

**U.P. STATE ENTRANCE EXAMINATION**  
**Dr A.P.J. Abdul Kalam Technical University Uttar Pradesh**  
(Formerly U.P. Technical University, Lucknow)  
IET Campus, Sitapur Road, Lucknow

**INFORMATION BROCHURE**

[UPDATED]

**UPSEE – 2016**

**For Admission to**

**First Year of B. Tech /B.Arch. / B.Pharm./  
BHMCT/BFAD/BFA/MBA/MCA/MAM  
And  
2<sup>nd</sup> Year of B. Tech./B.Pharm./MCA (Lateral Entry)**

***Last Date for Submission of Application:***  
**March 27, 2016 (05:00 PM)**

***Date of Examinations:***  
**April 17, 2016 (Sunday)**  
**and**  
**April 23, 2016 (Saturday) & April 24, 2016 (Sunday)**

**Website**

**<http://www.upsee.nic.in>**

**Help Desk**

Toll free Number : 1800-180-0161

E-Mail : helpdesk.upsee2016@gmail.com

**Contact Address:**

Registrar

**Dr A.P.J. Abdul Kalam Technical University Uttar Pradesh**

IET Campus, Sitapur Road, Lucknow – 226 021 (U.P)

Phone: 0522 – 2732193, Fax: 0522 – 2732185

E-Mail: registrar@uptu.ac.in

Website: **<http://www.aktu.ac.in>**

## IMPORTANT INSTRUCTIONS

For Admission to First Year of B. Tech / B.Tech (Biotechnology)/B.Tech(Agriculture Engg.)/B.Arch. / B.Pharm./ BHMCT/BFAD/BFA/MBA/MCA/MAM and 2<sup>nd</sup> Year (Lateral Entry) of B. Tech/B.Pharm./MCA

1. **Application to the UPSEE-2016 can be made through submission of On-Line Application Form only. Interested** Candidates are required to fill the Application Form On-Line through the website <http://www.upsee.nic.in>.
2. On-Line application form through the website <http://www.upsee.nic.in> can be submitted from **24<sup>th</sup> February, 2016, 11:00 AM upto 27<sup>th</sup> March, 2016, 05:00 PM.**
3. Candidates are advised to read this Information Brochure carefully, check their eligibility and applicable reservation category etc. before filling and submitting the application form.
4. This Entrance Examination is open to the candidates who have passed the qualifying examination from any institution located in U.P. or whose parents are domicile of U.P subject to the eligibility conditions given in this Information Brochure. If the candidate has passed qualifying examination from outside U.P., he/she has to produce domicile certificate of his/her parents (**Father OR Mother only**) at the time of verification of the document.
5. **This Entrance Examination is also open to the candidates who have passed the qualifying examination from any institution located outside U.P. and whose parents (both Father and Mother) are not domicile of U.P subject to the eligibility conditions given in this Information Brochure.**
6. For submission of the On-Line application form refer section 18, 19, 20 and 21 of this Information Brochure.
7. Please note that candidates do not need to send "Confirmation Page" printed after completion and submission of On-Line application form to the University. However, the printout of the Confirmation page should be kept for record. Candidates are also advised to note down **the Application Form Number** for any future correspondences.
8. Candidates do not need to send hard copy / photo copy of any document, whatsoever, to the University at this stage.
9. **State Govt. has permitted 10% of the total sanctioned seats available in Technology / Architecture courses in private institutions affiliated to AKTU to be filled through combined merit of U.P. Domicile and Non U.P. Domicile candidates without reservation subject to eligibility conditions given in this Information Brochure. Thus, 10% of the total sanctioned seats in Technology / Architecture courses in Private Institutions, affiliated to AKTU, shall also be opened to the candidates whose parent belongs to the State other than Uttar Pradesh and has passed qualifying examination from an Institution located outside U.P. These seats shall be filled on the basis of UPSEE-2016 Merit.**
10. There is no age limit for admission to the courses covered in UPSEE-2016.
11. Accepting admission in any institution implies acceptance by the candidate and his/her parents or guardians with all the provisions given in this Information Brochure. Any change in the rules, regulations, fee and special conditions etc. of that institution shall mutandis apply to the admitted candidate.
12. Candidates filling the On-Line Application Form are required to upload scanned images of his/her latest color photograph, left hand thumb impression and signature. Application forms having blurred photographs are liable to be rejected.
13. Candidates claiming advantage of reserved categories, subcategories, rural weightage etc. are required to indicate the same in the Application Form and are not required to send any certificate to the University at this stage. These certificates, in original, will have to be produced at the time of Document Verification alongwith one self attested copy of each one of them. The proforma of the certificates are given at the end of this Information Brochure at **Appendix-D**, which are subject to change even upto the date of admission, as per the orders of Govt. of Uttar Pradesh. **Note that the certificate no. 2 for OBC candidates will be entertained only if it is issued on or after 01.04.2016 (mandatory due to condition of creamy layer for OBC).**
14. Candidates who are due to appear for the qualifying examination or have appeared, but results are awaited, are also eligible to appear in the UPSEE-2016. However, the candidates in respect of whom, the result of the qualifying examination has not been declared till the date of the document verification, due to any reason whatsoever, shall not be eligible for admission under any circumstances.
15. The result of UPSEE-2016 declared by Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow shall be final. However, the candidate can get his/her answer sheets scrutinized on payment of Rs. 5000/- per paper within seven days of declaration of result. The application for scrutiny may be submitted to the Registrar, Dr. A.P.J. Abdul Kalam Technical University Uttar Pradesh, Lucknow (U.P.) 226021 in writing.

16. If any document/declaration submitted by the candidate is found to be false at any stage, his/her admission shall be cancelled and he/she may be liable for prosecution under the law. In case of any legal dispute, the jurisdiction will be limited to Lucknow courts only.
17. The candidate must himself/ herself ensure about his/her eligibility to appear in the Entrance Examination. If a candidate, who is not eligible to appear in the examination, does so; he/ she will not have any claim whatsoever, for admission to any course through UPSEE-2016.
18. The Entrance Examination Fee for UPSEE-2016 is **Rs. 1000/- for Male/Transgender candidates of General & OBC category and Rs. 500/- for Female candidates/ Physically Handicapped candidates of all categories and SC/ST candidates.**
19. The number of Colleges / Institutions, courses and seats may increase or decrease upto the counselling dates.
20. If any of the qualifying examination Board/University awards only letter grades without providing an equivalent percentage of mark on the grade sheet, the candidate should obtain a certificate from the Board/ University specifying equivalent marks and submit it at the time of document verification. In case, such a certificate is not provided by the candidate, the decision of the Central Admission Board (**CAB**) regarding his / her eligibility shall be final.
21. The allotment of seat through counselling will be carried out strictly in accordance with the UPSEE-2016 merit of the candidate, subject to the order of preference given for the seats and availability of seat in the category. **Once the seat is allotted to the candidate, no change in the Institution / Branch is admissible.**
22. **The fee paid at the time of counselling by the candidate after the allotment of seat will be forfeited** and will not be refunded under any circumstances, if the candidate does not report for the admission to the allotted institutions.
23. **No tuition fee shall be charged from eligible SC/ST candidates** by the institutions affiliated to AKTU, Lucknow at the time of granting admission as per U.P. Govt. order no. 37 Bha.Saa./26-03-04-4(77)/02 dated:18-06-04. A relaxation in the **tuition fee amount equal to tuition fee of Government Institutions** has been granted to OBC / General Category economically weaker students by the Govt. vide order no. 4136/solah-1-2008-135/2008 dated: 8-10-08 and 2991/solah-1-2008-14(34)/2008 dated: 16-09-08. The candidate will have to produce the required prescribed certificate / documents in the institution as enforced vide G.O. no. 6048/solah-1-2008-1(17)/2008 dated 06-01-08. Govt. orders released time to time shall be applicable. The institutions will charge tuition fee after granting this relaxation to the eligible candidates as per the current fee structure determined by the fee determination committee available at website [www.afrcup.in](http://www.afrcup.in).
24. This Information Brochure is both in English and Hindi languages. In case of any discrepancy, the **English version shall be final** for all purposes.
25. All information in connection with UPSEE-2016 shall be made through University Website <http://www.upsee.nic.in> or <http://www.aktu.ac.in>. The candidates are advised to refer to this website regularly/frequently failing which AKTU will not be responsible for any loss due to the lack of communication.
26. In case of any deficiency in application form, it is likely to be rejected and sole responsibility of its consequences will lie on the candidate and representation in this regard shall not be entertained.
27. Abbreviations used:
 

<b>AKTU</b>	-	Dr A.P.J. Abdul Kalam Technical University Uttar Pradesh, Lucknow
<b>UPSEE-2016</b>	-	Uttar Pradesh State Entrance Examination - 2016
<b>B. Tech.</b>	-	Bachelor of Technology
<b>B. Pharm.</b>	-	Bachelor of Pharmacy
<b>B. Arch.</b>	-	Bachelor of Architecture
<b>BHMCT</b>	-	Bachelor of Hotel Management & Catering Technology
<b>BFAD</b>	-	Bachelor of Fashion & Apparel Design
<b>BFA</b>	-	Bachelor of Fine Arts
<b>MBA</b>	-	Master of Business Administration
<b>MCA</b>	-	Master of Computer Application
<b>MAM (Dual Degree)</b>	-	Master of Applied Management (Dual Degree)

**Note: UPSEE-2016 is being conducted for admission to all the Technical Institutions / Colleges affiliated to the AKTU, Lucknow. Admissions in some of the courses in the other Universities of U.P. are also done through UPSEE-2016.**

**U P STATE ENTRANCE EXAMINATION (UPSEE – 2016)**  
**For Admission to First Year of B. Tech. /**  
**B.Tech.(Biotechnology)/B.Tech.(Agriculture Engg.)/ B.Arch. / B.Pharm./**  
**BHMCT/BFAD/BFA/MBA/MCA/MAM**  
**and**  
**2<sup>nd</sup> Year (Lateral Entry) of B.Tech./B.Pharm./MCA**

**1. CENTRAL ADMISSION BOARD (CAB)**

The entrance examination for degree level engineering institutions and other professional colleges has been assigned to Dr A.P.J. Abdul Kalam Technical University Uttar Pradesh, Lucknow vide Govt. order no. 590/solah-1-2016-14(54)/2012 dated 10-02-2016. The Govt. of Uttar Pradesh, Technical Education Department, has consented for the constitution of Central Admission Board (CAB) under the Chairmanship of the Vice Chancellor, Dr A.P.J. Abdul Kalam Technical University Uttar Pradesh, Lucknow to supervise and control the State Entrance Examination herein after referred as UPSEE-2016 being conducted by Dr A.P.J. Abdul Kalam Technical University Uttar Pradesh, Lucknow. The CAB has absolute rights for conducting of UPSEE-2016, and to decide about modalities of admissions and allotment of seats. The jurisdiction of CAB extends to colleges / institutes affiliated to AKTU, Lucknow. The CAB is authorised to take every decision regarding conduct and admissions through UPSEE-2016.

**2. MODE OF ADMISSION**

**2.1 ADMISSION TO FIRST YEAR**

The Entrance Examination for admission to first year of the following courses offered at the Institutions affiliated to AKTU, Lucknow including other mentioned universities situated in territory of Uttar Pradesh for the academic year 2016-2017 shall be conducted by Dr A.P.J. Abdul Kalam Technical University Uttar Pradesh, Lucknow.

- |   |                                    |
|---|------------------------------------|
| (i) 4 years B. Tech./B.Tech. (Ag. Engg.) Course | (vi) 4 years BFA Courses           |
| (ii) 4 years B.Pharm. Course                    | (vii) 3 years MCA Course           |
| (iii) 5 years B.Arch. Course                    | (viii) 2 years MBA Course          |
| (iv) 4 years BHMCT Course                       | (ix) 5 years integrated MAM Course |
| (v) 4 years BFAD Course                         |                                    |

**2.2 DIRECT ADMISSION (LATERAL ENTRY) TO SECOND YEAR OF B.TECH./ B.PHARM./MCA**

- (i)<sup>1</sup> The eligible candidates (Refer clause 3.3) seeking direct admission to second year of B.Tech. (for engineering diploma holders and B.Sc. graduates) or B.Pharm. (Only for pharmacy diploma holders) or MCA (for BCA, B.Sc (IT/ Computer Science) degree holders) in institutions affiliated to AKTU, Lucknow are required to submit the application forms by the last date. Such candidates are also required to appear in the specified paper of entrance examination.

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<sup>1</sup> As per AICTE Notifications F-11-140/2004-NRO/AICTE-33 dated 9-06-2004 & F.37-3/Legal/2007 dated 12.01.07 and U.P.Govt. Order no. 256 / Solah – 1 – 2007 – 1(01) / 2005 dated 14.02.07.

- (ii)<sup>2</sup> Such seats are limited to a maximum of 20% in addition to the sanctioned intake in institutions/ colleges for different courses at first year level. However for B.Tech., the students belonging to the B.Sc. stream shall be considered only after filling the seats in this category with students of Diploma stream.
- (iii) Direct admission to Second year shall not be made in B.Arch./BHMCT/BFAD/BFA/MBA/MAM Courses.

### **2.3 SEATS UNDER DIFFERENT SCHEME IN FIRST YEAR**

- (i) Number of admissions in all courses offered at Institutions affiliated to AKTU, Lucknow, will be only through UPSEE-2016, after deducting the seats filled under clause 2.4.
- (ii) State Govt. has permitted 15%<sup>£</sup> of total sanctioned seats available in Private Institutions to be filled by the NRI candidates under Management quota; and the same shall be filled up in accordance with the procedure prescribed in the Govt. orders. The remaining seats in various courses offered at all the Institutions affiliated to AKTU, Lucknow will be filled through UPSEE-2016 counselling.
- (iii) **State Govt. has permitted 10% of the total sanctioned seats available in Technology / Architecture courses in private institutions affiliated to AKTU to be filled through combined merit of U.P. Domicile and Non U.P. Domicile candidates without reservation subject to eligibility conditions given in this Information Brochure. Thus, 10% of the total sanctioned seats in Technology / Architecture courses in Private Institutions, affiliated to AKTU, shall also be opened to the candidates whose parent belongs to the State other than Uttar Pradesh and has passed qualifying examination from an Institution located outside U.P. These seats shall be filled on the basis of UPSEE-2016 Merit.**
- (iv) State Govt. has also permitted 20% of the total sanctioned seats of MBA in Private Institutions to be filled on the basis of latest CMAT-2016 merit (Common Management Admission Test).
- (v) Thus, 65% seats available in MBA and 85% seats in the first year of remaining courses at all Private Institutions will be filled by the UPSEE-2016 qualified candidates.

### **2.4 ADMISSION TO NON-RESIDENT INDIAN (NRI) CANDIDATES IN FIRST YEAR**

NRI candidates, who possess prescribed qualifications (clause 3.4), may get direct admission on 5% seats of total intake in Govt. / Govt. aided and Private Institutions having approval from AICTE for NRI seats on merit, subject to the latest instructions of Govt. of U.P. The detailed information will be published in the month of May 2016 in various newspapers and university website. The candidates, seeking for admission under this scheme, need not appear in UPSEE-2016. However applicants opting B.Arch. course under this category has to appear in an Aptitude Test on the day of counseling to be notified later.

### **2.5 ADMISSION TO KASHMIRI MIGRANTS IN FIRST YEAR**

Direct admission to Kashmiri Migrants in first year in each institute is to be made as per the latest instructions of AICTE and orders from U.P. Govt. Such admissions will be over and above the sanctioned intake and normally limited upto one admission per Institute affiliated to AKTU, Lucknow. The detailed information will be published in the month of May 2016 in various newspapers and University website <http://www.aktu.ac.in>. The candidates, opting for admission under this scheme, need not appear in UPSEE-2016.

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<sup>2</sup> Subject to change as per latest orders of Govt. of U.P. / AKTU upto the date of counselling.

<sup>£</sup> It is as per State Govt. order and may change as per latest instructions of Govt. of U.P. upto the date of counselling.

**2.6 ADMISSION TO FOREIGN NATIONALS (FN) / PERSONS OF INDIAN ORIGIN (PIO) / CHILDREN OF INDIAN WORKERS IN GULF COUNTRIES (CIWGC)**

Under the approval of AICTE, identified institutions shall admit **FN/PIO/CIWGC** up to the extent sanctioned by AICTE as per the eligibility criteria (clause 3.5) and guidelines of the University. These supernumerary seats shall be exclusively meant for the FN/PIO/CIWGC students in undergraduate courses with the condition that under no circumstances a seat remained unfilled shall be allocated to candidates other than a FN/PIO/CIWGC. The candidates, opting for admission under this scheme, need not appear in UPSEE-2016.

**2.7 ADMISSION TO FEE WAIVER SEATS FOR ECONOMICALLY WEAKER MERITORIOUS STUDENTS**

As per AICTE notification fee waiver seats for economically weaker meritorious candidates are also available in B.Tech/ B.Arch/ B.Pharm/B.HMCT/B.FAD/BFA courses in all institutions affiliated to AKTU, Lucknow. No tuition fee will be charged from the such candidates admitted against such seats. The fee waiver seats will be limited to maximum of 5% of the approved intake in the course, and will be over and above of the sanctioned intake. **The economically weaker students must submit certificate no. 12 (Income Certificate) at the time of verification of documents.**

**3. ELIGIBILITY CRITERIA**

The candidates must fulfill the eligibility criteria as given in clause 3.1/3.2/3.3 to appear in UPSEE-2016. However, the candidates appearing in the qualifying examinations are also eligible to appear, subject to the condition that they must fulfill the eligibility criteria as given in clause 3.1/3.2/3.3 at the time of counselling.

**3.1 ELIGIBILITY TO APPEAR IN UPSEE-2016 FOR ADMISSION TO FIRST YEAR OF B.TECH. / B.PHARM. / B.ARCH. / BHMCT / BFAD / BFA**

- (i) The subject combination required in the **qualifying examination** (intermediate examination of U.P. Board or 10+2 level examination or its equivalent) for admission to first year of different courses shall be as follows:

Course	Compulsory Subjects	Anyone of the following Subjects
B. Tech.	Physics & Mathematics	Chemistry/ Bio-Technology / Biology / Technical Vocational subject
B. Tech.(Bio-Technology)	(i) Physics & (ii) Mathematics OR Biology	Chemistry/ Bio-Technology / Technical Vocational subject
B. Pharm.	Physics & Chemistry	Mathematics/ Bio-Technology/ Biology / Technical Vocational Subject
B. Arch.	Mathematics & Physics	Chemistry/ Computer Science/ Biology/ Engineering Drawing / Technical Vocational subject
B.Tech. (Agriculture Engg.)	Agriculture discipline. *	
BHMCT / BFAD/BFA	Any discipline.	

- (ii) For admission to first year of B.Tech./ B.Pharm., candidate must have clearly passed intermediate examination of U.P. Board or 10+2 level examination or its equivalent from any recognized Board / University without grace in required each compulsory subjects and one optional subject as given in clause 3.1 (i) and securing minimum 45% marks (40% marks for SC/ST Category candidates) in aggregate in required three subjects.
- (iii) For admission to first year of BHMCT/BFAD/BFA, candidate must have clearly passed intermediate examination of U. P. Board or 10+2 level examination or its equivalent from any recognized Board / University and securing minimum 45% marks without grace (40% marks for SC/ST category candidates) in aggregate.
- (iv) For admission to first year of B. Arch., a candidate must have clearly passed intermediate examination of U. P. Board or 10 + 2 level examination or its equivalent from any recognized Board / University and securing (i) minimum 50% marks in aggregate and (ii) clearly passed without grace, each compulsory and optional subjects as given in clause 3.1(i).

A candidate possessing three years Diploma in Architecture (10+3) recognized by Central / State Govt., is also eligible for admission to first year of B. Arch. only, provided the candidate has passed the Diploma examination securing minimum 50% marks in aggregate without grace. Such candidates will have to appear in the entrance examination for first year of B. Arch. Paper 4 (clause 4.3).

- (v) **All candidates who are eligible for admission in B.Tech. Courses are also eligible for B.Tech. (Agriculture Engineering) and B.Tech. (Biotechnology).**

### **3.2 ELIGIBILITY TO APPEAR IN UPSEE-2016 FOR ADMISSION TO FIRST YEAR OF MBA/ MCA/MAM**

- (i) For admission to first year of MBA in any institution affiliated to AKTU, Lucknow, a candidate must have passed Bachelors degree course of three years minimum duration from any recognized Indian University; or its equivalent, recognized by A.I.U securing minimum 50% (45% for SC/ST) marks in aggregate.
- (ii) For admission to first year of MCA in any institution affiliated to AKTU, Lucknow, a candidate must have passed Bachelors degree course of three years minimum duration from any recognized Indian University; or its equivalent, recognized by A.I.U. securing minimum 50% (45% for SC/ST) marks in aggregate. Candidate must have passed Mathematics at 10+2 level or Graduation level.
- (iii) For admission to first year of MBA/MCA in other Universities of U.P., a candidate must have passed Bachelor degree course with the eligibility conditions given in following table subject to the confirmation received from the concerned University:

Sl. No	Name of University/ Institutions	Course(s)	Minimum pass marks at three years Graduation level	Remarks/ Compulsory conditions
1	C.S.J.M. Kanpur University, Kanpur	MBA MBA-Finance & Control (M3) MBA-Business Economic(M2) MBA-Tourism Management(M4)	As per AICTE norms.	
		MCA	As per AICTE norms.	Maths at 10+2 level.
2	Dr. R. M. L. Avadh University, Faizabad	MBA	Graduate with 50% marks	
		MCA	Graduate	Maths at 10+2 or Graduation level.
3	M.G. Kashi Vidyapith University, Varanasi	MBA	Graduate	
		MCA	Graduate with 45% marks	Maths at 10+2 level.

4	V.B.S. Purvanchal University, Jaunpur	MBA (M1) MBA Agri. Business (M17) MBA E-Commerce (M21) MBA Business Economics (M2) MBA Finance & Control (M3) MBA Human Research & Development (M22)	As per UPSEE norms.	
		MCA	As per UPSEE norms.	Maths at 10+2 or Graduation level
5	M.J.P. Rohilkhand University, Bareilly	MBA (General) (M1) MBA (Marketing) (M20)	Graduation 50%	
		MCA	As per UPSEE norms	Maths at 10+2 or Graduation level.
6	D.D.U. Gorakhpur University, Gorakhpur	MBA	Minimum 40% marks at Graduation level	
7	Institute of Business Studies, Ch. Charan Singh University, Meerut	MBA	Graduate	
	Sir Chhotu Ram Institute of Engineering & Technology, Ch. Charan Singh Campus, Meerut	MBA (M1) MBA-IB (M5)	Graduate	
		MCA	Graduate	Maths at 10+2 or Graduation level.
8	Dr. B.R. Ambedkar University, Agra	MBA	As per UPSEE	
		MCA	As per UPSEE	
9	Bundelkhand University, Jhansi	MBA MBA (International Business)(M5) MBA (Finance Management)(M6) MBA (Tourism Management)(M4)	50%	
		MCA	50% in B.Sc.(Maths/Stats)/BCA/ B.Sc.IT /B.Sc.(CS)/B.Sc.(IT).Maths at 10+2 level is compulsory	
10	Uttar Pradesh Vikalanga Uddhar Dr. Shakuntala Misra Vishwavidyalaya, Lucknow	MBA	Graduate	
11	Khawaja Moinuddin Chishti Urdu, Arabi-Farsi University, Lucknow.	MBA	Minimum 50% marks (45% for SC/ST) at Graduation Level	

- (iv) For Admission to first year of **MAM Course (Dual degree)**, a candidate must have passed Intermediate examination of U.P. Board or 10+2 level examination or its equivalent from any recognized Board/ University and securing minimum 45% marks without grace (40% marks for SC/ST category candidates) in aggregate.

### 3.3 ELIGIBILITY TO APPEAR IN UPSEE-2016 FOR ADMISSION TO SECOND YEAR (LATERAL ENTRY) OF B. TECH. / B. PHARM./MCA

- (i) Direct Admission (Lateral Entry) in second year of B.Arch./BHMCT/BFAD/BFA/MBA courses is not permissible.
- (ii) Lateral entry in "B.Tech. for Engg. Diploma holders or B.Sc. Graduates with Mathematics as one of the subject at XII standard"/ "B.Pharm. for Diploma holders" in third semester (second year)/"MCA



for Graduates of BCA or B.Sc.-Information Technology/Computer Science in third semester (second year)", is open only in the institutions affiliated to AKTU, Lucknow.

- (iii) Candidates who have passed 'three years Engg. Diploma from an Institution located in U.P. with minimum 45% marks (40% for SC/ST) OR 'whose parents (Father or mother) are domicile of Uttar Pradesh' and he/she has passed three years Engg. Diploma with minimum 45% marks (40% for SC/ST) recognized by the Board of Technical Education, U.P., in any branch of Engineering (except Agriculture Engg., Pharmacy and Architecture), are eligible for admission to Second year in any branch of Engineering / Technology.
- (iv) Candidates who have passed 'three years Diploma in Agriculture Engg. from an Institution located in U.P. with minimum 45% marks(40% for SC/ST)' OR 'whose parents (Father or mother) are domicile of U.P.' and he/she has passed three years Diploma in Agriculture Engg. with minimum 45% marks(40% for SC/ST) recognized by the Board of Technical Education, U.P., are eligible for admission to Second year of Agriculture Engg. Branch only.
- (v) Candidates who have passed 'three years B.Sc. degree and passed XII standard with mathematics as one of the subject' from any recognized University; securing minimum 45% marks (40% for SC/ST) in aggregate, are also eligible for admission to second year in any branch of Engineering/ Technology.
- (vi) Candidates who have passed 2/3 years Diploma in Pharmacy from an Institution located in U.P. with minimum 45% marks (40% for SC/ST)' OR 'whose parents are domicile of U.P.' and he/she has passed 2/3 years Diploma in Pharmacy with minimum 45% marks (40% for SC/ST) recognized by the Board of Technical Education, U.P., are eligible for admission to second year of B.Pharm. only.
- (vii) For Admission to **2<sup>nd</sup> year of MCA course (Lateral Entry)**, in any institution affiliated to AKTU, Lucknow, a candidate must have passed Bachelors degree course of minimum three years duration in BCA, B.Sc (IT/ Computer Science) from any recognized Indian University; or its equivalent, recognized by A.I.U. securing minimum 50% (45% for SC/ST) marks in aggregate. The candidate must have passed Mathematics at 10+2 level or Graduation level.

### **3.4 ELIGIBILITY FOR ADMISSION TO NRI QUOTA IN FIRST YEAR**

NRI candidates who possess minimum requisite qualification may get direct admission on 5% seats of total intake in State Funded and Private Institutions of Uttar Pradesh in all courses except MBA/MCA/MAM. However, applicants opting B.Arch. course under this category has to appear in Aptitude Test on the day of counseling to be notified later. The University shall fill the seats of NRI quota (5%) seats in the following manner:

- (i) NRI quota seats shall be filled from NRI's, who
    - (a) have passed the qualifying examination with Physics, Chemistry and Mathematics from an Institution situated outside India, which is considered equivalent to (10+2) examination by the Association of Indian Universities.
- OR
- (b) have appeared in SAT II examination with Mathematics level II C, Physics and Chemistry.

Their relative merit will be decided on their SAT-II score.

- (ii) The vacant seats in NRI quota, if any, shall be filled up by such son / daughter / real brother /real sister of NRI's, who have passed intermediate or (10+2) or equivalent examination; with physics, chemistry and mathematics without grace in each of physics, chemistry and mathematics and

securing minimum 50% marks (45% for SC/ST) in physics, chemistry and mathematics taken together, from an institution situated in India.

- (iii) The children of real brother / sisters and son / daughter of NRI may also be considered if the seats remain vacant after admitting the eligible NRI, their son/daughter and real brother/sister. The minimum requisite qualification shall be same as clause 3.4(ii).
- (iv) The relative merit of candidates will be decided based on the total marks obtained by them in physics, chemistry and mathematics. Such candidates need not appear in the UPSEE-2016.
- (v) **All such candidates MUST submit an NRI certificate obtained from Indian Diplomatic Mission / Chancery / High Commission under their seal at the time of counselling.**
- (vi) **The candidate MUST also submit sufficient documents clarifying without ambiguity their true relationship with the sponsoring NRI to the satisfaction of the University.**
- (vii) The candidates will be informed separately about the date of counselling, and number of seats under this quota, and they are required to be present in person on the day of counselling with original documents / certificates, failing which they will lose their claim.
- (viii) The latest orders issued by Govt. of U.P. upto the date of NRI counselling shall be applicable for admission in NRI quota.
- (ix) The detailed information will be published through Newspapers and websites: <http://www.aktu.ac.in> or <http://www.upsee.nic.in> in the month of May 2016.

### **3.5 ELIGIBILITY FOR ADMISSION TO FOREIGN NATIONALS (FN) / PERSONS OF INDIAN ORIGIN (PIO) / CHILDREN OF INDIAN WORKERS IN GULF COUNTRIES (CIWGC) IN FIRST YEAR**

FN/PIO/CIWGC seats shall be filled from Foreign Nationals / PIO's/CIWGC who:

- (i) have passed the qualifying examination with Physics, Chemistry and Mathematics, which is considered equivalent to (10+2) examination by the Association of Indian Universities.
- (ii) Posses valid SAT-II score with Mathematics level II C, Physics and Chemistry.
- (iii) should submit a copy of passport or equivalent evidence support of their Nationality. Their relative merit shall be decided based on their SAT-II score.

### **3.6 ELIGIBILITY FOR DIRECT ADMISSION TO FIRST YEAR IN PRIVATE INSTITUTIONS AT INSTITUTE LEVEL UNDER MANAGEMENT QUOTA (FOR NRI CANDIDATES) / VACANT SEATS AFTER COUNSELLING OF UPSEE-2016**

- (i) The 15% seats<sup>3</sup> in private institutions shall be filled by the NRI candidates at institute level under management quota as per eligibility criteria in clause 3.4. The vacant seats in NRI/Management quota or vacant seats after counselling of UPSEE-2016 shall be filled strictly in following preference order, within fifteen days of the last date of counselling:
  - (1) Firstly, (a) by the qualified candidates of JEE (Main)-2016 fulfilling the eligibility as per clause 3.1 for B.Tech./B.Arch, (b) by the qualified candidates of valid CMAT/CAT/MAT score fulfilling the eligibility as per clause 3.1 for MBA. Their relative merit will be decided on their rank in respective entrance examinations.
  - (2) Secondly, by the qualified candidates of UPSEE-2016, who fulfill the eligibility as per clause 3.1. Their relative merit will be decided on their rank in UPSEE-2016.
  - (3) Thirdly, by the merit of candidates in qualifying examination with the following conditions:

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<sup>3</sup> It is as per State Govt. order and may change as per latest instructions of Govt. of U.P. upto the date of counselling.

- (a) For admission to first year of B. Tech. / B. Pharm., candidate must have passed intermediate examination of U. P. Board or 10+2 level examination or its equivalent from any recognized Board / University; securing minimum 50% (45% for SC/ST) marks in required subject combination (two compulsory & one optional) taken together. The candidate is essentially required to pass without any grace marks (as per respective Board/University) in each subject of the subject group indicated in para 3.1 (i). The relative merit shall be decided based on total marks in subject combination (clause 3.1(i)) of qualifying examination.
- (b) For admission to first year of BHMCT/BFAD/BFA/MAM, candidate must have passed intermediate examination of U. P. Board or 10+2 level examination or its equivalent from any recognized Board / University; securing minimum 50% (45% for SC/ST) marks in aggregate without any grace marks. The relative merit shall be decided based on aggregate of qualifying examination.
- (c) For admission to first year of MBA in any institution affiliated to AKTU, Lucknow , a candidate must have passed minimum three years Bachelor degree course from any recognized University; securing minimum 50% (45% for SC/ST) marks in aggregate without any grace marks. The relative merit shall be decided based on aggregate of qualifying examination.
- (d) For admission to first year of MCA in any institution affiliated to AKTU, Lucknow, a candidate must have passed minimum three years Bachelor degree course from any recognized University; securing minimum 50% (45% for SC/ST) marks in aggregate without any grace marks. Candidate must have passed mathematics at 10+2 level. The relative merit shall be decided based on aggregate of qualifying examination.
- (ii) Institute shall ensure filling of these vacant seats inviting the applications through advertisement in atleast two leading newspapers of the State level and Institute website, giving atleast one-week time to submit the applications. Admissions shall be strictly based on clause 3.6(i) mentioned above. However, applicants opting B.Arch. course under this category has to appear in Aptitude Test on the day of counseling to be notified later.

### **3.7 ELIGIBILITY FOR DIRECT ADMISSION (LATERAL ENTRY) TO SECOND YEAR IN PRIVATE INSTITUTIONS UNDER VACANT SEATS AFTER COUNSELLING OF UPSEE-2016<sup>4</sup>**

The vacant seats in B. Tech./B.Pharm./MCA course after UPSEE-2016 counselling for lateral entry (second year) shall be filled within 15 days of the last date of counseling at institute level, firstly by the qualified candidates of UPSEE-2016, who fulfill the eligibility as per clause 3.3. Their relative merit will be decided on their rank in UPSEE-2016.

There after, the vacant seats, if any, will be filled on merit by such candidates who have passed the qualifying examination securing minimum 50% (45% for SC/ST) marks in aggregate without any grace marks.

Institute shall ensure the filling of these seats by inviting the applications through advertisement in atleast two leading newspapers of state and institute website, and give atleast one week time to submit the applications.

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<sup>4</sup> It is as per State Govt. order and may change as per latest instructions of Govt. of U.P. upto the date of counselling.

## 4. EXAMINATION DETAILS

UPSEE-2016 will be conducted for TWELVE papers with objective multiple type questions except Drawing Aptitude test (Part B of paper 4). The candidates are required to opt papers and subjects for appearing in the entrance examination as mentioned in clause 4.3, subject to their eligibility as per clause 3. Paper 1, Paper 2, Paper 3 and Paper 4 shall be **OMR based Test only**. Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10, Paper 11 and Paper 12 will be **Computer Based Test only**.

### 4.1 SCORING AND NEGATIVE MARKING

- (i) All objective type questions are required to be answered on a specially designed OMR answer sheet against the respective question number. Candidate is supposed to select only one choice for correct answer in each question.
- (ii) Every objective multiple type question would carry four marks for each correct answer. More than one answers indicated against the question will be deemed as incorrect answer and no marks is awarded for the incorrect answer.
- (iii) There will be **no negative marking**. However, a record of incorrect answers given by a candidate will be kept separately.
- (iv) Answers in OMR based examination (Paper 1, Paper 2, paper 3 and Paper 4) are to be marked using ballpoint pen (Black / Blue) only. For the purpose of evaluation in these papers, the details filled in by the candidate in the OMR answer sheet will be treated as final.

### 4.2 QUESTION PAPERS AND SUBJECTS IN THE ENTRANCE EXAMINATION

Paper	Subjects	Number of Questions	Marks
Paper 1	Physics, Chemistry and Mathematics	50 objective type questions each of Physics, Chemistry and Mathematics with a total of 150 questions.	600
Paper 2	Physics, Chemistry and Biology	50 objective type questions each of Physics, Chemistry and Biology with a total of 150 questions.	600
Paper 3	AG-I, AG-II and AG-III	50 objective type questions each of AG-I, AG-II and AG-III with a total of 150 questions.	600
Paper 4	Aptitude Test for Architecture Part-A: Mathematics and Aesthetic Sensitivity Part-B: Drawing Aptitude	50 objective type questions each of Mathematics and Aesthetic Sensitivity with a total of 100 questions and Two questions to test drawing aptitude.	500
Paper 5	Aptitude Test for General Awareness (BHMCT/BFAD/BFA)	75 objective type questions	300
Paper 6	Aptitude Test for Diploma Holders in Engineering (Lateral Entry)	75 objective type questions	300

Paper 7	Aptitude Test for Diploma Holders in Pharmacy (Lateral Entry)	75 objective type questions	300
Paper 8	Aptitude Test for B.Sc. Graduates in Engineering (Lateral Entry)	75 objective type questions	300
Paper 9	Aptitude Test for MBA	100 objective type questions	400
Paper 10	Aptitude Test for MCA	100 objective type questions	400
Paper 11	Aptitude Test for MAM	100 objective type question	400
Paper 12	Aptitude Test for 2 <sup>nd</sup> Year MCA (Lateral Entry)	100 objective type question	400

#### 4.3 QUESTION PAPERS REQUIRED FOR DIFFERENT COURSES

COURSE	PAPERS
B. Tech. / B. Tech. (Agriculture Engineering)	Paper 1
B. Tech. (Bio Technology)	Paper 1 or Paper 2
B. Tech. (Agriculture Engineering) only <sup>5</sup>	Paper 3
B. Pharm.	Paper 1 or Paper 2
B. Arch. <sup>6</sup>	Paper 4
BHMCT / BFAD/BFA	Paper 5

<b>Lateral Entry:</b> B.Tech. 2 <sup>nd</sup> Year (for Engg. Diploma Holders) B.Pharm 2 <sup>nd</sup> Year (for Pharmacy Diploma Holders) B.Tech. 2 <sup>nd</sup> Year (for B. Sc. Graduates)	Paper 6 Paper 7 Paper 8
MBA	Paper 9
MCA	Paper 10
MAM (Dual Degree)	Paper 11
<b>Lateral Entry: 2<sup>nd</sup> Year MCA</b>	Paper 12

<sup>5</sup> See Clause 3.1 (v) also.

<sup>6</sup> Diploma holders of Architecture are also required to appear in paper 4. See clause 3.1(iv) also.

## 5 SCHEDULE OF EXAMINATION

Date of Examination	Paper Code	Subjects	Timing (Total Time Period)
17 <sup>th</sup> April, 2016 (Sunday)	Paper 1/	Physics, Chemistry and Mathematics /	10:00 AM to 1:00 PM (3 Hours)
	Paper 2/	Physics, Chemistry and Biology /	
	Paper 3	AG-I, AG-II and AG-III	
	Paper 4	Aptitude Test for Architecture	2.30 PM to 5:00 PM ( 2 Hours 30 Minutes)
23 <sup>rd</sup> April, 2016 (Saturday)	Paper 5	Aptitude test for General Awareness (BHMCT/BFAD/BFA)	10:00 AM to 11:30 AM (1 Hour 30 Minutes)
	Paper 6/	Aptitude Test for Diploma Holders in Engg. /	2:30 PM to 4:00 PM (1 Hour 30 Minutes)
	Paper 7/	Aptitude Test for Diploma Holders in Pharmacy /	
	Paper 8	Aptitude Test for B.Sc. Graduates	
24 <sup>th</sup> April, 2016 (Sunday)	Paper 09/	Aptitude Test for MBA/	9:00 AM – 11:00 AM (2 Hours )
	Paper 11	Aptitude Test for MAM	
	Paper 10	Aptitude Test for MCA	1:00 PM – 3:00 PM (2 Hours )
	Paper 12	Aptitude Test for 2 <sup>nd</sup> Year MCA (Lateral Entry)	4:00 PM –6:00 PM (2 Hours )

## 6. SYLLABUS

The Syllabus for each question paper for the UPSEE-2016 is given at Appendix–A.

## 7. EVALUATION AND DECLARATION OF RESULT

- 7.1 The results of UPSEE-2016 alongwith answer keys will be declared on or before 30<sup>th</sup> May, 2016.
- 7.2 Based on performance of the candidates in UPSEE-2016, separate merit lists will be prepared for each course. Merit position, score-card with total marks and marks obtained in each subject shall be available on website **after the declaration of the result.**

7.3 In case two or more candidates secure equal marks, inter-se-merit of such candidates shall be determined as follows:

(a) **Firstly**, by the number of incorrect answers given. A candidate giving lesser number of incorrect answers will be placed at higher merit.

(b) **Secondly**,

B. Tech. :By the marks obtained in Mathematics, Physics, Chemistry sections of Paper 1 respectively and then by age.\*

B. Pharm. :By marks obtained in Biology,Chemistry,Physics sections of Paper 2 respectively and then by age.\*

B. Arch. :By marks obtained in Drawing Aptitude, Mathematics & Aesthetics sensitivity section of Paper 4 respectively and then by age.\*

B.Tech.(Ag.Engg.) :By marks obtained in AG-I,AG-II,AG-III section of Paper 3 respectively and then by age.\*

B.Tech. (Bio Tech.): Same as applicable in B.Tech./ B.Pharm

BHMCT/BFAD/BFA/MAM/MBA/MCA/Lateral entry: \*By age only

\* Candidate with higher age will be placed at higher merit.

7.4 The cut-off percentage of marks in UPSEE-2016 for the merit of successful candidates is 25% (20% for SC/ST) as per UP State Govt order.

7.5 Successful candidates shall be called for counselling according to their merit in UPSEE-2016 by giving intimation through Newspapers and website. However, the allotment of seat shall depend on the availability of the seats on the day of counseling. The successful candidates are advised to keep a close watch on websites <http://www.aktu.ac.in> or <http://www.upsee.nic.in> and Newspapers for counselling dates. The counselling schedule can be downloaded from the website.

## 8. CATEGORY DEFINITIONS

8.1 Candidates, who have passed the qualifying examination from an institution located in the State of Uttar Pradesh and who do not claim for any reserved category are eligible for admission to all the courses at all the institutions against available General (OPEN) seats.

[Code: **UPGE**]

*No category certificate required from such candidates.*

8.2 Candidates, who have passed the qualifying examination from an institution located in State of U.P.; and are domicile of U.P.; and belong to Schedule Caste (SC) of U.P. / Schedule Tribe (ST) of U.P. / Other Backward Classes of U.P. are eligible for admission against available reserved seats of their category.

[Respective Codes: **UPSC / UPST / UPBC**]

*Certificate No. 1 or 2, as applicable, is required.*

8.3 Candidates, who have passed the qualifying examination from an institution located outside U.P.; and whose parents are domicile of U.P.; and who have not claimed for any reserved category, are also eligible for admission to courses offered at all institutions under General (OPEN) category. Such candidate has to produce the domicile certificate of his/her parents (**Father OR Mother only**) at the time of counselling.

[Code: **UPGD**]

*Certificate Mo. 3 required from such candidates*

- 8.4 Candidates, who have passed the qualifying examination from an institution located outside U.P.; and whose parents are domicile of U.P.; and who belong to Schedule Caste of U.P. / Schedule Tribe of U.P. / Other Backward classes of U.P. are also eligible for admission against reserved seats of their category.

[Respective Codes: **GDSC/GDST/GDBC**]

*Such candidate has to produce the domicile certificate of his/her parents (**Father OR Mother only**) (Certificate No. 3) and Category Certificate (Certificate No. 1 or 2 as applicable) at the time of counselling.*

- 8.5 The domicile requirement to son/daughter of following is **relaxed** and admission is permitted to such:

- (i) defence personnel settled in U.P. on the date of Entrance Examination after retirement / being disabled in action or Defence personnel killed in action and the dependents settled in U.P. on the date of Entrance Examination. (*Certificate no. 5 is required.*)
- (ii) defence personnel who are not domicile of U.P., but are posted in U.P. on the date of Entrance Examination. (*Certificate no. 5 is required.*)
- (iii) employee of **All India Services** belonging to U. P. cadre. (*Certificate no. 11 is required*)

[Code: **GDDA**]

***GDDA candidates will be considered as UPGD category for all other benefits.***

- 8.6 Candidates, who have passed the qualifying examination from an institution located outside U.P. and whose parents are NOT domicile of U.P.

[Code: **OSGE**]

*No category certificate required from such candidates.*

***Such candidates, alongwith candidates of other categories, shall be considered only against 10 percent of the sanctioned intake of first year in Technology/ Architecture courses in Private Institutions affiliated to AKTU.***

- 8.7 Proformas of various certificates are available in Appendix – D.

## **9. RESERVATION OF SEATS**

- 9.1 Vertical Reservation (Category):

<b>Category</b>	<b>Percentage of Reservation</b>
(a) Scheduled Caste of U.P.	21%
(b) Scheduled Tribe of U.P.	02%
(c) Other Backward Classes of U.P.	27%



**9.2 Horizontal Reservation (Sub-category available in each category):**

<b>Sub-Category</b>	<b>Code</b>	<b>Maximum Percentage of Total Seats</b>
(a) Dependents of Freedom Fighters from U.P.	UPFF	02%
(b) Sons / Daughters of defence personnel of U.P. either retired (superannuated) or killed / disabled in action or defence personnel posted in U.P./defence personnel domicile of U.P. & posted outside U.P.	UPAF	05%
(c) Handicapped / Disabled of U.P.	UPHC	03%
(d) Girls of U.P.	UPGL	20%

**9.3** The candidates can be given only one type of horizontal reservation out of UPFF/UPAF/UPHC. **However, the girl candidates can also claim for any one of UPFF/UPAF/UPHC alongwith UPGL.**

**9.4** Subsequent request for the change of category / sub-category filled in Application Form shall not be entertained under any circumstances.

**9.5** Category / sub-category must be supported by the relevant certificates as per proforma given in the Appendix-D to be produced at the time of counselling, failing which the candidates shall be treated in General Category.

**9.6** The advantage of horizontal reservation in Armed force sub-category is available to sons/daughters of 'defence personnel of U.P. either retired (Superannuated) or killed / disabled in action and the dependents settled in U.P.' or 'the defence personnel posted in U.P.' on the date of Entrance Examination.

**9.7** Certificate no. 4, 5 and 6 are required at the time of counseling, for claiming reservations in subcategories mentioned at clause 9.2 (a), (b) and (c) respectively.

**9.8** **The seats available under Fee Waiver scheme will be notified in respective category at the time of counselling.**

**9.9** **Please note that benefits of UPGL subcategory will automatically be given to all the Female candidates.**

**10. WEIGHTAGE TO CANDIDATES FROM RURAL AREAS OF UTTAR PRADESH**

**10.1** A weightage of 3% of the total marks obtained at UPSEE-2016 will be given to such UPGE candidates for B.Tech./B.Pharm/B.Arch./BHMCT/BFAD/BFA courses, who have passed the qualifying examination from an institution situated in rural area of Uttar Pradesh.

**10.2** For this purpose, the institutions should be situated in the jurisdiction of Gram Panchayat but the area should not be industrially developed. Such candidates must produce Certificate Number 7 at the time of counselling.

**10.3** **Rural weightage is not applicable for a candidate opting any other reservation and for a candidate opting direct admission to second year.**

**10.4** **Rural weightage is not applicable for candidates under UPGD category defined in clause 8.3.**

## 11. MEDICAL STANDARDS

11.1 Candidates will have to submit a certificate of Medical fitness/ handicap on Certificate number 9 at the time of counselling.

11.2 The medical standards prescribed are given below:

### Medical Standards Applicable:

Height	Candidate should be Physically fit to pursue his/her studies in opted course.
Weight	
Chest measurement	
Heart and lungs	No abnormality
Hernia, Hydrocele, Piles etc.	Presence of any of these is to be corrected before joining.
Vision	Normal. If defective, it must be got corrected to 6/9 in the better eye and 6/12 in the worse one. Eyes should be free from congenital or any other disease.
Hearing	Normal. If defective, it must be got corrected before joining.
Physically Handicapped / Disabled	The candidate having any one type of physical handicap/ disability given below.

### Physically Handicapped / Disabled:

Type – I	Minimum 40% permanent Visual impairment
Type – II	Minimum 40% permanent Locomotors disability
Type – III	Minimum 40% permanent speech and Hearing impairment

## 12. CITY OF EXAMINATION

The UPSEE-2016 will be held at various cities as given in the following tables. The candidates are advised to give three choices of examination cities.

- (i) **Paper 1, Paper 2, Paper 3 and Paper 4** are **OMR based Tests** and shall be held in various cities given in the **Examination City Table-I**
- (ii) **Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10, Paper 11 and Paper 12** are **Computer based Tests** and shall be held in various cities given in the **Examination City Table-II**.

**Examination City Table-I  
(OMR Based Test)  
[For Paper 1, Paper 2, Paper 3 and Paper 4]**

<p><b>Cities in State of U.P.</b></p> <ol style="list-style-type: none"> <li>1. Agra</li> <li>2. Firozabad</li> <li>3. Mathura</li> <li>4. Aligarh</li> <li>5. Allahabad</li> <li>6. Azamgarh</li> <li>7. Ballia</li> <li>8. Mau</li> <li>9. Bareilly</li> <li>10. Shahjahanpur</li> <li>11. Basti</li> <li>12. Banda</li> <li>13. Gonda</li> <li>14. Ambedkar Nagar</li> <li>15. Barabanki</li> <li>16. Faizabad</li> </ol>	<ol style="list-style-type: none"> <li>17. Sultanpur</li> <li>18. Deoria</li> <li>19. Gorakhpur</li> <li>20. Kushinagar</li> <li>21. Jalaun (Orai)</li> <li>22. Jhansi</li> <li>23. Etawah</li> <li>24. Kanpur Nagar</li> <li>25. Lakhimpur Kheri</li> <li>26. Lucknow</li> <li>27. Raebareli</li> <li>28. Sitapur</li> <li>29. Bulandshahr</li> <li>30. Gautam Buddha Nagar (Noida/Greater Noida)</li> <li>31. Ghaziabad</li> <li>32. Meerut</li> </ol>	<ol style="list-style-type: none"> <li>33. Mirzapur</li> <li>34. Bijnor</li> <li>35. Moradabad</li> <li>36. Muzaffarnagar</li> <li>37. Saharanpur</li> <li>38. Ghazipur</li> <li>39. Jaunpur</li> <li>40. Varanasi</li> </ol> <p><b>Cities in Other States</b></p> <ol style="list-style-type: none"> <li>41. Bhopal</li> <li>42. Dehradun</li> <li>43. Delhi</li> <li>44. Patna</li> <li>45. Ranchi</li> <li>46. Jaipur</li> <li>47. Kolkata</li> <li>48. Mumbai</li> </ol>
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**Examination City Table-II  
(Computer Based Test)  
[For Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10, Paper 11 and Paper 12]**

<ol style="list-style-type: none"> <li>1. Agra</li> <li>2. Aligarh</li> <li>3. Allahabad</li> <li>4. Bareilly</li> <li>5. Ghaziabad</li> </ol>	<ol style="list-style-type: none"> <li>6. Gorakhpur</li> <li>7. Gautam Buddha Nagar (Noida / Greater Noida)</li> <li>8. Jhansi</li> <li>9. Kanpur</li> <li>10. Lucknow</li> </ol>	<ol style="list-style-type: none"> <li>11. Mathura</li> <li>12. Meerut</li> <li>13. Moradabad</li> <li>14. Muzaffarnagar</li> <li>15. Varanasi</li> </ol>
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**(iii) Candidates are advised to be very careful while giving their options for city of examination centre.** Candidates are advised to choose cities of examination on the basis of the paper he/she has opted from the respective tables i.e **Examination City Table-I** and/or **Examination City Table-II**.

**(iv)** In case, candidate has opted papers in such a manner that some of these papers are the OMR based Tests (**Paper 1, Paper 2, Paper 3 and Paper 4**) and some of these papers are Computer based Tests (**Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10, Paper 11 and Paper 12**), the choices for city of examination must be chosen from the **Examination City Table-II only**.

For example,

(a) If a candidate opts for **Paper 1 only**, he/she should refer to the **Examination City Table-I**.

(b) If a candidate opts for **Paper 5 only**, he/she should refer to the **Examination City Table-II**.

- (c) **If a candidate opts for two papers Paper 1 and Paper 5, he/ she should refer to the Examination City Table-II.**
- (v) If any candidate chooses cities of examination where the examination for the paper opted is not being conducted, he/she shall be allotted an examination city from the respective list and same shall be binding upon the candidate.
- (vi) Certain examination cities may be cancelled if sufficient number of candidates does not opt for that city. Request for change of city of examination shall not be entertained under any circumstances.
- (vii) List of Cities of Examination for OMR based Test as well as Computer based Test is given in Appendix-E also.

### **13. ADMIT CARD**

- 13.1 Admit card will be available online on the website <http://www.upsee.nic.in> to every candidate. **Downloaded admit card shall be treated as valid admit card.** The candidates are advised to check the details of admit cards with regards to their category, sub-category, gender, rural weightage, Name, Father's Name etc. as mentioned on the Admit Card.
- 13.2 No candidate will be allowed to appear in the examination without admit card.
- 13.3 If any candidate is unable to download his/her admit card, he/she should contact the helpline as indicated on the website <http://www.upsee.nic.in> or send an email to the mail address [helpdesk.upsee2016@gmail.com](mailto:helpdesk.upsee2016@gmail.com) latest by 14<sup>th</sup> April, 2016.
- 13.4 A plea that a candidate failed to receive the information for appearing at the Examination will not be accepted as a ground for the refund of fee or any other redressal. UPSEE-2016 may withdraw the permission to appear in UPSEE-2016 granted by mistake to a candidate who is not eligible to appear at the UPSEE-2016 even if an Admit Card has been issued and produced by the candidate before the concerned Centre Superintendent at the Examination Centre.
- 13.5 In case of any reported correction, the final corrected admit card will have to be downloaded from website <http://www.upsee.nic.in> or <http://www.aktu.ac.in> before the examination date.
- 13.6 **Since successful candidates are required to produce the Admit Card at the time of counselling and admission, it should be carefully preserved until the admission process is completed.**

### **14. MEDIUM AND MODE OF EXAMINATION & EVALUATION**

All question papers (except part B of paper-4) will carry objective multiple-choice questions. Answers of Paper 1, paper 2, Paper 3 and paper 4 will be evaluated by OMR methodology. All question papers for undergraduate admissions (except paper-4) will be in Hindi and English both, but in case of any ambiguity, the English version shall be considered final. The candidates appearing in the UPSEE-2016 have the option to answer part B of Paper-4 either in English or in Hindi. In all cases, the Standard English numerals must be used.

### **15. COUNSELLING**

- 15.1 Successful candidates will be required to participate in the counseling process. The information about Counseling procedure, Counselling Schedule and all relevant information regarding counselling etc., will be notified on the website: <http://www.aktu.ac.in> or <http://www.upsee.nic.in>.

## 16. EXAMINATION FEE

The examination fee for the On-Line Application is as follows:

For Male / Transgender Candidates of General/ OBC Category	For SC/ST Category and Female Candidates/ Physically Handicapped Candidates of All the category
Rs. 1000/-	Rs. 500/-

The examination fee has to be submitted On-Line through Credit/debit Card/ Net Banking while submitting the On-Line Application. Please note that the bank may additionally charge service charges plus applicable taxes while making the payment through Credit/Debit card/ Net banking.

## 17. TUITION FEES

- 17.1** The tuition fees in Govt. / Govt. aided colleges / institutes shall be as per latest orders of Government of U.P applicable in the respective colleges/institutes. However, few courses are under self finance scheme and the details of the fee for such courses can be obtained by respective colleges/institutions. However, information about amount of the hostel and other fee can be obtained from the institute.
- 17.2** The fees in Private Institutions / Govt. aided Institutions running self finance courses will be as per the latest notification/orders issued by Govt. of Uttar Pradesh/ Fee Fixation Committee and same is available on website <http://www.afrcup.in>.

## 18. LAST DATE OF SUBMISSION OF ON-LINE APPLICATION FORM

Application Form for UPSEE-2016 can be submitted On-Line only through website <http://www.upsee.nic.in> from **24<sup>th</sup> February 2016, 11:00 AM**. The Last Date of filling and submitting the On-Line Application Form is **27<sup>th</sup> March 2016, 05:00 PM**.

## **HOW TO FILL ON-LINE APPLICATION FORM ( UG & PG COURSES)**

The On-Line application to UPSEE-2016 can be filled and submitted as per clause 18, clause 19, clause 20 and clause 21 of the Information Brochure as given below.

### **19 . AVAILIBILITY OF INFORMATION BROCHURE**

The Information Brochure will be available ON LINE on the websites <http://www.upsee.nic.in> only. The same can be downloaded and/or printed for reference by the candidates. The application form can be filled in On-Line through Internet from any place of convenience.

### **20. HOW TO FILL AND SUBMIT THE ON-LINE APPLICATION FORM**

#### **20.1 APPLICATION PROCEDURE**

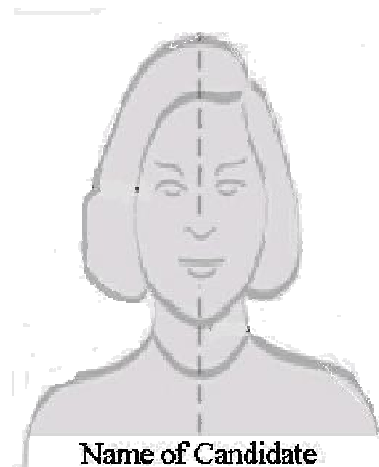
The online application can be made from 11:00 AM, 24<sup>th</sup> Feb 2016 till 05:00 PM of 27<sup>th</sup> March 2016 through the website <http://www.upsee.nic.in>. The On-Line Application Form is self explanatory. For assistance, in case of any difficulty in filling up ON-LINE application form, candidate may contact at Toll Free Number 1800-180-0161 or send an email at [helpdesk.upsee2016@gmail.com](mailto:helpdesk.upsee2016@gmail.com) with subject line "Seeking Help".

#### **20.2 The On-Line application form submission consists of following three simple steps.**

- (i)** Registration (Filling up of Personal and other Details)
- (ii)** Uploading of Scanned Images of Photograph, Signature and Thumb Impression
- (iii)** Payment of Examination Fee and Printing of the "Confirmation Page"

**20.3 Before, a candidate starts filling the On-Line application Form, he/she must be ready with the following:**

- (i) A personal mobile phone number and/or a personal E-Mail id.
- (ii) **Photograph:** A clear scanned image of his/her recent color passport size photograph **(3.5cm X 4.5cm)** in **JPEG** Format with a maximum size of **100 KB**. The photograph must be front facing to the camera in a manner that full face shows. The background should be either white or off-white and uncluttered. The photograph should be colour with name of the candidate printed on it as shown in the sketch below. It should be without cap or goggles. Spectacles are allowed. Candidates with unclear photograph are liable to be rejected. Candidates may keep 6-8 identical photographs in reserve for use at the time of entrance examination.



- (iii) A clear scanned image of his/her signature **(3.5cm X 1.5cm)** in **JPEG** Format with a maximum size of **30 KB**.
- (iv) A clear scanned image of his/her left thumb impression **(3.5cm X 1.5cm)** in **JPEG** Format with a maximum size of **30 KB**

**20.4** Once ready with this, he/she may proceed to following steps. Visit the website <http://www.upsee.nic.in> (Please use the browser Internet Explorer 7 or above)

and choose the appropriate link as follows for filling up the application form.

- (i) Follow the link "**UP State Entrance Examination for UG (UPSEE-2016)**" for filling the application form for admission to Under Graduate programmes: B.Tech./ B.Pharm/BHMCT/BFAD/BFA/ Direct admission to 2<sup>nd</sup> year of B.Tech./ B.Pharm and
- (ii) Follow the link "**UP State Entrance Examination for PG (UPSEE-2016)**" for filling the application form for admission to PG programmes : MBA/MCA/MAM(Dual Degree) and Direct admission to 2<sup>nd</sup> year of MCA.

You may now start filling the application by clicking the link "***Apply***" at the bottom of the page. A new screen containing the Instructions and Procedure for online submission of Application Form appears. Read this page carefully and thereafter follow the link "**Click here to proceed**" at the bottom of the page which takes you to the ON-Line Application Form. Now start filling the Application Form.

### **Step1: Registration and Filling up of Personal, Educational and other Details**

- (1) The On-Line Application Form is self explanatory. You are required to fill up all the personal details such as Name, Father's Name, Mother's Name, Domicile of your parent, state from where you have passed or appearing in the qualifying examination, Communication details such as address, mobile phone number, email etc., Course Apply details such as qualifying examination detail, subjects in the qualifying examination etc. You are also required to choose paper as per eligibility, choice of city for examination centre etc during the filling of the online application form.
- (2) After filling these details, you are required to choose "**Password**" and security question. You are required to remember this "**Password**" till the examination is



over. **Please note that this Password alongwith Application Number generated by the system will be required in future in order to login into the system again.** You are advised not to share this password with anyone.

- (3) For making changes in the Application Form, you may click the **"EDIT"** Button at the bottom as many times as you want.
- (4) **After completion of the Application Form, you may submit the application form by clicking "SUBMIT" Button. Once you click "SUBMIT" Button, a Review page showing all the crucial information filled by you appears on the screen. Now, check all the information on the Review Page. If you want to change/ modify some of the information provided in the Application Form, click the "EDIT APPLICATION FORM DATA" Button and modify the entries in Application Form as desired and "SUBMIT". You can repeat this process as many times as you want.**
- (5) **Once you are satisfied with all the entries and want to submit the Application Form, click the "FINAL SUBMIT" Button. Please note that once you submit the application form by clicking the "FINAL SUBMIT" Button, the On-Line Application Form is finally submitted and you will not be able to modify/change/edit the entries of your Application Form. Therefore, you are advised to click "FINAL SUBMIT" Button only when you are completely satisfied with entries on the application form, part of which has been shown on the "Review Page".**
- (6) Before **"FINAL SUBMIT" Button**, you will notice a Declaration at the bottom. Please read the declaration and accept the declaration by ticking the check box named "I agree" . Unless you accept the declaration by ticking the given check box, you will not be able to submit the form.
- (7) After Final Submission of the Application Form, Step 1 is completed and an

**Application Number** is generated by the system. **You are required to note this APPLICATION NUMBER for all future correspondences and in order to be able to Login again.**

- (8) Now you may proceed with Step 2. If you wish to complete the step 2 at later time, please Logout. Therafter, Login again with your APPLICATION NUMBER and PASSWORD at a convenient time and complete the Step 2.**

## **Step 2: Uploading of Scanned Images of Photograph, Signature and Left Hand Thumb Impression**

- (9)** Once Step 1 is complete, then you may proceed now with Step 2 for uploading of the scanned images.
- (i)** Upload a clear scanned image of his/her recent passport size color photograph (3.5cm X 4.5cm) in JPEG Format with a maximum size of 100 KB. The photograph must be front facing to the camera in a manner that full face shows. The background should be either white or off-white and uncluttered.
  - (ii)** Upload a clear scanned image of his/her signature (3.5cm X 1.5cm) in JPEG Format with a maximum size of 30 KB.
  - (iii)** Upload a clear scanned image of his/her left thumb impression (3.5cm X 1.5cm) in JPEG Format with a maximum size of 30 KB
- (10) Please check/review that images which have been uploaded are clear and correct before pressing the "SAVE" Button. Once "SAVE" Button is pressed, you will not be able to change the images. Therefore, before pressing the "SAVE" Button, make it doubly sure that uploaded images are correct and clear. If images that have been uploaded are not proper or appears blurred, then you must upload a proper and clear image(s) again. Please note that an Application Form with blurred photograph, thumb impresseion or signature is liable to be rejected.**

(11) Once you are satisfied with uploaded images, then you may press the "SAVE" Button. Once "SAVE" Button is pressed, images are finally uploaded and now you will not be able to change the image(s).

(12) You may now proceed with Step 3 for making payment of examination fee. **If you wish to complete the Step 3 at a later time, please logout. Thereafter, Login again with your APPLICATION NUMBER and PASSWORD at a convenient time and complete the step 3.**

### **Step 3: Payment of Examination Fee through Credit Card / Debit Card/ Netbanking and Downloading of "Confirmation Page"**

After completion of Step 1 and Step 2, applicant may proceed with Step 3 for payment of Examination Fee. The examination fee can be paid On-Line ONLY through **Credit Card / Debit Card / Net Banking.**

(13) For making payment through Credit Card / Debit Card / Netbanking, choose appropriate "**Mode of Payment**" and click the link "**Proceed for Payment**" to make the payment of examination fee. All VISA/Master cards are accepted. You should be ready with your Credit Card/ Debit Card/Net Banking details. Please note that, in addition to the examination fee, bank may charge extra amount as service charge and/or taxes as applicable.

(14) After making payment, a payment **Transaction Number** is generated. **You are required to note this Transaction Number for future correspondences.**

(15) **If the payment is successful, a link appears on the screen/page named "Download Confirmation Page". You must download this "Confirmation**

**Page” by clicking this link and save the “Confirmation Page” for record. You are also advised to take two copies of print-outs of this “Confirmation page” and keep them preserved for record and future communication. Now your application form is complete. You may log out. Please note that this “Confirmation Page” is not required to be sent to the University / UPSEE-2016 office. Your “Application Number” is also printed on this “Confirmation Page”.**

**(16)** Please note that you can view your Application Form later also. For this, you are required to Login again at the website <http://www.upsee.nic.in> using **your Application Number and Password**. Although, you will not be able to edit/modify your application Form.

**(17) Failed Transaction:** In case, your transaction is failed for some reason, whatsoever, then you will not be able to download the “Confirmation Page”. If you are unable to download the “Confirmation page” and your account is debited, it means that transaction could not be updated at NIC server of UPSEE-2016. In case, you do not succeed to download the “Confirmation page”, it indicates that your transaction has failed and you are required to make the Payment of Examination Fee again and download the confirmation page as explained in Point No. (13) to Point No. (16) above.

**(18)** However, the amount of Examination Fee against the failed transactions, which could not be updated on NIC Server of UPSEE-2016, shall be automatically refunded by the Bank after Reconciliation and shall be credited to the account from which the payment was made using your debit card/ credit card / Net Banking. In case, amount debited against the failed transaction is not refunded to your account within FIVE DAYS, you may send an email as follows.

**To** : [helpdesk.upsee2016@gmail.com](mailto:helpdesk.upsee2016@gmail.com)

**Subject:** Failed Transaction

Please do not forget to mention the following in your mail.

- A) Your Application Number,**
- B) Transaction Number, and**
- C) Date of Birth**

**(19)** Please do not send the hard copy / soft copy / print-out of the Confirmation page or any other document to the University at this stage.

**(20)** In case of any difficulty in filling up the On-Line Application Form, you may contact UPSEE -2016 **Helpdesk** at **Toll Free Number: 1800-180-0161** between 10:00 AM to 05:00 PM or send an email to [helpdesk.upsee2016@gmail.com](mailto:helpdesk.upsee2016@gmail.com) with *subject line : Seeking Help.*

## **21. KEY ELEMENTS OF ON-LINE APPLICATION FORM**

Read carefully the entire Information Brochure before filling the On-Line Application Form. The On-Line Application Form is self explanatory. Following are the key elements of the Application Form which will appear in the application (not necessarily in the order).

- (1) Name of the Candidate:** Write your FULL NAME (in English Capital Letters) as recorded in your High School or equivalent examination certificate
- (2) Father's Name:** Write FULL NAME (in English Capital Letters).
- (3) Mother's Name:** Write FULL NAME (in English Capital Letters).
- (4) Date of Birth:** Fill your date of birth exactly as recorded in your High School or equivalent examination certificate in dd/mm/yyyy format.
- (5) Nationality:** Choose "INDIAN" if your Nationality is Indian otherwise choose "OTHERS"
- (6) Gender:** Choose Male or Female or Third Gender (Transgender) whichever is applicable.
- (7) Parent's Domicile:** Choose "Uther Pradesh" if at least one of your parents

(Father/Mother) is domicile of U.P., Choose "Other than Uttar Pradesh" if none of your parents is domicile of U.P. and choose "GDDA" if belongs to clause 8.5 of Information Brochure.

**(8) Address for Communication:** Write your complete mailing address with pin code in CAPITAL LETTERS for postal communication.

**Contact Mobile Phone Number:** Write your mobile number. This mobile number will be used for communication with you during examination/admission process.

**E-Mail address:** Write your E-Mail address. This mail address will be used for communication with you during examination/admission process.

**(9) Qualifying Examination Details:**

**(a) Examination:** Choose appropriate option(s) whether you have passed or are appearing in Intermediate (10+2)/ Diploma in Engg./Diploma in Pharmacy/ Diploma in Agriculture Engg./Diploma in Architecture/Graduate

**(b) Qualifying Examination Passed/ Appearing from college situated in :**  
Choose "Uttar Pradesh" if you have passed or are appearing in qualifying examination from UP otherwise choose "Other than Uttar Pradesh".

**(c) Year of Passing / Appearing:** Write year of passing or appearing, whichever is applicable, the qualifying examination.

**(10) Subjects in Qualifying Examination:** Choose the subject group in which you have passed / are appearing in, Qualifying Examination.

**(11) Choice of City of Centre for Entrance Examination in order of preference:** Indicate three distinct choices for city of examination from where you wish to appear in UPSEE 2016. Refer to Clause 12 or Appendix-E of the Information Brochure for city of examination.

**(12) Category:** Choose applicable category whether you are a candidate of UPGE, UPSC, UPST, UPBC, UPGD, GDSC, GDST, GDBC, GDDA, OSGE. . Refer to Clause 8.1 to 8.6 of this Information Brochure

- (13) **Sub-Category:** Choose suitable subcategory depending upon whether you belong to sub-category UPFF, UPAF or UPHC otherwise choose "Not Applicable" if you do not belong to any of these sub-categories. Refer to Clause 9.2 to 9.9 of this Information Brochure.
- (14) **Rural Weightage Claimed:** Choose "YES" if you are eligible for and want to claim rural Weightage otherwise choose "NO". Refer to clause 10 of Information Brochure for rural weightage eligibility.
- (15) **Seeking Admission For:** Choose appropriate option First Year for UG or 2<sup>nd</sup> Year (Lateral Entry) or First Year for PG. Please note that this choice is linked with your qualification and subjects in the qualifying examination. Please refer to clause 3 & 4 of the Information Brochure.
- (16) **Course(s) APPLIED FOR:** Choose appropriate course name(s) to which you are seeking admission.
- (17) **Papers in which you wish to appear in UPSEE-2016:** Choose appropriate paper(s) in which you wish to appear. Refer Clause 4 of the Information Brochure.
- (18) **Photograph:** Upload scanned image of your recent 3.5 cm x 4.5 cm color photograph in JPEG format. The photograph which are not clear will be considered as an attempt of the act of impersonation and application form is liable to be rejected.
- (19) **Signature:** Upload scanned image of your signature in JPEG format.
- (20) **Left Thumb Impression:** Upload scanned image of your Left Thumb Impression in JPEG format.
- (21) **Declaration:** Read the declaration and accept the declaration by ticking the check box named "I agree" provided. Unless you accept the declaration by ticking the given check box, you will not be able to submit the form.
- (22) **Mode of Payment:** Choose the appropriate mode (Credit Card / Debit Card / Net Banking) of making payment of the prescribed examination fee and make

the payment. Please note that in addition to the examination fee, bank may charge additional amount as service charge and taxes as applicable on the transaction.

**(23) Fee Amount in Rupees:** Examination fee is Rs 1000.00 for Male/ Transgender candidates of General/OBC Category and Rs 500.00 for SC/ST candidates and female candidates / physically handicapped candidates of all categories. Please refer to Clause 16 of the Information Brochure.



**SYLLABI FOR UPSEE-2016**  
**PAPER – 1 (PHYSICS, CHEMISTRY & MATHEMATICS)**

**Section A, PHYSICS**

**Measurement:** Dimensional analysis and error estimation, dimensional compatibility and significant figures.

**Motion in one dimension:** Average velocity, instantaneous velocity, one-dimensional motion with constant accelerations, freely falling bodies.

**Laws of Motion:** Force and inertia, Newton's laws of motion, and their significance.

**Motion in two dimensions:** Projectile motion, uniform circular motion, tangential and radial acceleration in curve-linear motion, relative motion and relative acceleration.

**Work, Power and Energy:** Work done by a constant and variable forces, kinetic and potential energy, power, Conservative and non conservative forces, conservation of energy, gravitational energy, work energy theorem, potential energy stored in a spring.

**Linear Momentum & collisions:** Linear momentum & impulse, conservation of linear momentum for two particle system, collisions, collision in one dimension, collision in two dimension, rocket propulsion.

**Rotation of a rigid body about a fixed axis:** Angular velocity and angular acceleration, rotational kinematics, rotational motion with constant angular acceleration relationship between angular and linear quantities, rotational energy, moment of inertia for a ring, rod, spherical shell, sphere and plane lamina, torque and angular acceleration, work and energy in rotational motion, rolling motion of a solid sphere and cylinder.

**Gravitation:** Gravitational field, Kepler's laws and motion of planets, planetary and satellite motion, geostationary satellite.

**Oscillatory motion:** Harmonic motion, oscillatory motion of mass attached to a spring, kinetic & potential energy, Time Period of a simple pendulum, comparing simple and harmonic motion with uniform circular motion, forced oscillations, damped oscillations and resonance.

**Mechanics of solids and fluids:** States of matter young's modulus, bulk modulus, shear modulus of rigidity, variations of pressure with depth, Buoyant forces and Archimedes principle, Pascal's law, Bernoulli's theorem and its application, surface energy, surface tension, angle of contact, capillary rise, coefficient of viscosity, viscous force, terminal velocity, Stoke's law, stream line motion, Reynold's numbers.

**Heat and thermodynamics:** First law of thermodynamics, specific heat of an ideal gas at constant volume and constant pressure, relation between them, thermodynamics process (reversible, irreversible, isothermal, adiabatic), second law of thermodynamics, concept of entropy and concept of absolute scale, efficiency of a Carnot engine, thermal conductivity, Newton's law of cooling, black body radiation, Wien's displacement law, Stefan's law.

**Wave:** Wave motion, phase, amplitude and velocity of wave, newton's formula for longitudinal waves, propagation of sound waves in air, effect of temperature and pressure on velocity of sound, Laplace's

correction, Principle of superposition, formation of standing waves, standing waves in strings and pipes, beats, Doppler's effect.

**Electrostatics:** Coulomb's law, electric field and potential due to point charge, dipole and its field along the axis and perpendicular to axis, electric flux, Gauss's theorem and its applications to find the field due to infinite sheet of charge, and inside the hollow conducting sphere, capacitance, parallel plate capacitor with air and dielectric medium between the Plates, series and parallel combination of capacitors, energy of a capacitor, displacement currents.

**Current Electricity:** Concept of free and bound electrons, drift velocity and mobility, electric current, Ohm's law, resistivity, conductivity, temperature dependency of resistance, resistance in series and parallel combination, Kirchoff's law and their application to network of resistances, principle of potentiometer, effect of temperature on resistance and its application.

**Magnetic Effect of Current:** Magnetic field due to current, Biot-Savart's law, magnetic field due to solenoid, motion of charge in a magnetic field, force on a current carrying conductors and torque on current loop in a magnetic field, magnetic flux, forces between two parallel current carrying conductors, moving coil galvanometer and its conversion into ammeter and voltmeter.

**Magnetism in Matter:** The magnetization of substance due to orbital and spin motions of electrons, magnetic moment of atoms, diamagnetism, paramagnetism, ferromagnetism, earth's magnetic field and its components and their measurement.

**Electromagnetic induction:** Induced e.m.f., Faraday's laws, Lenz's law, electromagnetic induction, self and mutual induction, B-H curve, hysteresis loss and its importance, eddy currents.

**Ray Optics and optical instruments:** Sources of light, luminous intensity, luminous flux, illuminance, photometry, wave nature of light, Huygen's theory for propagation of light and rectilinear propagation of light, reflection of light, total internal reflection, reflection and refraction at spherical surfaces, focal length of a combination of lenses, spherical and chromatic aberration and their removal, refraction and dispersion of light due to a prism, simple and compound microscope, reflecting and refracting telescope, magnifying power and resolving power.

**Wave Optics:** Coherent and incoherent sources of light, interference, young's double slit experiment diffraction due to a single slit, linearly polarized light, Polaroid.

**Modern Physics:** Photo-electric equation, matter waves, quantization, Planck's hypothesis, Bohr's model of hydrogen atom and its spectra, ionisation potential, Rydberg constant, solar spectrum and Fraunhofer lines, fluorescence and phosphorescence, X-Rays and their productions, characteristic and continuous spectra.

Nuclear Instability, radioactive decay laws, Emission of  $\alpha$ ,  $\beta$ ,  $\gamma$  rays, Mass - defect, Mass Energy equivalence, Nuclear Fission Nuclear Reactors, Nuclear Fusion.

Classification of conductors, Insulators and semiconductors on the basis of energy bands in solids, PN junction, PN Diode, junction Transistors, Transistor as an amplifier and Oscillator.

Principles of Logic Gates ( AND, OR and NOT ) Analog Vs Digital communication, Difference between Radio and television, Signal propagation, Principle of LASER and MASER, Population Inversion, Spontaneous and stimulated Emission.

## **Section B, CHEMISTRY**

**Atomic Structure:** Bohr's concept. Quantum numbers, Electronic configuration, molecular orbital theory for homonuclear molecules, Pauli's exclusion principle.

**Chemical Bonding:** Electrovalency, co-valency, hybridization involving s,p and d orbitals hydrogen bonding.

**Redox Reactions:** Oxidation number, oxidising and reducing agents, balancing of equations.

**Chemical Equilibrium and Kinetics:** Equilibrium constant (for gaseous system only) Le Chaterlier's principle, ionic equilibrium, Ostwald's dilution law, hydrolysis, pH and buffer solution, solubility product, common-ion effect, rate constant and first order reaction.

**Acid - Base Concepts:** Bronsted Lowry & Lewis.

**Electrochemistry:** Electrode potential and electro-chemical series.

**Catalysis:** Types and applications.

**Colloids:** Types and preparation, Brownian movement, Tyndall effect, coagulation and peptization.

**Colligative Properties of Solution:** Lowering of vapour pressure, Osmotic pressure, depression of freezing point, elevation of boiling point, determination of molecular weight.

**Periodic Table:** Classification of elements on the basis of electronic configuration, properties of s,p and d block elements, ionization potential, electronegativity & electron affinity.

**Preparation and Properties of the following:** Hydrogen peroxide. copper sulphate, silver nitrate, plaster of paris, borax, Mohr's salt, alums, white and red lead, microcosmic salt and bleaching powder, sodium thiosulphate.

**Thermochemistry:** Exothermic & endothermic reactions Heat of reaction, Heat of combustion & formation, neutralisation, Hess's law.

**General Organic Chemistry:** Shape of organic compounds, Inductive effect, mesomeric effect, electrophiles & nucleophiles, Reaction intermediates: carboniumion, carbanions & free radical, Types of organic reactions, Cannizzaro Friedel Craft, Perkin, Aldol condensation.

**Isomerism:** Structural, Geometrical & Optical

**IUPAC:** Nomenclature of simple organic compounds.

**Polymers:** Addition & condensation polymers

**Carbohydrates:** Monosaccharides.

**Preparation and Properties Of the Followings:** Hydrocarbons, monohydric alcohols, aldehydes, ketones, monocarboxylic acids, primary amines, benzene, nitrobenzene, aniline, phenol, benzaldehyde, benzoic acid, Grignard Reagent.

**Solid State:** Structure of simple ionic compounds, Crystal imperfections (point defects only), Born-Haber cycle

**Petroleum:** Important industrial fractions, cracking, octane number, anti knocking compounds.

## **Section C, MATHEMATICS**

**Algebra:** Sets relations & functions, De-Morgan's Law, Mapping Inverse relations, Equivalence relations, Peano's axioms, Definition of rationals and integers through equivalence relation, Indices and surds, Solutions of simultaneous and quadratic equations, A.P., G.P. and H.P., Special sums i.e.  $\sum n^2$  and  $\sum n^3$  ( $n \in \mathbb{N}$ ), Partial fraction, Binomial theorem for any index, exponential series, Logarithm and Logarithmic

series. Determinants and their use in solving simultaneous linear equations, Matrices, Algebra of matrices, Inverse of a matrix, Use of matrix for solving equations.

**Probability:** Definition, Dependent and independent events, Numerical problem on addition and multiplication, theorem of probability.

**Trigonometry:** Identities, Trigonometric equations, properties of triangles, solution of triangles, heights and distances, Inverse function, Complex numbers and their properties, Cube roots of unity, De-Moivre's theorem.

**Co-ordinate Geometry:** Pair of straight lines, Circles, General equation of second degree, parabola, ellipse and hyperbola, tracing of conics.

**Calculus:** Limits & continuity of functions, Differentiation of function of function, tangents & normal, Simple examples of Maxima & Minima, Indeterminate forms, Integration of function by parts, by substitution and by partial fraction, definite integral, application to volumes and surfaces of frustums of sphere, cone and cylinder. Differential equations of first order and of first degree.

**Vectors :** Algebra of vectors, scalar and vector products of two and three vectors and their applications.

**Dynamics :** Velocity, composition of velocity, relative velocity, acceleration, composition of accelerations, Motion under gravity, Projectiles, Laws of motion, Principles of conservation of momentum and energy, direct impact of smooth bodies.

**Statics:** Composition of coplanar, concurrent and parallel forces moments and couples resultant of set of coplanar forces and condition of equilibrium, determination of centroid in simple cases, Problems involving friction.

## **PAPER – 2 (PHYSICS, CHEMISTRY & BIOLOGY)**

### **Section A, PHYSICS**

**Measurement:** Dimensional analysis and error estimation, dimensional compatibility and significant figures.

**Motion in one dimension:** Average velocity, instantaneous velocity, one-dimensional motion with constant accelerations, freely falling bodies.

**Laws of Motion:** Force and inertia, Newton's laws of motion, and their significance.

**Motion in two dimensions:** Projectile motion, uniform circular motion, tangential and radial acceleration in curve-linear motion, relative motion and relative acceleration.

**Work, Power and Energy:** Work done by a constant and variable forces, kinetic and potential energy, power, Conservative and non conservative forces, conservation of energy, gravitational energy, work energy theorem, potential energy stored in a spring.

**Linear Momentum & collisions:** Linear momentum & impulse, conservation of linear momentum for two particle system, collisions, collision in one dimension, collision in two dimension, rocket propulsion.

**Rotation of a rigid body about a fixed axis:** Angular velocity and angular acceleration, rotational kinematics, rotational motion with constant angular acceleration relationship between angular and linear quantities, rotational energy, moment of inertia for a ring, rod, spherical shell, sphere and plane lamina, torque and angular acceleration, work and energy in rotational motion, rolling motion of a solid sphere and cylinder.

**Gravitation:** Gravitational field, Kepler's laws and motion of planets, planetary and satellite motion, geostationary satellite.

**Oscillatory motion:** Harmonic motion, oscillatory motion of mass attached to a spring, kinetic & potential energy, Time Period of a simple pendulum, comparing simple and harmonic motion with uniform circular motion, forced oscillations, damped oscillations and resonance.

**Mechanics of solids and fluids:** States of matter young's modulus, bulk modulus, shear modulus of rigidity, variations of pressure with depth, Buoyant forces and Archimedes principle, Pascal's law, Bernoulli's theorem and its application, surface energy, surface tension, angle of contact, capillary rise, coefficient of viscosity, viscous force, terminal velocity, Stoke's law, stream line motion, Reynold's numbers.

**Heat and thermodynamics:** First law of thermodynamics, specific heat of an ideal gas at constant volume and constant pressure, relation between them, thermodynamics process (reversible, irreversible, isothermal, adiabatic), second law of thermodynamics, concept of entropy and concept of absolute scale, efficiency of a Carnot engine, thermal conductivity, Newton's law of cooling, black body radiation, Wien's displacement law, Stefan's law.

**Wave:** Wave motion, phase, amplitude and velocity of wave, newton's formula for longitudinal waves, propagation of sound waves in air, effect of temperature and pressure on velocity of sound, Laplace's correction, Principle of superposition, formation of standing waves, standing waves in strings and pipes, beats, Doppler's effect.

**Electrostatics:** Coulomb's law, electric field and potential due to point charge, dipole and its field along the axis and perpendicular to axis, electric flux, Gauss's theorem and its applications to find the field due to infinite sheet of charge, and inside the hollow conducting sphere, capacitance, parallel plate capacitor with air and dielectric medium between the Plates, series and parallel combination of capacitors, energy of a capacitor, displacement currents.

**Current Electricity:** Concept of free and bound electrons, drift velocity and mobility, electric current, Ohm's law, resistivity, conductivity, temperature dependency of resistance, resistance in series and parallel combination, Kirchoff's law and their application to network of resistances, principle of potentiometer, effect of temperature on resistance and its application.

**Magnetic Effect of Current:** Magnetic field due to current, Biot-Savart's law, magnetic field due to solenoid, motion of charge in a magnetic field, force on a current carrying conductors and torque on current loop in a magnetic field, magnetic flux, forces between two parallel current carrying conductors, moving coil galvanometer and its conversion into ammeter and voltmeter.

**Magnetism in Matter:** The magnetization of substance due to orbital and spin motions of electrons, magnetic moment of atoms, diamagnetism, paramagnetism, ferromagnetism, earth's magnetic field and its components and their measurement.

**Electromagnetic induction:** Induced e.m.f., Faraday's laws, Lenz's law, electromagnetic induction, self and mutual induction, B-H curve, hysteresis loss and its importance, eddy currents.

**Ray Optics and optical instruments:** Sources of light, luminous intensity, luminous flux, illuminance, photometry, wave nature of light, Huygen's theory for propagation of light and rectilinear propagation of light, reflection of light, total internal reflection, reflection and refraction at spherical surfaces, focal

length of a combination of lenses, spherical and chromatic aberration and their removal, refraction and dispersion of light due to a prism, simple and compound microscope, reflecting and refracting telescope, magnifying power and resolving power.

**Wave Optics:** Coherent and incoherent sources of light, interference, young's double slit experiment diffraction due to a single slit, linearly polarized light, Polaroid.

**Modern Physics:** Photo-electric equation, matter waves, quantization, Planck's hypothesis, Bohr's model of hydrogen atom and its spectra, ionisation potential, Rydberg constant, solar spectrum and Fraunhofer lines, fluorescence and phosphorescence, X-Rays and their productions, characteristic and continuous spectra.

Nuclear Instability, radioactive decay laws, Emission of  $\alpha$ ,  $\beta$ ,  $\gamma$  rays, Mass - defect, Mass Energy equivalence, Nuclear Fission Nuclear Reactors, Nuclear Fusion.

Classification of conductors, Insulators and semiconductors on the basis of energy bands in solids, PN junction, PN Diode, junction Transistors, Transistor as an amplifier and Oscillator.

Principles of Logic Gates ( AND, OR and NOT ) Analog Vs Digital communication, Difference between Radio and television, Signal propagation, Principle of LASER and MASER, Population Inversion, Spontaneous and stimulated Emission.

## **Section B, CHEMISTRY**

**Atomic Structure:** Bohr's concept. Quantum numbers, Electronic configuration, molecular orbital theory for homonuclear molecules, Pauli's exclusion principle.

**Chemical Bonding:** Electrovalency, co-valency, hybridization involving s,p and d orbitals hydrogen bonding.

**Redox Reactions:** Oxidation number, oxidising and reducing agents, balancing of equations.

**Chemical Equilibrium and Kinetics:** Equilibrium constant (for gaseous system only) Le Chaterlier's principle, ionic equilibrium, Ostwald's dilution law, hydrolysis, pH and buffer solution, solubility product, common-ion effect, rate constant and first order reaction.

**Acid - Base Concepts:** Bronsted Lowry & Lewis.

**Electrochemistry:** Electrode potential and electro-chemical series.

**Catalysis:** Types and applications.

**Colloids:** Types and preparation, Brownian movement, Tyndall effect, coagulation and peptization.

**Colligative Properties of Solution:** Lowering of vapour pressure, Osmotic pressure, depression of freezing point, elevation of boiling point, determination of molecular weight.

**Periodic Table:** Classification of elements on the basis of electronic configuration, properties of s,p and d block elements, ionization potential, electronegativity & electron affinity.

**Preparation and Properties of the following:** Hydrogen peroxide. copper sulphate, silver nitrate, plaster of paris, borax, Mohr's salt, alums, white and red lead, microcosmic salt and bleaching powder, sodium thiosulphate.

**Thermochemistry:** Exothermic & endothermic reactions Heat of reaction, Heat of combustion & formation, neutralisation, Hess's law.

**General Organic Chemistry:** Shape of organic compounds, Inductive effect, mesomeric effect, electrophiles & nucleophiles, Reaction intermediates: carboniumion, carbanions & free radical, Types of organic reactions, Cannizzaro Friedel Craft, Perkin, Aldol condensation.

**Isomerism:** Structural, Geometrical & Optical

**IUPAC:** Nomenclature of simple organic compounds.

**Polymers:** Addition & condensation polymers

**Carbohydrates:** Monosaccharides.

**Preparation and Properties Of the Followings:** Hydrocarbons, monohydric alcohols, aldehydes, ketones, monocarboxylic acids, primary amines, benzene, nitrobenzene, aniline, phenol, benzaldehyde, benzoic acid, Grignard Reagent.

**Solid State:** Structure of simple ionic compounds, Crystal imperfections (point defects only), Born-Haber cycle

**Petroleum:** Important industrial fractions, cracking, octane number, anti knocking compounds.

## **Section C, BIOLOGY**

### **Zoology**

**Origin of Life:** Oparin's theory, Miller's Experiment, Viruses - structure, properties, distribution, classification and pathogenesis (Eg. AIDS, CANCER), Viroids & Prions, Biotic balance.

**Organic Evolution:** Relationship among organisms and Evidences of organic Evolution - Principles of Evolution - Lamarkism, Darwinism and Speciation.

**Mechanism of Organic Evolution:** Variations - Definition, causes and types, Mutations (Principles of Hugo de'veries), Role of mutations in speciation. Evolution through ages and human evolution

**Human Genetics and Eugenics:** Human hereditary traits, study of Twins, A.B.O. blood groups and their inheritance, Rh-factor, Sex determination. Chromosomal aberrations, Important human syndromes, Sex linked characters and their inheritance, Applied Genetics - eugenics, euthenics, euphenics & I.Q. Test.

**Applied Biology:** Wild life of India - Endangered species: Biosphere Reserves, National Parks and sanctuaries, Project Tiger, Conservation of wild life, Bio-energy, Poultry, Fisheries (edible fishes), Human Population, Population explosion, problems & control. Test - Tube babies, & Amniocentasis, Application of Biotechnology in human welfare. Human Aging.

**Mammalian Anatomy (Eg. Rabbit):** Reproductive system (excluding embryonic development) Osteology, structure and organization of different systems.

### **Animal Physiology:**

(A) *Animal Nutrition:* Food, Balanced diet, Nutritional imbalances and deficiency diseases, Digestion, Absorption, Assimilation of food, (comparison between human and Rabbit).

(B) *Animal Excretion and Osmoregulation:* Chemical nature of excretory products in various animals, Physiology of excretion, Function of liver and kidney (Homeostatic regulatory functions of kidneys), Formation of urine, Osmoregulation by kidneys.

(C) *Respiratory system:* Exchange and transport of gases ( $O_2$  and  $CO_2$ ) factors affecting  $O_2$  and  $CO_2$  transport, Cellular respiration, different lung volumes, breathing and sound production.

(D) *Nervous systems*: Central, autonomic and peripheral nervous system, Receptors, Effectors, Reflex-action. Nature and conduction of Nerve- impulses, Synapse, Sense organs - Structure & working of Eye & Ear, Biochemistry of vision and taste buds.

(E) *Endocrine System*: Different endocrine glands and Hormones - definition, types, characteristics and their functions, (in relation to human beings), Hormonal disorders and pheromones.

(F) *Circulatory System*: Circulation of body fluids- Blood and lymph, Open and closed vascular systems, Structure and working physiology of Heart, Comparison between arteries and veins, Lymphatic system.

(G) *Animal Diversity*: Classification of Animal kingdom (Based on Storer & Eusinger), Characteristic feature of different phyla and classes with examples.

***Detailed studies of followings:***

(a) Protozoa

(i) Amoeba- Habit & Habitat, structure, locomotion, reproduction, Osmoregulation, Parasitic amoebae - Entamoeba histolytica and Entamoeba gingivalis, structure, diseases caused by them and their control measures.

(ii) Plasmodium vivax-life-cycle, malaria therapy and control.

(iii) Protozoan and diseases

(b) Porifera: A simple sponge ( Leucosolenia); Detailed study of structure & physiology, Sponge industry.

(c) Coelenterata: Hydra - Habit and Habitat, morphology, tissue differentiation in relation to physiological division of labour and regeneration.

(d) Aschelminthes: Ascaris- morphology, life-cycle, therapy and control.

(e) Annelida: Pheretima posthuma - Bionomics and economic importance.

(f) Arthropoda: (Periplanata): Structure- external and internal.

**Comparison between Periplanata and Blatta.**

(i) Housefly & Mosquito: structure and life – cycle

(ii) Economic importance of insets & their control.

**Botany**

**Plant Cell**: Structure & functions electron microscopic structured mitochondria, Plastids centrosomes. Lysosomes, microsomes, endoplasmic reticulum, Nucleus, Golgibodes, D.N.A & R.N.A. Cytoplasm, membranes and cell wall.

**Protoplasm**: structure, components physical and chemical properties.

Cell division (formation) - free cell formation, Amitosis & Meosis, Duplication of D.N.A.

**Ecology**: Ecological factors (atmospheric, edaphic, climatic, geological & biotic factors).

**Ecosystem**: Structure, components of ecosystem eg. Water soluble minerals and gases, producers consumers, decomposers, Pond and forest ecosystem.

Atmospheric pollution-causes and control, Types of pollution - Detergents, chemicals automobile exhaust, Radioactive matter, Smog, sound, Pesticides.

**Genetics**: Mendalism, Mendals experiment and law of inheritance.

Modern Classification of plant kingdom- (according to Ostwald & Tippe) (outline).



**Seeds in angiospermic plants:** description of development of angiospermic plants (life history of angiospermic plants).

**Fruits:** Dispersal of fruits and seeds

**Cell differentiation Plant Tissue:** Meristematic classification of meristematic & permanent tissue and functions and classification of tissue system.

**Anatomy of Root, stem and leaf:** difference between dicot and Monocot stem. Secondary growth of stem and root. Anatomy of hydrophytes, Xerophytes & Mesophytes.

**Important phyla:**

Algae: Habitat, general characters & uses, description of *Ulothrix* & *Spirogyra*.

Bacteria: structure - types of nutrition, reproduction and economic importance.

Fungi: structure description of *Rhizopus* and yeast and their economic importance, Fermentation.

Bryophyta: structure and economic importance, description of *Funaria* (Moss)

Pteridophyta: general structures of pteridophytes description of fern (*Drosera*)

General study of gymnosperms and life history of *Cycas*.

Classification of angiosperms,

Description of families - identification and economic importance

Cruciferae, Malvaceae, Leguminosae, Compositae, Cucurbitaceae.

**Soil:**

Absorption of water through root hairs osmosis, Translocation and Root pressure

Nitrogen cycle.

Special modes of nutrition in plants (Autotrophic, heterotrophic, Parasites, saprophytes, Symbionts insectivorous and their ecological relation.

**Photosynthesis:** Chloroplast, light, chlorophyll and Carbon dioxide, Mechanism of photosynthesis formation of A.T.P. and their functions and importance of photosynthesis.

Transpiration: factors and importance, Mechanism of opening and closing of stomata.

Respiration: aerobic, anaerobic respiration, mechanism of respiration (Glycolysis, Krebs's cycle, E.T.S.)

Growth & movement: definition of growth, Region of growth & their measurements, types of movements in plants, Growth hormone.

## **PAPER – 3 (AG-I, AG II & AG III)**

### **AG – I: AGRICULTURAL PHYSICS AND CHEMISTRY**

#### **Agricultural Physics**

Unit, measurement, Vernier, screw gauge, Force-analysis, force parallelogram, momentum of force, equilibrium of forces, velocity and acceleration, speed, laws of motion, gravitational motion, acceleration due to gravity, circular motion, Centrifugal and centripetal forces, pressure, Capillary force and tension, atmospheric surface-barometer, Boyle's law, friction and simple example of its laws, Working of common pumps, operation, performance, power and energy, heat and temperature, radiation, convection and conduction, heat conductance, specific heat in relation to solids, physical change in the solid due to heat,

latent heat, relationship between heat and work, dewpoint, relative humidity and its determination, formation of clouds, fog, frost, snow and hail, weather and its forecasting.

### **Agricultural Chemistry**

Matter - solid and liquid, physical and chemical changes, element, mixture, compound, laws of chemical combination, laws of conservation, laws of proportion, laws of gases, explanation of above laws in reference to atomic principle, atomic laws, new & old concepts, definition, simple explanation and inter-relationship of the following:

Valency, atomic weight, molecular weight, equivalent weight, structure of atom, Avogadro's hypothesis and its uses, ionic theory, difference between atom and ion, explanation of the following with the help of ionic theory, electrolysis, acid, alkali, salt, water, hydrolysis and neutralisations, oxidation and reduction, classification of elements.

**Inorganic Chemistry:** Water and its hardness, methods of treatment of hard water and soft water, occurrence of compounds, properties and uses of the following elements nitrogen, ammonia, nitric acid, carbon, carbon dioxide, phosphoric acid, sulphur dioxide, sulphuric acid, chlorine, hydrochloric acid. Occurrence properties, uses and their functions in the plants of the following: Sodium, sodium chloride, sodium hydroxide, sodium carbonate, sodium bicarbonate, sodium phosphate, sodium nitrate, potassium sulphate, Calcium, calcium oxide, calcium carbonate, calcium sulphate and calcium nitrate, Iron, sulphate and iron phosphate, aluminium, aluminium sulphate and aluminium phosphate Nitrogen cycle, Fixation of nitrogen in the soil, function of Super-phosphate and phosphorus in plant, nitrogen fertilizers.

**Organic Chemistry:** Formation of organic compounds, physical properties, nomenclature, general knowledge of the following compounds, simple formulae, general properties and main uses, Structural formula of the following: Hydrocarbon (saturated and unsaturated) alcohol ethyl alcohol and glycol, aldehyde and ketones, formaldehyde, acetone, amine and oxide, methyl and ethylamine, urea, Acids: acetic, benzoic, lactic, Oxalic acids, fats and oils, soap and saponification, carbohydrates, glucose, fructose, starch, simple methods of making benzene and phenol and their properties.

## **AG – II: AGRICULTURAL ENGINEERING AND STATISTICS**

### **Agricultural Engineering**

Properties of different materials used in agricultural implements, Classification of plough their merits, comparison, common troubles in their operation and precautions, maintenance, assembly, cost and comparison of cultivation harrow, hoe, float, scraper and seed drill, draft of implements. Their measurements, factors affecting draft. Water lifts, their discharge, capacities, command area, and cost of irrigation ( water lifts should include common water lifts and low lift pumps ). Tillage and ploughing, types of ploughing and their merits. Types and objects tillage. Chemical and Physical effects of tillage practices for different crops. Transmission of power through gears. Pulleys and belts, hand operated chaff cutters, cane crusher, winnowing fan, and splat threshers.

### **Agricultural Statistics**

Collection of data, classification and tabulation, frequency distribution, mean and their kinds, merits and demerits. Measurements of dispersion.

## **AG – III: AGRONOMY & AGRICULTURAL BOTANY**

### **Agronomy**

**Crops:** Cultivation, practices of common crops of India and their varieties..

**Soils:** Origin, classification and physical properties of soils, soil conservation.

**Manures And Manuring:** Nutrients for plants growth, uptake of N.P.K. organic and inorganic fertilizers, farmyard and green manures, their properties and method of application, knowledge of following manures and fertilizer: FYM, compost, urinated soil, castor and groundnut cake, ammonium sulphate, sodium nitrate, super phosphate, potassium sulphate, urea, CAN ammonium chloride and mixtures.

**Irrigation & Drainage:** Methods, measurement and type of irrigation and drainage systems, Cultivation practices of common vegetable and fruit crops.

### **Agricultural Botany**

External morphology of plants, function and modification of stem, root and leaves, structure and function of different parts of flower, type of inflorescence, pollen and pollination, classification, structure, germination and dispersal of seeds, type of function and their dispersal, internal morphology of plant cell, reproductive organs of angiosperms, knowledge of structure of rlltharis, Absorption, Respiration, Transpiration and carbon assimilation, root pressure, Translocation of foods and storage, Introductory knowledge of Taxonomy and plant kingdom specially Regional and Horticultural plants laminaries, Cruciferease, Leguminaceae, Cucurbitaceae, Solonaceae, Malbaceae, Elementry Knowledge of mosses, ferns, mucors, bacteria.

## **PAPER – 4 (APTITUDE TEST FOR ARCHITECTURE)**

### **Part – A: Mathematics & Aesthetic Sensitivity**

#### **MATHEMATICS**

**Algebra:** Sets relations & functions, De-Morgan's Law, Mapping Inverse relations, Equivalence relations, Peano's axioms, Definition of rationals and integers through equivalence relation, Indices and surds, Solutions of simultaneous and quadratic equations, A.P., G.P. and H.P., Special sums i.e.  $\sum n^2$  and  $\sum n^3$  ( $n \in \mathbb{N}$ ), Partial fraction, Binomial theorem for any index, exponential series, Logarithm and Logarithmic series. Determinants and their use in solving simultaneous linear equations, Matrices, Algebra of matrices, Inverse of a matrix, Use of matrix for solving equations.

**Probability:** Definition, Dependent and independent events, Numerical problem on addition and multiplication, theorem of probability.

**Trigonometry:** Identities, Trigonometric equations, properties of triangles, solution of triangles, heights and distances, Inverse function, Complex numbers and their properties, Cube roots of unity, De-Moivre's theorem.

**Co-ordinate Geometry:** Pair of straight lines, Circles, General equation of second degree, parabola, ellipse and hyperbola, tracing of conics.

**Calculus:** Limits & continuity of functions, Differentiation of function of function, tangents & normal, Simple examples of Maxima & Minima, Indeterminate forms, Integration of function by parts, by substitution and by partial fraction, definite integral, application to volumes and surfaces of frustums of sphere, cone and cylinder. Differential equations of first order and of first degree.

**Vectors :** Algebra of vectors, scalar and vector products of two and three vectors and their applications.

**Dynamics :** Velocity, composition of velocity, relative velocity, acceleration, composition of accelerations, Motion under gravity, Projectiles, Laws of motion, Principles of conservation of momentum and energy, direct impact of smooth bodies.

**Statics:** Composition of coplanar, concurrent and parallel forces moments and couples resultant of set of coplanar forces and condition of equilibrium, determination of centroid in simple cases, Problems involving friction.

### **Aesthetic sensitivity**

Aesthetic sensitivity Test is aimed to evaluate a candidate for aesthetic Perception, Imagination, and Observation; Creativity and Communication; and Architectural awareness.

- Visualizing three dimensional objects from two dimensional drawings
- Visualizing different sides / surfaces of three dimensional objects.
- Identifying commonly used materials and objects based on their textural qualities.
- Analytical Reasoning
- Mental Ability
- Imaginative comprehension and expression
- Architectural awareness

### **Part- B: Drawing Aptitude**

The Drawing Aptitude Test is aimed to evaluate a candidate for his understanding of Scale and Proportion; sense of perspective, colour and; understanding of the effects of light on objects through shades and shadows

- Ability to sketch a given object proportionately and rendering the same in visually appealing manner
- Visualising and drawing the effects of light on the objects and their shadow cast on the surroundings.
- Sense of Perspective Drawing
- Combining and composing given three dimensional elements to form a building or structural form
- Creating interesting two dimensional compositions using given shapes or planner forms
- Creating visual harmony using colours in given composition
- Understanding of scale and sense of proportion

**PAPER – 5 (APTITUDE TEST FOR GENERAL AWARENESS  
(BHMCT/BFAD/BFA))**

**(A) Reasoning & Logical Deduction:**

- Geometrical designs & Identification
- Selection of related letters / words / numbers / figures
- Identification of odd thing / item out from a group
- Completion of numerical series based on the pattern / logic
- Fill in the blanks of the series based on the numerical pattern and logic of the series
- Syllogisms (logic based questions), Identification of logic & selection of correct answers based on the logic

**(B) Numerical Ability & Scientific Aptitude:**

- Arithmetical questions up to 10<sup>th</sup> standard
- Calculation of fraction, percentages, square roots etc.
- Profit & Loss and Interest calculations
- Data / Table analysis, Graph & Bar Diagram and Pie Chart analysis
- Questions related to common use of science (Physics & Chemistry)
- Health & Nutrition

**(C) General Knowledge:**

- Current affairs / Events (Political, Social, Cultural & Economics)
- Historical events
- Geography including Tourist Places / Spots
- Current affairs relating to Business & Trade
- Countries & Currencies
- Latest Who's Who?
- Sports & Games

**(D) English Language:**

- Word Meanings
- Antonyms & Synonyms
- Meaning of Phrases & Idioms
- Fill in the blanks
- Complete / Improvement of the sentences with correct use of Pronouns, Verbs, Adverbs & Adjectives
- Reading comprehension's followed by questions

## **PAPER – 6 (APTITUDE TEST FOR DIPLOMA HOLDERS IN ENGINEERING)**

Engineering Mechanics, Engineering Graphics, Basic Electrical Engg., Basic Electronics Engg., Elements of computer science, Elementary Biology, Basic Workshop Practice and Physics/Chemistry/Maths of Diploma standard.

## **PAPER – 7 (APTITUDE TEST FOR DIPLOMA HOLDERS IN PHARMACY)**

1. Pharmaceutics-I
2. Pharmaceutical Chemistry - I
3. Pharmacognosy
4. Biochemistry and Clinical Pathology
5. Human Anatomy and Physiology
6. Health Education & Community Pharmacy
7. Pharmaceutics - II
8. Pharmaceutical Chemistry - II
9. Pharmacology and Toxicology
10. Pharmaceutical Jurisprudence
11. Drug Store and Business management
12. Hospital and Clinical Pharmacy

## **PAPER – 8 (APTITUDE TEST FOR B.SC. GRADUATE IN ENGINEERING)**

**Linear Algebra:** Matrix Algebra, Systems of linear equations, Eigen values and eigen vectors.

**Calculus:** Mean value theorems, Theorems of integral calculus, Evaluation of definite and improper integrals, Partial Derivatives, Maxima and minima, multiple integrals, Fourier series. Vector identities, Directional derivatives, Line, Surface and Volume integrals, Stokes, Gauss and Green's theorems.

**Differential equations:** First order equation (linear and nonlinear), Higher order linear differential equations with constant coefficients, Method of variation of parameters, Cauchy's and Euler's equations, Initial and boundary value problems, Linear partial differential equations with constant coefficients of 2<sup>nd</sup> order and their classifications and variable separable method.

**Complex variables:** Analytic functions, Cauchy's integral theorem and integral formula, Taylor's and Laurent' series, Residue theorem, solution integrals.

**Probability and Statistics:** Sampling theorems, Conditional probability, Mean, median, mode and standard deviation, Random variables, Discrete and continuous distributions, Poisson, Normal and Binomial distribution, Correlation and regression analysis.

**Fourier Series:** Periodic functions, Trigonometric series, Fourier series of period  $2\pi$ , Eulers formulae, Functions having arbitrary period, Change of interval, Even and odd functions, Half range sine and cosine series.

**Transform Theory:** Laplace transform, Laplace transform of derivatives and integrals, Inverse Laplace transform, Laplace transform of periodic functions, Convolution theorem, Application to solve simple linear and simultaneous differential equations.

Fourier integral, Fourier complex transform, Fourier sine and cosine transforms and applications to simple heat transfer equations. Z – transform and its application to solve difference equations.

## PAPER – 9 (APTITUDE TEST FOR MBA)

The test is aimed at evaluating the verbal ability, quantitative aptitude, logical & abstract reasoning and knowledge of current affairs. The following is a brief description of contents of the test paper.

**Section A (English Language):** Grammar, vocabulary, uncommon words, sentence completion, synonyms, antonyms, relationship between words & phrases and comprehension of passages.

**Section B (Numerical Aptitude):** Numerical calculation, arithmetic, simple algebra, geometry and trigonometry, Interpretation of graphs, charts and tables.

**Section C (Thinking and Decision Making):** Creative thinking, unfamiliar relationships, verbal reasoning, finding patternstrends and Assessment of figures & diagrams.

**Section D (General Awareness):** Knowledge of current affairs and other issues related to trade, industry, economy, sports, culture and science.

## PAPER – 10 (APTITUDE TEST FOR MCA)

### (i) MATHEMATICS

**Modern Algebra:** Idempotent law, identities, complementary laws, Demorgan's theorem, mapping, inverse relation, equivalence relation, PIANO's Axiom, definition of rational numbers and integers through equivalence relation.

**Algebra:** Surds, solution of simultaneous and quadratic equations, arithmetic, geometric and harmonic progression, Binomial theorem for any index, logarithms, exponential and logarithmic series, determinants.

**Probability:** Definition, dependent and independent events, numerical problems on addition and multiplication of probability, theorems of probability.

**Trigonometry:** Simple identities, trigonometric equations, properties of triangles, use of mathematical tables, solution of triangles, height and distance, inverse functions, DeMoiver's theorem.

**Co-Ordinate Geometry:** Co-ordinate geometry of the straight lines, pair of straight lines, circle, parabola, ellipse and hyperbola and their properties.

**Calculus:** Differentiation of function of functions, tangents and normal, simple examples of maxima of minima, limits of function, integration of function (by parts, by substitution and by partial fraction), definite integral (application to volumes and surfaces of frustums of sphere, cone and cylinder).

**Vectors:** Position vector, addition and subtraction of vectors, scalar and vector products and their applications.

**Dynamics:** Velocity, composition of velocity, relative velocity, acceleration, composition of acceleration, motion under gravity, projectiles, laws of motions, principles of conservation of momentum and energy, direct impact of smooth bodies, pulleys.

**Statics:** Composition of co-planar, concurrent and parallel forces, moments and couples, resultant of set of coplanar forces and conditions of equilibrium, determination of Centroides in simple case, problems involving friction.

**(ii) STATISTICS**

Theory of probability, Mean, Median, Mode, Dispersion and Standard Deviation.

**(iii) LOGICAL ABILITY**

Questions to test analytical and reasoning capability of candidates.

**PAPER- 11**  
**APTITUDE TEST FOR MASTER IN APPLIED MANAGEMENT (MAM)**  
**(5 years Dual Degree course)**

The test is aimed at assess the language, quantitative aptitude, logic and reasoning power and general knowledge of candidates.

**Section A (English Language):** Grammar, Vocabulary, Synonyms, Antonyms, Sentence Completion and Phrases, Comprehension of Passages.

**Section B (Numerical Aptitude):** Arithmetic's, Algebra, Geometry, Trigonometry, Interpretation of Graphs, Charts and Tables.

**Section C (Mental Ability):** Reasoning Aptitude, Patterns, Trends, Recognition and Assessment of Figures and Diagrams.

**Section D (General Knowledge & Current Affairs):** Political Awareness, Economic Affairs and Business Environment, General Awareness of Sciences, Sports and Games, Society, History, Geography, Civilization and Culture.

**PAPER 12 APTITUDE TEST FOR 2nd Year MCA (Lateral Entry)**

**(I) MATHEMATICAL STRUCTURES**

**Modern Algebra and Matrices:** Algebraic structures and general properties, semigroups, groups. Rings and Fields: definitions, elementary properties and standard results. Matrices, operation on matrices, Inverse and rank of a matrix, Eigen values, eigenvectors and system of linear equations.

**Set Theory:** Introduction, sets and cardinals, combination of sets, multisets and set identities. Relations - definition, operations on relations, composite relations, properties of relations, partial order relations. Functions - definition, classification of functions, operations on functions, recursively defined functions.

**Number Theory and Methods of Proof:** Natural numbers, factorization and prime numbers, floor and ceiling functions. Methods of proof – Introduction, direct and indirect methods of proof, mathematical Induction.



**Combinatorics and Probability:** Introduction, counting techniques, Pigeonhole principle. Probability –definition, sample space, algebra of events, axioms of probability, prior and posterior probability, Bayes theorem.

(II) **COMPUTING CONCEPTS**

**Principles of Computer Science:** Computer organization - evaluation of computers, computer arithmetic, control design, processor design, input output organization, memory organization. Data Structures – Arrays, lists, stacks, queues. Trees and graphs - definition, properties and applications. Analysis of algorithms.

**Proposition logic and Boolean Algebra:** Propositions, truth tables, tautology, contradiction, algebra of propositions. Binary systems, axioms and theorems of Boolean algebra, Boolean functions and digital circuits.

**Numerical Techniques:** Floating point Arithmetic, solution of the system of linear equations, roots of polynomials, interpolation and curve fitting.

**Theory of Computation:** Finite-state machines, regular and non-regular languages, Turing machines and applications.

(III) **REASONING ABILITY**

Questions in this part will be aimed to assess the reasoning and logical ability of the candidates

**Appendix–B****(i) LIST OF BRANCHES OF ALL THE COURSES**

NAME OF BRANCHES	BRANCH CODE	STREAM
Aeronautical Engineering	AE	B.Tech.
Agricultural Engineering	AG	B.Tech
Applied Electronics & Instrumentation	AI	B.Tech
Architecture	AR	B.Arch.
Automobile Engineering	AU	B.Tech.
Bio Chemical Engineering	BC	B.Tech
Building Engg. & Construction Technology (Architecture)	BE	B.Arch.
Bio Medical Engineering	BM	B.Tech.
Bachelor of Pharmacy	BP	B.Pharm
Bio-Technology	BT	B.Tech.
Chemical & Alcohol Technology	CA	B.Tech.
Civil Engineering	CE	B.Tech.
Chemical Engineering	CH	B.Tech.
Computer Science	CO	B.Tech.
Computer Science & Engineering	CS	B.Tech.
Computer Science & Information Technology	CSI	B.Tech.
Electronics & Communication Engineering	EC	B.Tech.
Electrical Engineering	EE	B.Tech.
Electronics & Instrumentation Engineering	EI	B.Tech.
Electronics Engineering	EL	B.Tech.
Electrical & Electronics Engineering	EN	B.Tech.
Electronics & Telecomm Engineering	ET	B.Tech.
Electronics Instrumentation & Control	EX	B.Tech.
Environmental Engineering	EV	B.Tech.
Electronics & Computer Engineering	ECZ	B.Tech.
Electrical & Computer Engineering	EZ	B.Tech.
Fashion & Apparel Design	FD	B.FAD
Food Technology	FT	B.Tech.
Hotel Management	HM	BHMCT
Instrumentation & Control	IC	B.Tech.
Interior Design (Architecture )	ID	B.Arch
Instrumentation Engineering	IN	B.Tech.
Industrial Production Engg.	IP	B.Tech.
Information Technology	IT	B.Tech.

Leather Technology	LT	B.Tech.
Mechanical Engineering	ME	B.Tech.
Manufacturing Technology	MF	B.Tech.
Man Made Fiber Technology	MM	B.Tech.
Marine Engineering	MR	B.Tech.
Material & Metallurgical Engineering	MST	B.Tech.
Metallurgical Engineering	MT	B.Tech.
Mechanical & Industrial Engineering	MX	B.Tech.
Oil Technology	OT	B.Tech.
Production Engineering	PE	B.Tech.
Planning (Architecture)	PA	B.Arch.
Production & Industrial Engineering	PI	B.Tech.
Plastic Technology	PL	B.Tech.
Paint Technology	PT	B.Tech.
Textile Chemistry	TC	B.Tech.
Textile Technology	TT	B.Tech.
Textile Engineering	TX	B.Tech.
Fine Arts	FA	BFA

**(ii) LIST OF BRANCHES OF MBA & MCA COURSES**

<b>NAME OF BRANCHES</b>	<b>BRANCH CODE</b>	<b>STREAM</b>
Master of Business Administration (MBA)	M1	MBA
Master of Business Administration _Business Economics	M2	MBA
Master of Business Administration _Finance & Control	M3	MBA
Master of Business Administration _Tourism Management	M4	MBA
Master of Business Administration _International Business (IB)	M5	MBA
Master of Business Administration _Financial Management (FM)	M6	MBA
Master of Business Administration _Agri. Business	M17	MBA
Master of Business Administration _Marketing	M20	MBA
Master of Business Administration _E-Commerce	M21	MBA
Master of Business Administration _Human Resource & Development	M22	MBA
Master of Computer Applications	MCA	MCA

## **Appendix C**

### **List of Institutions/Branches/Intake of UG & PG Courses**

**Please see the Website: <http://www.upsee.nic.in> or <http://www.aktu.ac.in>**

## Appendix-D

### CERTIFICATE – 1 (प्रमाण पत्र-1)

#### अनुसूचित जाति/जनजाति (UPSC/UPST/GDSC/GDST)

(अभ्यर्थी के जन्म जिले के जिला मजिस्ट्रेट/प्रथम श्रेणी मजिस्ट्रेट द्वारा प्रमाणित)

यह प्रमाणित किया जाता है कि श्री/कु0 ..... पुत्र/पुत्री श्री .....  
निवासी गाँव/शहर ..... तहसील ..... जिला .....  
प्रदेश ..... का जन्म ..... जाति में हुआ था और यह जाति अनुसूचित जाति/जनजाति  
आदेश (संशोधन) एक्ट 1956 के अन्तर्गत भारत सरकार/उत्तर प्रदेश शासन .....  
सरकार द्वारा मान्य अनुसूचित जाति/जनजाति है।

अभ्यर्थी के हस्ताक्षर

दिनांक

स्थान

हस्ताक्षर

नाम

मोहर

जिला अधिकारी / अतिरिक्त जिला अधिकारी /

सिटी मजिस्ट्रेट / परगना मजिस्ट्रेट / तहसीलदार

Note: Proforma of certificate shall be changed according to latest Govt. order.

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## CERTIFICATE – 2 (प्रमाण पत्र-2)

### उत्तर प्रदेश के अन्य पिछड़े वर्ग के लिए जाति प्रमाण पत्र का प्रपत्र (UPBC/GDBC)

यह प्रमाणित किया जाता है कि श्री/श्रीमती /कुमारी ..... सुपुत्र/सुपुत्री  
श्री .....निवासी ग्राम .....  
तहसील ..... नगर ..... जिला ..... उत्तर प्रदेश राज्य की  
..... पिछड़ी जाति के व्यक्ति हैं। यह जाति उत्तर प्रदेश लोक सेवा अनुसूचित जातियों ।  
अनुसूचित जनजातियों तथा पिछड़े वर्गों के लिए आरक्षण अधिनियम, 1994 की अनुसूची – 1 के अन्तर्गत  
मान्यता प्राप्त है।

यह भी प्रमाणित किया जाता है कि श्री/श्रीमती/कुमारी ..... उक्त  
अधिनियम 1994 की अनुसूची –2 (अधिसूचना संख्या –22/16/92-का 02/1995 टी0 सी0 दिनांक  
8 दिसम्बर, 1995 द्वारा यथा संशोधित) से आच्छादित नहीं है।

श्री/श्रीमती/कुमारी ..... तथा अथवा उनका परिवार उत्तर प्रदेश के  
ग्राम ..... नगर ..... जिला .....  
में सामान्यतया रहता है।

अभ्यर्थी के हस्ताक्षर  
दिनांक

हस्ताक्षर  
नाम

स्थान  
मोहर

जिला अधिकारी / अतिरिक्त जिला अधिकारी /  
सिटी मजिस्ट्रेट / परगना मजिस्ट्रेट / तहसीलदार

नोट- अभ्यर्थी ध्यान दें कि उ0प्र0 के अन्य पिछड़े वर्ग के लिए जाति प्रमाण अप्रैल 01, 2016 के पश्चात का बना हुआ होना आवश्यक है क्योंकि कीमीलेयर के अन्तर्गत आने वाले अभ्यर्थियों को आरक्षण का लाभ अनुमन्य नहीं है।

### CERTIFICATE – 3 (प्रमाण पत्र-3)

उत्तर प्रदेश के मूल/सामान्य निवासी के पुत्र/पुत्री (UPGD/GDSC/GDST/GDBC)  
(उस जिले के अधिकारी द्वारा प्रमाणित जिस जिले के माता/पिता निवासी है)

यह प्रमाणित किया जाता है कि श्री/श्रीमती (अभ्यर्थी के पिता/माता का नाम) .....  
पिता/माता श्री/कु0(अभ्यर्थी का नाम)..... उत्तर प्रदेश के  
गाँव/शहर ..... तहसील ..... जिला ..... के मूल  
निवासी हैं तथा श्री/कु0 (अभ्यर्थी का नाम) ..... अपने पिता/माता पर  
पूर्णतया आश्रित हैं। उक्त पते पर श्री/कु0 (अभ्यर्थी का नाम) ..... के  
माता/पिता सामान्यतः निवास करते हैं।

दिनांक  
स्थान

हस्ताक्षर जिला मजिस्ट्रेट  
पूरा नाम  
पदनाम  
मुहर (जिला मजिस्ट्रेट की सील)

जिला मजिस्ट्रेट अथवा जिला मजिस्ट्रेट द्वारा अधिकृत अपर जिला मजिस्ट्रेट/सब डिवीजन मजिस्ट्रेट द्वारा  
प्रमाण पत्र ही मान्य होंगे जो शा0आ0 सं0-157/तीन -2003-77(II)/83 दिनांक 18 फरवरी, 2003 के  
अधीन जारी किया जायेगा।

नोट- प्रमाण पत्र-3 अभ्यर्थी के माता/पिता का बना होना चाहिए क्योंकि अभ्यर्थी जिन्होंने अर्हकारी परीक्षा  
उत्तर प्रदेश के बाहर स्थित किसी विद्यालय से उत्तीर्ण की है परन्तु उनके माता/पिता उत्तर प्रदेश के  
मूल/स्थाई निवास हैं परीक्षा में बैठने के पात्र हैं।

### CERTIFICATE – 4 (प्रमाण पत्र-4) (Sub-Category UPPF)

उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतंत्रता संग्राम सेनानी के आश्रितों और भूतपूर्व  
सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतन्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र  
का प्रपत्र

प्रमाणित किया जाता है कि श्री/श्रीमती (स्वतंत्रता संग्राम सेनानी का नाम) .....  
निवासी ग्राम ..... तहसील ..... नगर .....  
जिला ..... उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतंत्रता संग्राम सेनानी  
के आश्रितों और भूतपूर्व सैनिकों के लिए आरक्षण) अधिनियम 1993 के अनुसार स्वतन्त्रता संग्राम सेनानी हैं  
और श्री/श्रीमती/कु0(आश्रित अभ्यर्थी का नाम) .....  
पुत्र/पुत्री/पौत्र/अविवाहित पौत्री उपरांकित अधिनियम, 1993 के ही प्रावधानों के अनुसार उक्त  
श्री/श्रीमती (स्वतन्त्रता संग्राम सेनानी) ..... के आश्रित हैं।

दिनांक  
स्थान

हस्ताक्षर  
पूरा नाम एवं पदनाम  
मुहर (जिला मजिस्ट्रेट की सील)

Note: Proforma of certificate may be changed according to latest Govt. order.

## CERTIFICATE – 5 (प्रमाण पत्र-5)

उत्तर प्रदेश/सेना दल (Sub-Category UPAF)

(अंतिम यूनिट के आफिसर कमान्डिंग/जिला सैनिक कल्याण बोर्ड द्वारा प्रमाणित)

यह प्रमाणित किया जाता है कि श्री/श्रीमती (अभ्यर्थी के पिता अथवा माता का नाम) .....  
निवासी गाँव/शहर ..... तहसील ..... जिला .....  
उत्तर प्रदेश, के दिनांक .....को सेवा निवृत्त (Superannuated) युद्ध में मारे गये/अपंग हो  
गये/उत्तर प्रदेश में वर्तमान में तैनात है। वे भारतीय थलसेना/जलसेना/वायुसेना के स्थान .....  
दिनांक..... से दिनांक ..... तक कार्यरत थे/हैं।

दिनांक

स्थान

यूनिट कमान्डिंग आफिसर के हस्ताक्षर

नाम

मोहर

(जिला मजिस्ट्रेट द्वारा प्रमाणित)

यह प्रमाणित किया जाता है कि श्री/कु0(अभ्यर्थी) ..... निवासी .....  
उत्तर प्रदेश गाँव/शहर ..... तहसील ..... जिला ..... उपरोक्त  
सेना दल के सेवा निवृत्त (Superannuated) युद्ध में मारे गये या अपंग हो गये कर्मचारी जो उत्तर प्रदेश के  
स्थायी निवासी हैं/थे, के पुत्र/पुत्री हैं अथवा प्रवेश परीक्षा की तिथि ( अप्रैल 17/23 /24 अप्रैल, 2016)  
को उत्तर प्रदेश भारतीय थलसेना/जल सेना/वायुसेना में कार्यरत थे/हैं।

दिनांक

स्थान

हस्ताक्षर

नाम

मोहर

## CERTIFICATE – 6 (प्रमाण पत्र-6) (Sub-Category UPHC)

शारीरिक विकलांग के अधिमान के लिए प्रमाण पत्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित)

- 1- यह प्रमाणित किया जाता है कि श्री/कु0(अभ्यर्थी) .....पुत्र/पुत्री श्री  
(पिता का नाम) .....नीचे लिखे कारणों से शारीरिक रूप से विकलांग हैं।  
(केवल मुख्य चिकित्सा अधिकारी ही कारण लिखें).....
2. अभ्यर्थी की उपरोक्त विकलांगता को निम्न प्रकार की विकलांगता की श्रेणी में रखा जा सकता है।  
(कृपया ✓ का निशान लगायें)

Type - I: Minimum 40% permanent Visual impairment	
Type-II: Minimum 40% permanent Locomoter disability	
Type-III: Minimum 40% permanent Speech Hearing impairment	

- 3- यह भी प्रमाणित किया जाता है कि उपरोक्त विकलांग स्थिति अभ्यर्थी के इन्जीनियरिंग शिक्षा प्राप्त करने में बाधक नहीं होगी।

अभ्यर्थी के हस्ताक्षर

नाम

दिनांक

चिकित्साधिकारी के हस्ताक्षर

नाम

मुहर



**CERTIFICATE – 7 (प्रमाण पत्र-7)**  
उत्तर प्रदेश ग्रामीण क्षेत्र के लिये अधिमान (UPGE)  
(कालेज के प्रधानाचार्य द्वारा प्रमाणित)

यह प्रमाणित किया जाता है कि श्री/कु0(अभ्यर्थी) ..... ने .....  
..... कालेज गाँव ..... से इण्टरमीडिएट की शिक्षा प्राप्त की। यह  
कालेज तहसील ..... जिला ..... उत्तर प्रदेश के ग्रामीण क्षेत्र में  
स्थित हैं तथा ग्राम पंचायत के कार्य क्षेत्र के सीमा के अन्दर है और यह क्षेत्र औद्योगिक विकसित क्षेत्र नहीं  
है।

दिनांक ..... हस्ताक्षर .....

स्थान ..... नाम  
मुहर

(जिला विद्यालय निरीक्षक एवं जिला मजिस्ट्रेट द्वारा प्रमाणित)

प्रधानाचार्य द्वारा दिया गया कालेज की स्थिति से संबंध उपरोक्त वक्तव्य प्रमाणित किया जाता है।

दिनांक ..... हस्ताक्षर जिला विद्यालय निरीक्षक

स्थान ..... नाम

मुहर

दिनांक ..... प्रति हस्ताक्षरित जिला मजिस्ट्रेट

स्थान ..... नाम

मुहर

**CERTIFICATE – 8 (प्रमाण पत्र-8)**  
**CHARACTER CERTIFICATE FROM THE HEAD OF**  
**THE INSTITUTION LAST ATTESTED**

This is to certify that Sri / Km. \_\_\_\_\_  
has been a bonafide student of \_\_\_\_\_  
from \_\_\_\_\_ to \_\_\_\_\_ and  
has passes / appeared at the \_\_\_\_\_  
examination in the year \_\_\_\_\_

**Proctorial reports:**

1. Has he / she involved himself / herself if any act of indiscipline ? Yes / No
2. Has he / she been warned, Fined or punished for any act of indiscipline? Yes / No
3. Has he / she been restricted or expelled from Hostel of College for any reason? Yes/ No
4. Has he / she been involved in any act of indisiple outside the College campus like group clashes or fraction fights etc. Yes/ No
5. Has he / she been addicted to drugs or intoxicants? Yes/ No

**General remarks (Please state your assessment of the student)**

**Date :**

**Signature** \_\_\_\_\_

**Name** \_\_\_\_\_

**Designation** \_\_\_\_\_

## CERTIFICATE – 9 (प्रमाण पत्र-9)

### \* FORMAT FOR MEDICAL CERTIFICATE

(To be obtained from a Chief Medical Officer or Medical Officer of a participating U.P. State Funded Engg. Institute)

This certificate has to be submitted at the time of admission in the college allotted.

Name of Candidate:		Age:	Sex:		
UPSEE-2016 Roll No.:		Category:	Subcategory & Weighatge:		
State Rank Position:		Father's Name:			
( To be filled in by the Candidate )					
L.T.	M.I.	VISION	Colour Vision:		
Height	Weight		Chest	Abdomen	
History		Operation	Kockh's	Colics	B.P.
		Seizures	Asthma	Piles	Diabetes
E X A M I N A T I O N	Pulse	Tonsil	DNS	Hernia	
	Pallor	L.Nodes	CSOM	Hydrocele	
	Cardiovascular		CNS		
	Respiratory		GIT		
Genitourinary		Others			
Is the candidate physically handicapped/Disabled:		<input type="checkbox"/>	(Please tick) Yes / No		
If yes, type of handicap/disability:		<input type="checkbox"/>	Type -I: Minimum 40% permanent Visual impairment		
(Please tick ✓ the type of handicap/disability)		<input type="checkbox"/>	Type-II: Minimum 40% permanent Locomoter disability		
		<input type="checkbox"/>	Type-III: Minimum 40% permanent speech and Hearing impairment		
Any other finding:					
Certified that the candidate is physically fit/unfit/temporally disqualified to pursue engineering studies					

Signature of Candidate

Signature of the issuing Medical Officer ( with Official stamp)

## CERTIFICATE – 10 (प्रमाण पत्र-10)

### UNDERTAKING BY CANDIDATE FOR MEDICAL FITNESS

I certify that I have no such physical handicap/disability which would hinder the pursuit of studies in the courses in which I am seeking admission. If at stage it is found that I have a physical handicap/ disability which would hinder the pursuit of studies in the courses in which I am seeking admission then my admission will be liable to be cancelled. I will produce medical fitness certificate from a C.M.O./C.M.S. at the time of my joining the institution allotted by UPSEE-2016 counselling.

Dated:

Counter Signed by Father / Guardian

Signature of the Candidate

**CERTIFICATE – 11 (प्रमाण पत्र-11)**

**अखिल भारतीय सेवा के उ0प्र0 कैंडर के अधिकारियों/कर्मचारियों हेतु**

प्रमाणित किया जाता है कि श्री/श्रीमती (अभ्यर्थी के माता/पिता का नाम) .....  
पदनाम .....विभाग का नाम ..... कैंडर संख्या .....  
.अखिल भारतीय सेवा के उ0प्र0 कैंडर के अधिकारी/कर्मचारी है तथा वर्तमान में इस कार्यालय में कार्यरत  
हैं। यह प्रमाण पत्र इनके पुत्र/पुत्री (अभ्यर्थी का नाम) .....को डा0  
ए0पी0जे0 अब्दुल कलाम प्राविधिक विश्वविद्यालय उत्तर प्रदेश, लखनऊ के अन्तर्गत प्रवेश हेतु प्रदान किया  
जाता है।

दिनांक: .....

विभागाध्यक्ष/कार्यालयाध्यक्ष का हस्ताक्षर  
नाम एवं पदनाम  
मुहर

**CERTIFICATE-12 (प्रमाण पत्र-12)  
(Income Certificate)**

क्षेत्रीय भूलेख निरीक्षक तथा लेखपाल की जांच रिपोर्ट के आधार पर प्रमाणित किया जाता है कि  
----- (आवेदक के अभिभावक/माता/पिता का नाम) सुपुत्र  
----- निवासी/ग्राम ----- परगना  
----- तहसील ----- नगर ----- जिला  
----- राज्य ----- के स्वयं की मासिक आय रूपया  
----- तथा वार्षिक आय रूपया ----- है।  
लेखपाल की रिपोर्ट के अनुसार आय का स्रोत ----- है।

स्थान:

दिनांक:

तहसीलदार  
मुहर

नोट— अभ्यर्थी ध्यान दें कि उ0प्र0 के आर्थिक रूप से कमजोर अभ्यर्थियों के लिए प्रमाण पत्र अप्रैल 01,  
2016 के पश्चात का बना हुआ होना आवश्यक है।

## Appendix - E

The UPSEE-2016 will be held at various cities as given in the following tables. The candidates are advised to give three choices of examination cities.

- (i) **Paper 1, Paper 2, Paper 3 and Paper 4** are **OMR based Tests** and shall be held in various cities given in the **Examination City Table-I**
- (ii) **Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10, Paper 11 and Paper 12** are **Computer based Tests** and shall be held in various cities given in the **Examination City Table-II**.

**Examination City Table-I  
(OMR Based Test)  
[For Paper 1, Paper 2, Paper 3 and Paper 4]**

<p><b>Cities in State of U.P.</b></p> <ol style="list-style-type: none"> <li>1. Agra</li> <li>2. Firozabad</li> <li>3. Mathura</li> <li>4. Aligarh</li> <li>5. Allahabad</li> <li>6. Azamgarh</li> <li>7. Ballia</li> <li>8. Mau</li> <li>9. Bareilly</li> <li>10. Shahjahanpur</li> <li>11. Basti</li> <li>12. Banda</li> <li>13. Gonda</li> <li>14. Ambedkar Nagar</li> <li>15. Barabanki</li> <li>16. Faizabad</li> </ol>	<ol style="list-style-type: none"> <li>17. Sultanpur</li> <li>18. Deoria</li> <li>19. Gorakhpur</li> <li>20. Kushinagar</li> <li>21. Jalaun (Orai)</li> <li>22. Jhansi</li> <li>23. Etawah</li> <li>24. Kanpur Nagar</li> <li>25. Lakhimpur Kheri</li> <li>26. Lucknow</li> <li>27. Raebareli</li> <li>28. Sitapur</li> <li>29. Bulandshahr</li> <li>30. Gautam Buddha Nagar (Noida/Greater Noida)</li> <li>31. Ghaziabad</li> <li>32. Meerut</li> </ol>	<ol style="list-style-type: none"> <li>33. Mirzapur</li> <li>34. Bijnor</li> <li>35. Moradabad</li> <li>36. Muzaffarnagar</li> <li>37. Saharanpur</li> <li>38. Ghazipur</li> <li>39. Jaunpur</li> <li>40. Varanasi</li> </ol> <p><b>Cities in Other States</b></p> <ol style="list-style-type: none"> <li>41. Bhopal</li> <li>42. Dehradun</li> <li>43. Delhi</li> <li>44. Patna</li> <li>45. Ranchi</li> <li>46. Jaipur</li> <li>47. Kolkata</li> <li>48. Mumbai</li> </ol>
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**Examination City Table-II  
(Computer Based Test)  
[For Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10, Paper 11 and Paper 12]**

<ol style="list-style-type: none"> <li>1. Agra</li> <li>2. Aligarh</li> <li>3. Allahabad</li> <li>4. Bareilly</li> <li>5. Ghaziabad</li> </ol>	<ol style="list-style-type: none"> <li>6. Gorakhpur</li> <li>7. Gautam Buddha Nagar (Noida / Greater Noida)</li> <li>8. Jhansi</li> <li>9. Kanpur</li> <li>10. Lucknow</li> </ol>	<ol style="list-style-type: none"> <li>11. Mathura</li> <li>12. Meerut</li> <li>13. Moradabad</li> <li>14. Muzaffarnagar</li> <li>15. Varanasi</li> </ol>
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- (iii) **Candidates are advised to be very careful while giving their options for city of examination centre.** Candidates are advised to choose cities of examination on the basis of the paper he/she has opted from the respective tables i.e **Examination City Table-I** and/or **Examination City Table-II**.

- (iv) In case, candidate has opted papers in such a manner that some of these papers are the OMR based Tests (**Paper 1, Paper 2, Paper 3 and Paper 4**) and some of these papers are Computer based Tests (**Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10, Paper 11 and Paper 12**), the choices for city of examination must be chosen from the **Examination City Table-II only**.

For example,

- (a) If a candidate opts for **Paper 1 only**, he/she should refer to the **Examination City Table-I**.
- (b) If a candidate opts for **Paper 5 only**, he/she should refer to the **Examination City Table-II**.
- (c) **If a** candidate opts for two papers **Paper 1 and Paper 5**, he/ she should refer to the **Examination City Table-II**.
- (v) If any candidate chooses cities of examination where the examination for the paper opted is not being conducted, he/she shall be allotted an examination city from the respective list and same shall be binding upon the candidate.
- (vi) Certain examination cities may be cancelled if sufficient number of candidates does not opt for that city. Request for change of city of examination shall not be entertained under any circumstances.

## **Appendix-F**

अनुसूचित जाति, अनुसूचित जनजाति एवं ओबीसी जातियों के नाम \*

**The list of SC/ST/OBC categories shall be as notified by the Government of Uttar Pradesh as applicable on the day of counselling / admission.**

**The benefit of reserved categories/ subcategories/ rural weightage shall be admissible only upon submission of the required certificate in the format as given in Appendix-D.**

## IMPORTANT DATES

Opening of the link for Filling and Submission of <b>On-Line</b> Application Form form through the website <a href="http://www.upsee.nic.in">http://www.upsee.nic.in</a>	February 24, 2016, 11:00 AM
Last Date for Filling and submitting the On-Line Application Form	March 27, 2016, 05:00 PM
On-Line Partial Correction of filled and submitted On Line Application form through the website <a href="http://www.upsee.nic.in">http://www.upsee.nic.in</a>	From March 28, 2016, 11:00 AM To March 30, 2016, 05:00 PM
Opening of Link for Downloading of the Admit Card from the website <a href="http://www.upsee.nic.in">http://www.upsee.nic.in</a>	From April 08, 2016, 11:00 AM till date of examination
Declaration of UPSEE-2016 Result	On or before May 30, 2016
<p>Note:</p> <ul style="list-style-type: none"> <li>The Application Form can be filled On-Line only through the website <a href="http://www.upsee.nic.in">http://www.upsee.nic.in</a></li> <li>The Confirmation page printed after submission of On-Line Application Form need to be preserved by the candidates. Print-out/ hard copy/ photocopy of Confirmation page or any other document need not be sent to the University.</li> <li>The Admit Card shall be available to the candidates only through the website <a href="http://www.upsee.nic.in">http://www.upsee.nic.in</a></li> </ul>	

## SCHEDULE OF EXAMINATION

Date of Examination	Paper Code	Subjects	Timing (Total Time Period)
17 <sup>th</sup> April, 2016 (Sunday)	Paper 1/	Physics, Chemistry and Mathematics /	10:00 AM to 1:00 PM (3 Hours)
	Paper 2/		
	Paper 3	Physics, Chemistry and Biology /	2.30 PM to 5:00 PM ( 2 Hours 30 Minutes)
	Paper 4	AG-I, AG-II and AG-III Aptitude Test for Architecture	
23 <sup>rd</sup> April, 2016 (Saturday)	Paper 5	Aptitude test for General Awareness (BHMCT/BFAD/BFA)	10:00 AM to 11:30 AM (1 Hour 30 Minutes)
	Paper 6/	Aptitude Test for Diploma Holders in Engg. /	2:30 PM to 4:00 PM (1 Hour 30 Minutes)
	Paper 7/		
	Paper 8	Aptitude Test for B.Sc. Graduates	
24 <sup>th</sup> April, 2016 (Sunday)	Paper 09/ Paper 11	Aptitude Test for MBA/ Aptitude Test for MAM	9:00 AM – 11:00 AM (2 Hours )
	Paper 10	Aptitude Test for MCA	1:00 PM – 3:00 PM (2 Hours )
	Paper 12	Aptitude Test for 2 <sup>nd</sup> Year MCA (Lateral Entry)	4:00 PM –6:00 PM (2 Hours )