 51111 <br> B.E+M.E. Electronics \& Communications Engineering | -- do -- | $\begin{aligned} & 40 \text { (SF) } \\ & 20 \text { (P) } \end{aligned}$ |
|  | Course Code: 51112 <br> B.E+M.B.A. Electronics \& Communications Engineering | -- do -- | $\begin{aligned} & 3 \text { (SF) } \\ & 2 \text { (P) } \end{aligned}$ |
| Test No. 512 <br> TWINNING <br> PROGRAMMES: <br> B.Engg. Aircraft Engineering \& B.E. ElectroMechanical Engg offered in Dept. of Mechanical Engineering A.U | Course Code : 51201 <br> B.Engg. Aircraft Engineer- <br> ing | $10+2$ with Mathematics, Physics \& Chemistry with minimum 50\% Marks. English Medium only. | 30 (P) |
|  | Course Code : 51202 <br> B.E. Electro Mechanical Engineering | -- do -- | 20 (P) |

Note : SF - Self - Finance
$P$ - Payment Seats (No fee concession and reservation)

| ANNEXURE-II |  |  |
| :---: | :---: | :---: |
| 511-5-Year Integrated D | egree Programmes : |  |
| Part A | Part B | Part C |
| Mathematics syllabus prescribed for Intermediate course by Board of Intermediate Education, Andhra Pradesh. | Physcis syllabus prescribed for Intermediate course by Board of Intermediate Education, Andhra Pradesh. | Chemistry syllabus prescribed for Intermediate course by Board of Intermediate Education, Andhra Pradesh. |

512 - Twinning Programmes : B.Engg. Air Craft Engineering \& B.E. Electro-Mechanical Engg

| Part A | Part B | Part C | Part D |
| :---: | :---: | :---: | :---: |
| Articles/ prepositions, verb | Mathematics syllabus | Physics syllabus | Chemistry syllabus |
| forms, words often | prescribed for Inter - | prescribed for Inter - | prescribed for Inter |
| confused, structures, | mediate course by Board of | mediate course by Board | mediate course by Board |
| correction of sentences, phrasal verbs. | Intermediate Education, Andhra Pradesh | of Intermediate Education, Andhra Pradesh | of Intermediate Education, Andhra Pradesh. |

## MODELQUESTION PAPER

## For Test No. 511-5-Year Integrated Dual Degree Programmes :

## Time: 75 Min

Max. marks: 90
The test paper consists of 3 parts. Each part contains 30 multiple choice questions. Answer all questions in each part.

## Part - A: Mathematics (30 marks)

1. If $P=(1,1)$ and $P A, P B$ are tangents to a circle where $A, B$ are points of contact and if $A=(2,0), B=(0,0)$ then the centre of circle is
(a) $(1,-1)$
(b) $(4 / 3,4 / 3)$
(c) $(1 / 3,1 / 3)$
(d) $(2,-2)$

## Part - B: Physics ( $\mathbf{3 0}$ marks)

31. The horizontal range of a projectile is twice the maximum height reached by it for the given angle of projection. Then the ratio of potential energy to kinetic energy of this projectilef at the highest point of its path is
(a) $4: 1$
(b) $1: 4$
(c) $1: 2$
(d) $2: 1$

## Part-C: Chemistry ( $\mathbf{3 0}$ marks)

61. The total number of structural isomers that are possible with the formula $\mathrm{C}_{3} \mathrm{H}_{5} \mathrm{Cl}_{3}$ are
(a) 2
(b) 3
(c) 4
(d) 5

## For Test No. 512. Twinning Programmes

Time: 75 Min
Max. marks: 90
The test paper consists of 4 parts. Part-A consists of 15 multiple choice questions; Parts B,C \& D consists of 25 multiple choice questions each. Answer all questions in each part.

## Part - A: English (15 marks)

1. Last time, we met $\qquad$ a birthday party in Bombay.
(a) At
(b) On
(c) In
(d) Through

## Part - B: Mathematics ( 25 marks)

16. If the line $I x+m y=1$ is a tangent to the parabola $y^{2}=2(x+1)$ then the locus of $(1, m)$ is
(a) $2 x^{2}+y^{2}+2 x=0$
(b) $x^{2}+2 y^{2}=2 x$
(c) $x^{2}+y^{2}=2 x$
(d) $x^{2}-y^{2}=2 x$

## Part-C: Physics ( 25 marks)

41. Two point masses of 2 kg and 3 kg are placed at positions ( $1 \mathrm{~m}, 2 \mathrm{~m}, 4 \mathrm{~m}$ ) and ( $2 \mathrm{~m}, 3 \mathrm{~m}, 0 \mathrm{~m}$ ) respectively. The moment of inertia of the system about z -axis is
(a) $41 \mathrm{~kg} \mathrm{~m}^{2}$
(b) $81 \mathrm{~kg} \mathrm{~m}^{2}$
(c) $5 \times 10^{10} \mathrm{~N} / \mathrm{m}^{2}$
(d) $5 \times 10^{12} \mathrm{n} / \mathrm{m}^{2}$

Part-D: Chemistry ( 25 marks)
66. The temperature at which the RMS velocity of $\mathrm{O}_{2}$ be equal to the most probable velocity of $\mathrm{SO}_{2}$ at $27^{\circ} \mathrm{C}$ is
(a) $100^{\circ} \mathrm{C}$
(b) $100^{\circ} \mathrm{K}$
(c) $150^{\circ} \mathrm{K}$
(d) $600^{\circ} \mathrm{K}$

## IMPORTANT DATES

Last Date for receipt of filled-in Applications with out fine : 04-04-2012
Last Date for receipt of filled-in Applications with fine (Rs.1,000/-) : 18-04-2012
Commencement of Entrance Tests (Tentative) : 30-04-2012

