शिक्षा
अनुसंधान
नवाचार
समाज के लिए

प्रवेश सूचना विवरणिका

UPRTOU
Learning Beyond Bound

Admission Information Brochure

पी-एच.डी.

Ph.D.

Research
today
for a better
tomorrow

2026-27

॥ सरस्वती नः सुभगा मयस्करत् ॥

उत्तर प्रदेश राजर्षि टण्डन मुक्त विश्वविद्यालय

शान्तिपुरम् (सेक्टर-एफ), फाफामऊ, प्रयागराज-211021

www.uprtou.ac.in

EMPOWERING
LEARNERS
ENRICHING
LIVES



ज्ञान से जन तक
जन से जग तक



Dr. Akhilesh Kumar Singh
Vice-Chancellor
U.P.Rajarshi Tandon Open University
Prayagraj

Message

U.P. Rajarshi Tandon Open University, Prayagraj has been established on 2nd November, 1998 by the Govt. of U.P. with headquarter at Prayagraj. The university strives to fulfill its objectives by a diversity of means of open and distance learning (ODL) system and functions in co-operation with the existing universities and institutions of higher learning based in Uttar Pradesh. This university makes full use of the latest scientific knowledge and ICT to offer a high quality of education, which matches the needs of the day. One of the main objectives of the university is to provide instruction for various branches of knowledge, vocation and profession, along with provision for research. Research and innovations are the bases of any development. Keeping in view, the importance of research in higher education and the constant demand from the stakeholders of the state, the university has taken decision to launch and continue research programmes leading to Ph.D. degree in regular mode in 15 subjects as per UGC norms and regulations-2016 and amendment done from time to time i.e. in 2022 and 2024. In this connection as per U.G.C. permission and direction, necessary Ordinances and Guidelines have been modified and framed up. The Ordinance for research programmes has been considered by the State Govt. of U.P., and accordingly the guidelines have been approved by the Academic Council of the University on the recommendation of the duly constituted committee for this purpose. The university has 12 regional centers and more than 1499 study centers in various districts of Uttar Pradesh and offers various certificate, diploma and degree programmes along with Ph.D. to expand the access of higher education.

This information brochure contains information on eligibility criteria, programme duration, fee structure, admission system and Ph. D. guidelines for the session 2026-27.

I am sure, the research students will able to fulfill the knowledge gap in their respective subject with their research findings and enrich themselves academically and will get benefit in building their career as there will be ample job opportunities after completing the offered Ph.D. Programmes.

Tuesday, 21. 09. 2026

Dr. Akhilesh Kumar Singh
Vice-Chancellor

स्वाध्याय स्वमन्थन स्वावलम्बन

U.P. Rajarshi Tandon Open Univeristy

UPRTOU

Research Programmes

Ph. D.

Admission Brochure–2026-27

Sector-F, Shantipuram, Phaphamau, Prayagraj- 211021

www.uprtou.ac.in

About the University

The Uttar Pradesh Rajaarshi Tandon Open University (UPRTOU) Prayagraj was established in November, 1998 by the Government of Uttar Pradesh to offer a wide range of educational Programmes related to general education, training, research and extension work through open and distance learning for the development of the State; to promote dissemination of learning and knowledge through distance education system to a large segment of the population; and to promote and advance the culture of the people of India and its human resources based on the rich heritage of the State. The concept of open learning and distance mode education system concentrates on providing open access to education and training which has no constraints of time and place. Open and distance learning (ODL)is one of the most rapidly growing fields of education now a days and has substantial impact on all education delivery systems.

The UPRTOU runs its academic activities through a diversity of means of distance and continuing education, and functions in co-operation with the existing universities, colleges and institutions of higher learning, and makes full use of the infrastructure of these organizations to impart education. It uses the latest scientific knowledge and information and communication technology for providing quality education to its students and strengthening the student-support services.

The University started functioning from the session 1999-2000 with 3344 distance learners and during 2025-26 session more than 180,000 distance learners were enrolled in various programmes with the help of more than 1500 Study centres and 12 region centres located in the entire state of Uttar Pradesh. The UPRTOU programmes represent diversified areas of education, training and extension, and the range spans from single subject proficiency to teacher education, management, computer, journalism, information technology, e-business, home science, yoga, Mathematics and science areas. The University has established regional centres for making its activities more effective and convenient to the learners. The University took a judicious decision to follow the principles of collaboration and networking, and therefore adopted some of the programmes from SWAYAM PRABHA, MOOCs and OERs to ensure rich quality of self-learning materials and avoid duplication of efforts.

Based on the experiences gained in the field of ODL system and with the help of university faculty, consultants and part-time resource expertise the university has developed SLM for all programmes. Along with traditional degree and diploma courses, efforts have been made to learners in different programmes are much more than satisfactory. The organization of varied types of extension activities have been a useful feature of this university. On the whole this university has showed an all-round growth and development in extending the facilities of quality distance education in the state of Uttar Pradesh. In fact the **Uttar Pradesh Rajarshi Tandon Open University** has achieved tremendous growth during the very short period of its existence i.e. 27 Years. The university library is equipped with more than 25000 titles, about 10 journals and several important online journals are being subscribed regularly. The success rate of distance learners in UPRTOU ranges from about 40 to 90% and overall success rate has been about 65% during the last few years.

Certain salient features of the University are as following-

(i) The University has three Green and Clean campuses namely; The Ganga Campus (Administration Campus), The Saraswati Campus (Academic Campus and Central Library) and The Yamuna Campus (Residential Campus and Regional Centre).

(ii) The entire educational system is student-centric;

(iii) Self-instructional course material is provided to the students and also uploaded in the University website www.uprtou.ac.in and in OER.

(iv) There is extensive application of ICT in the University such as; Online admission, Online payment, online admit card, online mark sheets, online assignments, online self-instructional course material, mobile messaging, mobile counseling, on-line counseling, video conferencing etc,

(v) There is generally no age bar in admission.

(vi) Many options are available to students regarding completion of the course.

(vii) Student has choice facility to select his/her course of study.

(viii) Any employee serving anywhere can also study through ODL mode of this University.

(ix) The student gets opportunity to take up a Diploma or Certificate course simultaneously while doing degree course from this university or from any other university, and similarly a student can study a Certificate course along with a Diploma course as well.

(x) Organizing seminars, workshops, Training Programmers, Lectures on current and important topics is regular feature of the University.

Counselling is an important activity in distance education and is entirely different from the usual classroom teaching. Counsellors answer to the learners' questions in counselling sessions. Besides clarifying their doubts helping them to overcome difficulties they may face while going through the self-learning materials. Counselling is arranged in such a way that an in service candidate or any other working person can also carry on his/her study without hampering his/her job. Counseling sessions are conducted by efficient and experienced counsellors in accordance with the standards set by the University. Subject-experts from renowned institutions are also invited for the counseling and guidance of students.

The university follows two academic sessions; July to June and January to December, each of which is divided, into two semesters and the admissions are made in both the semesters. To shorten the period of admission process considerably, the online admonition system is being used in the admissions. Except few programmers like B.Ed. B.Ed. (Special Education), MBA, MCA, and Ph.D. University have adopted open admission system. For admission to B.Ed., B.Ed. (Special Education), MBA, MCA and Ph.D. programmes, admission tests are conducted. University has been fully digitalized.

UPRTOU has adopted a three-tier evaluation system, the details of which are furnished below:

(i) Self-Evaluation- In every course/program, a student evaluates every Unit himself/herself. This kind of evaluation has no bearing on the examination results but motivates and helps student for improving his/her study.

(ii) Sessional Assessment- The examiners do continuous evaluation of the home assignments. Besides, the courses having practicals, workshops, seminars, or projects are evaluated separately. Thirty percent Weightage in distribution of marks is given for the sessional assessment in the final examination to determine the overall result.

(iii) Terminal Assessment - The evaluation of a student is done on the basis of his/her performance in the terminal examination. Seventy percent Weightage is given for the terminal assessment in the final examination to determine the overall result.

The examination system of this University is different from those of the conventional Universities. All examinations of this University are based on the semester system. Here a student is declared pass or fail in different papers/courses instead of in the terminal examination as a whole. As such a student gets the credit of all those papers/courses, which he/she completes successfully, and as and when he/she completes all the required papers/courses for the program, the pass marks sheet/ certificate indicating the division, is issued to the student. Every student is given home assignments for each course/program. If a student does not submit completed home assignments within the stipulated period, he/she is not allowed to appear in the Terminal examination of that course/program.

UPRTOU has brought the higher education within the reach of a large segment of population, and caters to the needs of thousands of aspirants of higher education. The motto of the UPRTOU is **"reaching the unreached",** and it aspires to achieve it as early as possible. Thus, the programmes of the University fulfill the educational and training needs of a wide segment of population from the professionally qualified to the general

public, from corporate executives to unemployed youths, and from businessmen to homemakers.

The organization of convocation of the University is the regular feature of University. The First Convocation of the University was held on 25th March, 2004, in which Smt. Girija Devi, the celebrated singer and musician, and Sri. Kunwar Narayan, a famous poet in Indian literature, were conferred with the D. Litt, Degree (Honoris Causa). Prof. P. Ramchandra Rao, the Vice-Chancellor of Banaras Hindu University, delivered the Convocation address, and Prof. Vishnu Kant Shastri Ji, the then Hon'ble Governor of the State, distributed the Gold medals to meritorious students ad degrees and certificates to those students who has successfully completed their course. The University has been publishing its Newsletter named **Mukta Chintan**, since March 2003, offering information about various activities as well as important events and functions taking place here. The University is determined to meet the challenges of higher education as a consequence of changing global perspectives. The ultimate aim of the UPRTOU is to become a virtual University, and a University that can provide opportunity for higher education to thousands of aspirants of the state at their door-steps. The University is striving hard to realize this aim.

Officers of the University:

Designation	Name	Contact No.
Vice-Chancellor	Prof. A. K. Singh	0532-2447028
Registrar	Mr. Vinay Kumar Singh	7525048031
Finance Officer	Smt. Poonam Mishra	7525048006
Controller of Examination	**Registrar**	7525048009

Vision and Mission of the University:

The vision and mission of the Uttar Pradesh Rajarshi Tandon Open University, Prayagraj may be stated as below:

1. To reach the un-reached
2. To universalize the opportunities of higher education
3. To equalize opportunities in higher education

Ph.D. (Doctor of Philosophy)
Admission 2026-27

Note - *U P Rajarshi Tandon Open University, Prayagraj (UPRTOU) announces Admission to PhD (Regular mode) Programme 2026 session. The registration for the Ph. D. programme shall be made through the combined merit of NTA or equivalent to NTA exam marks or an entrance test marks conducted by the University and the marks obtained in the interview. The interview will be organized by the concerned school of studies. The process and schedule of registration shall be prepared and announced by the University in accordance with the guidelines given by the Academic Council from time to time. Apply online for admission & Ph.D. entrance test* ***till October 14, 2026 and October 21, 2026 with late fee****. Check out the details of eligibility criteria, selection process, application fee, online application form, syllabus for entrance test etc. on the University website -* **www.uprtou.ac.in***. Applicants are also advised to see the UPRTOU Ph. D. Guidelines & Ordinance available on the University website www.uprtou.ac.in. For any ambiguity in this information brochure the UPRTOU Ph. D. Guidelines & Ordinance shall be final.*

IMPORTANT DATES FOR ADMISSION IN Ph. D. & Ph. D. ENTRANCE TEST

Particulars	Proposed Dates
Dates for Online Application & Deposition of Application Fee & Entrance Examination Fee through University website	**September 15 to October 14, 2026**
Dates for Online Application & Deposition of Application Fee & Entrance Examination Fee through University website with late fee	**October 15 to October 21, 2026**
Online Application Form correction period	**October 22 to October 27, 2026**
Availability of Entrance Test Admit Cards on the University Website	**October 30, 2026**
Date of Ph. D. Entrance Test - 2026	**November 05, 2026**
Declaration of Ph.D. Entrance Test Result on the University Website	**November 07, 2026**
The University Website www.uprtou.ac.in	

APPLICATION & ENTRANCE EXAMINATION FEE

(1)	**Ph.D. Application fee for Entrance Test Exempted Candidates**	**Rs. 1000.00**	**For all Except SC/ST**
		Rs. 500.00	**For SC/ST Applicants**
(2)	**Ph.D. Application fee with late payment for Entrance Test Exempted Candidates**	**Rs. 1500.00**	**For all Except SC/ST**
		Rs. 750.00	**For SC/ST Applicants**
(3)	**Ph.D. Application and Entrance Test fee**	**Rs. 2000.00**	**For all Except SC/ST**
		Rs. 1000.00	**For Applicants SC/ST**
(4)	**Ph.D. Application and Entrance Test fee with late payment**	**Rs. 2500.00**	**For all Except SC/ST**
		Rs. 1500.00	**For Applicants SC/ST**

The candidate will have to pay the applicable fee via online mode only i.e. via **Net Banking/Credit Card/Debit Card** etc. This fee will be Non-refundable.

APPLICATION PROCEDURE

U. P. Rajarshi Tandon Open University, Prayagraj has released notification for the eligible candidates for admission into Ph.D. (Regular Mode) programme for the academic session 2026-27. One can register and apply online only. There is no any other option to apply for **Ph. D. admission and entrance test**. The Online Link for Ph.D. Entrance Portal is available only through **www.uprtou.ac.in.** Candidates can follow the below mentioned steps to fill the UPRTOU Ph.D. **admission application form :**

Step 1	The candidate will have to visit the official website of UPRTOU i.e. **www.uprtou.ac.in** to register and apply online.
Step 2	On visiting the homepage of UPRTOU, you will have to search for the link ***Online Ph. D. admission and Entrance Test 2026-27.***
Step 3	On clicking the link, the candidate will be directed to a new page and will have to click on the link 'Click Here for Registration'.
Step 4	Once it is open, now you will have to fill up all the required information such as personal and academic details.
Step 5	Once all the details are filled, you are required to upload desired scanned documents, images of your passport-sized photograph and signature. The image should be in JPG/JPEG format and its size should not exceed as per mentioned size.
Step 6	After the images have been successfully uploaded, you have to proceed for payment of the application fee and entrance fee if applicable as mentioned in application and entrance test fee title of this brochure.
Step 7	Once the payment has been made, you will receive a confirmation e-mail and an SMS on the registered mobile number.
Step 8	After all the due formalities are completed, candidates are advised to take a print out of the confirmation page as it will come handy for future purposes.
Step 9	If there is any correction required in filled information's, the candidate will be able to correct them in the prescribed correction period as mentioned in important date's title of this brochure.

ELIGIBILITY CRITERIA

The eligibility criteria for admission to **Ph.D. Programme** are -

Candidates who have completed: First year/2 semester master's degree programme after a 4–year/8 semester bachelor's degree programme or a 2 year/4 semester master's degree programme after a 3-year bachelor's degree programme or qualifications declared equivalent to the master's degree by the corresponding statutory regulatory body, with the least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in the country to assess, accredit or assure quality and standards of the educational institution. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/ Differently-abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time. Provided that a candidate seeking admission after a 4- year/8 semester bachelor's degree programme should have a minimum of 75% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/ Differently-abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the UGC from time to time.

Or

Candidates who have completed the M. Phil. Programme with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory, authority in that country to assess, accredit or assure quality and standards or educational institutions, shall be eligible for admission to the Ph.D. programme. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/ Differently-abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the UGC from time to time.

Ph.D. PROGRAMME OFFERED

Uttar Pradesh Rajarshi Tandon Open University, Prayagraj has offered Ph.D. programme (Regular Mode) in various subjects for academic session 2026-27. The subjects, subject code for the particular subject and number of seats are given below-

Subjects	Sub.code	No. of Available Seats for 2026-27
Computer Science	001	SC-03, OBC-01, UR-02, EWS-03
Nutrition Food and Dietetics	003	01 EWS
Political Science	006	OBC-01
Commerce	007	OBC-01
Business Administration and Business Management	008	OBC-02, UR-01
Education	009	UR-01
Sanskrit and Prakrit Language	010	UR-01
Statistics	011	OBC-03, UR-01
Hindi and Modern Indian Language	013	UR-01
Ancient Indian History and Archaeology	015	UR-01
Mathematics	016	SC-02, OBC-02, UR-03, EWS-01
Zoology	017	SC-01, OBC-02, UR-03

Note: (1) The No. of Available Seats as mentioned above may be increased or decreased or cancelled as per availability of Eligible Research Supervisors or as per University Policy/Decision.

(2) Reservation rules/policy of U.P. Govt. will be followed for Ph.D. admission.

(3) Vertical and horizontal reservation rules/policy of U.P. Govt. will be implemented as per availability of seats in the particular subject under 100 point's roster rule.

DURATION OF Ph.D. PROGRAMME

The UPRTOU Ph.D. programme shall be for a minimum duration of three years, including course work and a maximum of six years duration except the conditions of UPRTOU Ph. D. Guidelines 12.3.

ENTRANCE TEST PROCEDURE

There will be an objective type question paper of one and half hour duration (90 minutes) in Pre-Ph.D. Entrance Test containing 70 Multiple Choice Answer questions. The items of the Entrance Test will consist of 50% of research methodology and 50% will be subject specific. The Entrance Test syllabus is mentioned in the next pages of this information brochure. The Entrance test will be conducted at the University campus or examination centre(s) situated in

Prayagraj city only as per number of examinees. The candidates can download their Admit card of UPRTOU Ph.D. entrance test session 2026-27, from the University website www.uprtou.ac.in from **October 14, 2026.**

SELECTION PROCESS FOR ADMISSION

The JRF/NET/Equivalent test qualified/appeared Candidates or the candidates who will meet the required cut off of the Entrance Test will be called for an interview. The overall merit list would be prepared on the basis of JRF/NET/Equivalent test scores or marks obtained in the written test and interview.

STEPS OF SELECTION PROCESS :

<table>
<tr><td>Step I :
<u>Ph.D. Entrance Test</u></td><td colspan="3">Category-1: (NET with JRF or Equivalent Qualified Candidates)
Exempted from Entrance Test
Category-2: (Only NET or Equivalent Qualified Candidates in the Current year)
Exempted from Entrance Test
Category-3: (NET or Equivalent Exam Qualified for Ph. D. Admission Candidates in the Current year)
Exempted from Entrance Test
Category-4: (Other than Category 1, 2 & 3 Candidates)
UPRT Open University Ph.D. Entrance Test will be merely qualifying for selection process to Ph.D. Programme. For this the candidates are required to obtain the minimum 50 percent marks on the Entrance Test to be conducted. A relaxation of 5% of marks (from 50% to 45%) shall be allowed for the candidates belonging to SC/ST/OBC (Non –creamy Layer)/Differently-abled category and other categories of candidates as per the decision of UGC from time to time</td></tr>
<tr><td>Step II : <u>Interview</u>
All Candidates of Category 1, 2, 3 and Qualified candidates of category 4</td><td colspan="3">A research proposal in the area of research interest of the applicant’s which will be submitted to the interview board. A power point presentation of the said research proposal by the applicant must be presented before the interview board. The presentation of tentative synopsis followed by an Interview shall be organized by the concerned school of studies. Candidates must bring all the relevant documents during interview.</td></tr>
<tr><td><u>Merit List Preparation</u></td><td colspan="3">As per availability of seats, admission for Ph.D. Program shall be given to the candidates on the basis of merit list. The reservation policy of Uttar Pradesh State Government will be followed in admission and other process. Amongst those candidates who have cleared Step-I, and Step II a merit list in 100 Points comprise of 70 % Scores of JRF/NET/Equivalent Exam or Entrance Test scores, and Scores on presentation of tentative synopsis followed by an Interview shall be prepared subject-wise and category-wise. Break–up of 100 Merit Base Points shall be as below:</td></tr>
<tr><th>S.N.</th><th>Particulars</th><th>Maximum Marks</th><th>Maximum Point</th></tr>
<tr><td>1.</td><td>UGC-JRF/NET or Equivalent in the Concern Subject Scores or Entrance Test</td><td>70 percent of JRF/NET Exam Scores</td><td>70</td></tr>
<tr><td>2.</td><td>Presentation of Tentative Synopsis through PPT
and Interview</td><td>30</td><td>30</td></tr>
<tr><td></td><td>Total</td><td>100</td><td>100</td></tr>
</table>

The presentation of tentative synopsis followed by an Interview shall be organized by the concerned school of studies. The reservation rules/policy of U.P. Govt. will be followed for admission. Vertical and horizontal reservation rules/policy of U.P. Govt. will be implemented as per availability of seats in the particular subject under 100 point's roster rule. If there is no eligible or selected candidate available in a particular category of reservation, the backlog will followed for the coming session only and after that those seats will convert and filled with open category.

Note: (1) ***In case of a tie, the first preference will be given to the candidate who secures higher percentage of marks in PG examination. If the marks secured in PG, UG, 12 class and 10 class marks are also same, then in that case the older candidate will be given priority.***

(2) ***The merit list would be displayed on the University website.***

REGISTRATION

1- After selection in the combined merit (the JRF/NET or equivalent test/Entrance Test Scores and Interview Scores) announced by UPRT Open University the candidate shall be admitted to Pre-Ph. D. course work and after approval of research title and supervisor the candidate shall be provisionally enrolled for Ph. D. program. The successful completion of the Pre-Ph. D. course work shall be treated as prerequisite for Ph. D. Programme.

2- The selected candidates already holding M. Phil. Degree and having cleared the M. Phil Course work with at least 55% marks in aggregate and admitted to the Ph. D. Programme shall be eligible to proceed to do research work leading to Ph. D. degree. All other candidates admitted to the Ph. D. Programme shall be required to complete the Pre-Ph. D. course work prescribed by the concerned School of Studies. A relaxation of 5% of marks, from 55% to 50% may be allowed for those belonging to SC/ST/OBC (Non creamy layer)/ differently–abled and other categories of candidates as per decision of the U.G.C. from time to time.

3- There shall be two categories of Ph. D. candidates: **Full-time and Part-time**. Part time Ph. D. will be allowed provided all the conditions mentioned in the extant of Ph. D. ordinance are met. All those who are offered a fellowship by the University or by any other agency and registered with the University to pursue a research degree programme of the University shall belong to the category of full-time candidates. In other cases, the Research Degree Committee may allow registration of **full-time candidates** who do not have fellowships. The full –time candidates shall work on their projects at Prayagraj. Candidates who are employed and desirous of pursuing a research degree programme may be permitted to register as **part- time candidate**. Ordinarily, teachers and other staff while continuing on their jobs shall belong to this category. But such candidates have to devote not less than 200 days with the supervisor for his/her research work and the University shall obtain a **"No Objection Certificate (NoC)"** through the candidates for a part-time Ph. D. programme from the appropriate authority in the organization where the candidate is employed, clearly, stating that:

a. The candidate is permitted to pursue studies on a part-time basis.
b. His/her official duties permit him/her to devote sufficient time for research.
c. If required, he/she will be relieved from the duty to complete the course work

.

4- All registrations to Ph. D. Programmes shall be provisional and the same shall be confirmed according to the procedures prescribed by the Academic Council from time to time.

5- After declaration of step III result, a candidate, who has been offered admission for Ph. D. Programme shall deposit the prescribed Pre-Ph. D. course work fee within a prescribed period and the programme

fee with registration fee within a period of six weeks from the date of approval of **research title** and **research supervisor**, failing which his/her admission may be treated as cancelled. However, a candidate who has been registered for Ph. D. Programme **the Ph. D. registration of a candidate may be cancelled for any of the following reasons:**

(i) Non-payment of fees within due date
(ii) Unsatisfactory progress of research
(iii) Non-compliance with the provisions of the ordinances
(iv) Non-completion of Pre-Ph. D. course work
(v) Failure to submit the Ph. D. Thesis within the time limit prescribed.

6. The Research Degree committee may consider requests for **re-registration** from candidates whose registration is cancelled. An application for re- registration, if made within a period not exceeding one year from the cancellation of thecandidate's registration, may be considered only on the recommendation of the Director concerned.
7. Except fee for registration all other fees prescribed by the University shall always be charged on annual basis or as decided by the university from time to time.

COURSE WORK

The Course work for Ph.D. program is of 16 credits. A student shall be deemed to have completed his/her course work successfully if he/she obtains a minimum of 50% marks in each internal and external assessment separately and 55% of marks aggregate in the course work in order to be eligible to continue in the programme. A relaxation of 5% of marks, from 55% to 50%may be allowed for those belonging to SC/ST/OBC (Non creamy layer)/ differently–abled and other categories of candidates as per decision of the U.G.C. from time to time. In each theory paper of Ph.D. Course work, 30% of the total marks shall be assigned for the sessional assessment, while rest 70% marks will be assigned through written Examination.

FINAL SYNOPSIS

The Three copies of synopsis duly forwarded by the proposed supervisor and Joint-supervisor (if any) have to be submitted between 3 to 6 months from the date of Research Degree Committee (RDC). Each page of the synopsis must be signed by the candidate and the supervisor both. The synopsis must include (i) the title of the problem (ii) the need of study (iii) the review of the related literature (iv) the methodology (v) the data sources (vi) the chapter plan and(vii) the bibliography.

THE FEE STRATURE FOR Ph.D. PROGRAMME

SN	Details of Fee	Proposed Fee	Specifications
(1)	Application Processing fee for **(Entrance Test Exempted Candidates)**	Rs. 1000.00	(Not Refundable)
		Rs. 500.00	For SC/ST Applicants (Not Refundable)
(2)	Application Processing fee with late payment for **(Entrance Test Exempted Candidates)**	Rs. 1500.00	(Not Refundable)
		Rs. 750.00	For SC/ST Applicants (Not Refundable)
(3)	Application Processing fee for **(Entrance Test Appearing Candidates)**	Rs. 2000.00	(Not Refundable)
		Rs. 1000.00	For SC/ST Applicants (Not Refundable)
(4)	Application Processing fee with late payment for	Rs. 2500.00	(Not Refundable)
		Rs. 1500.00	For SC/ST Applicants

	(Entrance Test Appearing Candidates)		(Not Refundable)
(5)	Ph.D. Programme Registration fee	Rs. 3000.00	Once (Not Refundable)
(6)	Ph.D. Programme fee	Rs. 20,000.00	Per Annum (Refundable)*
(7)	Late payment for Ph.D. Programme fee	10% of Programme fee	Per Annum (Not Refundable)
(8)	Admission with Exam fee for Pre-Ph.D. Course Work	Rs. 10,000.00	Once (Refundable)*
(9)	Pre-Ph.D. Course Work Back Paper fee, **if required**	Rs. 2000.00	Per Paper (Not Refundable)
(10)	Pre-Submission Viva fee for **final submission of Ph. D. Thesis**	Rs. 10,000.00	At the time of request for Pre-Submission Viva (Not Refundable)
(11)	Re-Pre Submission Viva fee for **final submission of Ph. D. Thesis**	Rs. 3000.00	For each Re-Pre Submission Viva (Not Refundable)
(12)	Evaluation of Thesis and viva voce fee	Rs. 15,000.00	At the time of Submission of Thesis Once (Not Refundable)

Or

As determined by the Academic Council from time to time. The fees shall be payable on such dates and such mode as may be notified from time to time.

POLICY FOR Ph.D. PROGRAMME FEE REFUND*

Category	% of Refund of Fees*	Point of time when notice of Withdrawal of admission/registration is received in the University
(1)	100%	15 days or more **before** the formally notified last date of admission/registration
(2)	90%	Less than 15 days **before** the formally notified last date of admission/registration
(3)	80%	15 days or less **after** the formally notified last date of admission/registration
(4)	50%	30 days or less, but more than 15 days **after formally** notified last date of admission/registration
(5)	00%	More than 30 days **after** formally notified last date of admission/registration

Syllabus (पाठ्यक्रम)

PART- A:

RESEARCH METHODOLOGY

शोध विधि

(Compulsory for All Applicants)

(i) Research aptitude and research ethics.

(ii) Meaning, Scope and Aims of Research, steps of Scientific Method, Types of Scientific Method (Exploratory, Explanatory and Descriptive), Types of research (Fundamental, Applied and Action), Approaches to educational research (Quantitative, Qualitative and Blended), Designs in research (Descriptive, Experimental and Historical).

(iii) Research Problem : Meaning, need, sources of selection of Research Problem, Characteristics of a good research Problem

(iv) Variables: Meaning of Concepts, Constructs and Variables, Types of Variables (Independent, Dependent, Extraneous, Intervening and Moderator).

(v) Hypotheses - Concept, Sources, Types (Directional, Non-directional, Null), Formulating Hypothesis, Characteristics of a good hypothesis.

(vi) Concept of Universe and Sample, Characteristics of a good Sample, Techniques of Sampling (Probability and Non-probability Sampling).

(vii) Research Tools: Types (Rating scale, Attitude scale, Questionnaire, Schedule, Aptitude test and Achievement Test, Inventory etc.), Characteristics of a Good research tool, Techniques of Research (Observation, Interview and Projective Techniques)

(viii) Data : Types and Sources

(ix) ICT in Research: General abbreviations & terminology, Basics of internet & e-mailing, Social networking and search engines, Software for Data analysis and interpretation for research purposes.

(x) Meaning, aims, importance and sources of Review of Literature

(xi) Methods of writing Bibliography and References

(xii) Preparation of Research Proposal

(xiii) Basics of Research Report Writing.

(xiv) Structure of the Institutions for Higher Learning and Research in India.

(xv) Latest Policies and trends in research.

(i) अनुसंधान अभिक्षमता और अनुसंधान नैतिकता

(ii) अनुसंधान का अर्थ, कार्यक्षेत्र और उद्श्य, वैज्ञानिक विधि के चरण, वैज्ञानिक विधि के प्रकार (खोजपूर्ण, व्याख्यात्मक और वर्णनात्मक), अनुसंधान के प्रकार (मौलिक, अनुप्रयुक्त और क्रिया),

शैक्षिक अनुसंधान के उपागम (मात्रात्मक, गुणात्मक और मिश्रित), अनुसंधान में अभिकल्प (वर्णनात्मक, प्रायोगिक और ऐतिहासिक)

(iii) **अनुसंधान समस्या** : अर्थ, आवश्यकता, अनुसंधान समस्या के चयन के स्रोत, एक अच्छे शोध समस्या के लक्षण

(iv) **चर** : अवधारणाओं का अर्थ, रचना और चर, चर के प्रकार (स्वतंत्र, आश्रित, वाह्य हस्तक्षेपी और मध्यस्थ।

(v) **परिकल्पना**– अवधारणा, स्रोत, प्रकार (दिशात्मक, गैर–दिशात्मक, शून्य), परिकल्पना निर्माण, एक अच्छी परिकल्पना के लक्षण

(vi) जनसंख्या और न्यादर्श की अवधारणा, एक अच्छे न्यादर्श की विशेषताओं की तकनीक (संभावना और गैर–संभाव्यता नमूनाकरण

(vii) **अनुसंधान उपकरण** : प्रकार (निर्धारण मापनी, अभिवृत्ति मापनी, प्रश्नावली, अनुसूची, अभिक्षमता परीक्षण और उपलब्धि परीक्षण सूची आदि), एक अच्छे शोध उपकरण की विशेषतायें, अनुसंधान की प्रविधियॉ (अवलोकन, साक्षात्कार और प्रक्षेपीय तकनीक)

(viii) समंक : प्रकार और स्रोत

(ix) अनुसंधान में सूचना एवं जनसंचार तकनीकी : सामान्य संक्षिप्ताक्षर और शब्दावली, इंटरनेट और ई–मेलिंग की मूल बातें, सोशल, नेटवर्किंग और खोज इंजन, समंकों के विश्लेषण और व्याख्या के लिए सॉफ्टवेयर

(x) सम्बन्धित अनुसंधान साहित्य सर्वेक्षण का अर्थ, उदेश्य, महत्व और स्रोत

(xi) सन्दर्भ और सन्दर्भ ग्रन्थ सूची लेखन की विधियॉ।

(xii) अनुसंधान प्रस्ताव तैयार करना

(xiii) अनुसंधान आख्या लेखन की मूल बातें

(xiv) उच्चतर शिक्षा संस्थाओं की संरचना और भारत में अनुसंधान

(xv) अनुसंधान में नवीनतम नीतियां और प्रवृत्तियां

PART- B: SUBJECT SPECIFIC

Note : ***The Subject specific syllabi for core subject intend to test the subject/concept mastery of the candidate in the respective subject. The candidate can chose any one of the following subject syllabi according to their applied Ph. D. subject.***

Subject: Computer Science (001)
विषय : कम्प्यूटर विज्ञान

Discrete Mathematics

- Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Groups. Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions.

Probability

- Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem.

Digital Logic

- Boolean algebra. Combinational and sequential circuits. Minimization. Number representations and computer arithmetic (fixed and floating point).

Computer Organization and Architecture

- Machine instructions and addressing modes. ALU, data-path and control unit. Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).

Programming and Data Structures

- Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.

Algorithms

- Searching, sorting, hashing. Asymptotic worst case time and space complexity. Algorithm design techniques: greedy, dynamic programming and divide-and-conquer. Graph search, minimum spanning trees, shortest paths.

Operating System

- Processes, threads, inter-process communication, concurrency and synchronization. Deadlock. CPU scheduling. Memory management and virtual memory. File systems.

Databases

- ER-model. Relational model: relational algebra, tuple calculus, SQL. Integrity constraints,normal forms. File organization, indexing (e.g., B and B+ trees). Transactions and concurrency control.

Computer Networks

- Concept of layering. LAN technologies (Ethernet). Flow and error control techniques, switching. IPv4/IPv6, routers and routing algorithms (distance vector, link state). TCP/UDP and sockets, congestion control. Application layer protocols (DNS, SMTP, POP, FTP, HTTP). Basics of Wi-Fi. Network security: authentication, basics of public key and private key cryptography, digital signatures and certificates, firewalls.

Subject: Nutrition Food & Dietetics (003)
विषय : न्यूट्रोशन, फूड एण्ड डाइट्रेटिक्स

FOOD SCIENCE-

- Introduction to food science-evolution of food industry and allied industries.
- Understanding food groups for balanced diet, structure, composition, nutritive value and processing techniques of cereals, pulses and legumes, fruits and vegetables, nuts and oil seeds, milk and milk products, egg meat and fish.
- Food additives, food colour, emulsifiers, stabilizers and flavours.
- Food fortification, enrichment and supplements.
- Food spoilage and food poisoning.

NUTRITION AND DIETETICS

- Nutrition in food, their function, requirements, sources, digestion absorption and utilization. Effect of low and excess intake of nutrients on human body,
- RDA for different age sex and activities, methods of assessment of nutritional status.
- Nutrition during life span- growth and development, nutritional requirement, nutritional problems, feeding patterns and special needs of-

• Infancy	• School age and adolescents	• Preschool age
• Adults and elderly	• Pregnancy and lactation	

- Therapeutic modification of normal diet, special feeding methods.
- Causes, symptoms and principles of dietetic management of-

• Fevers	• Peptic ulcer	• Gastritis, diarrhea and constipation
• Jaundice and hepatitis	• Cardiovascular diseases	• Nephritis and renal disorders
• Gout	• Arthritis	• Diabetes mellitus
• Obesity and under weight	• Cancer	•

- Nutritional management of eating disorders- anorexia nervosa, bulimia and binge eating.

COMMUNITY HEALTH-

- National and international agencies and various programs dealing with nutrition of community in India.
- Nutritional problems in India.
- Contagious diseases- causes, symptoms, prevention and management of-

• COVID-19	• Influenzas
• Meningitis	• Sexually transmitted diseases
• Tuberculosis	• Ebola
• AIDS	• Measles

- Mental Health and Psychological disorders- nature, etiology, symptoms and management of-

Anxiety disorders- panic phobias generalized anxiety disorder, obsessive compulsive disorder, Conversion and dissociate disorder, Schizophrenia and paranoid, Mood disorders, Personality disorders

- Nature of psychotherapy- psychodynamic therapy, aversions therapy, cognitive behaviour therapy, gestalt therapy, psychodrama, sensitivity training.
- Infectious Disorders
- Health and hygiene

Subject: Journalism & Mass Communication (004)
विषय : पत्रकारिता एवं जनसंचार

- **संचार** –अर्थ, परिभाषा, प्रक्रिया, तत्व, आवश्यकता व महत्व, संचार के प्रकार, संचार के माडल, जनसंचार के विभिन्न स्कूल और सि(ांत ।
- **जनसंचार आर विकास**– विकास की अवधारणा, अर्थ, परिभाषा, विकास संचार का अर्थ, अवधारणा व स्वरूप।
- **अन्तर्राष्ट्रीय संचार**–नई विश्व संचार व्यवस्था, विकसित एवं विकासशील देश, मैकब्राइड आयोग, भारत एवं न्यूको, प्रमुख भारतीय और अन्तर्राष्ट्रीय समाचार समितियाँ, अन्तर्राष्ट्रीय प्रिन्ट एवं इलेक्ट्रानिक मीडिया।
- **पत्रकारिता**– अवधारणा, अर्थ, परिभाषा, हिन्दी पत्रकारिता का उद्भव और विकास भारत और विश्व के समाचार पत्र और पत्रकारिता के विविध रूप, पत्रकारिता का वर्तमान परिवेश, दायित्व, प्रशिक्षण, भाषायी पत्रकारिता की भूमिका,भाषायी पत्रकारिता का भविष्य, स्वातन्त्रयोत्तर भारत में हिन्दी पत्रकारिता का स्वरूप,हिन्दी पत्रकारिता और बदलते मूल्य, वर्तमान प्रमुख समाचार पत्र।
- **विविध जनमाध्यम**–पारम्परिक लोक माध्यम की अवधारणा, मुद्रित माध्यम , रेडियो दूरदर्शन, इलेक्ट्रानिक मीडिया, फिल्म औरफोटो पत्रकारिता ।
- **कम्प्यूटर और इन्टरनेट**–कम्प्यूटर और इंटरनेट का इतिहास एवं विकास,सूचना प्रौद्योगिकी की अवधारणा, न्यू मीडिया का अर्थ, एवं उपयोगिता, महत्वपूर्ण वेबसाइट।
- **मीडिया और समाज** – मीडिया और वैश्वीकरण, मीडिया साम्राज्यवाद, मीडिया और मानवाधिकार, पर्यावरण एवं मीडिया, मीडिया और संस्कृति, सोशल मीडिया के दौर में मीडिया की चुनौतियाँ।
- **प्रेस विधि**– भारतीय संविधान का संक्षिप्त परिचय : प्रस्तावना, मूलअधिकार एवं कर्तव्य, राज्य नीति निदेशक तत्व, स्वतंत्र भारत में प्रेस कानून, प्रेस आयोग, प्रेस परिषद् एवं आचार संहिता।
- **जनसंपर्क,विज्ञापन और विपणन**–जनसम्पर्क, जनमत, प्रचार एवं विज्ञापन, बाजार अनुसन्धान एवं विपणन अनुसंधान, मीडिया प्रबन्धन, विज्ञापन नीति, विज्ञापन में नैतिकता, विज्ञापन हेतु आचार संहिता।
- **मीडिया के सामाजिक दायित्व**– मीडिया और रोजगार, उपभोक्तावाद, महिला सशक्तीकरण,
- पर्यावरण संरक्षण, सामाजिक असामनता, आर्थिक विषमता, आधुनिक परिवेश में स्वास्थ्य चुनौतियाँ, ग्रामीण विकास की नीतियाँ एवं चुनौतियाँ, वर्तमान सामाजिक, सांस्कृतिक एवं राजनीतिक परिप्रेक्ष्य में मीडिया की भूमिका ।
- **सरकारी एवं गैर सरकारी मीडिया संगठन**–परिचय एवं कार्यप्रणाली।
- **मीडिया और शिक्षा**–दूरस्थ शिक्षा व्यवस्था में मीडिया की भूमिका, उच्च शिाक्षा एवं दूरस्थ शिक्षा प्रणाली की आवश्यकता एवं महत्व।
- **मीडिया की समसामयिक स्थिति और सामान्य ज्ञान**–सम सामायिक घटनाओं पर आधारित ज्ञान एवं वर्तमान परिदृष्य में मीडिया की स्थिति।
- **Communication –** Meaning, definition, process, elements, need and importance, types of communication, models of communication, different schools and theories of mass communication.
- **Mass communication and development-** concept, meaning, definition of development, meaning, concept and nature of development communication.
- **International Communication –** New World information order, Developed and Developing Countries, McBride Commission, India and Newco, Major Indian and International News Agencies, International print and electronic media.

- **Journalism-** Concept, Meaning, Definition, Origin and Development of Hindi Journalism and Newspapers of India and world ,various forms of journalism, present Scenario of journalism, responsibilities, training, role of linguistic journalism, future of linguistic journalism, nature of Hindi journalism in post-independence India, Hindi journalism and changing values, current major newspapers.
- **Various mass media -** concept of traditional folk media, print media, radio, television, electronic media, film and photo journalism.
- **Computer and Internet:** History and development of Computer and Internet, Concept of Information Technology, Meaning and utility of New Media, Important websites.
- **Media and Society -** Media and Globalization, Media Imperialism, Media and Human Rights, Environment and Media, Media and Culture, Challenges of Media in the age of Social Media.
- **Press Law-** Brief Introduction to Indian Constitution: Preamble, Fundamental Rights and Duties, Directive Principles of State Policy, Press Law in Independent India, Press Commission, Press Council and Code of Conduct.
- **Public Relations, Advertising and Marketing -** public relations, public opinion, publicity and advertising, market, Research and Marketing Research, Media Management, Advertising Policy, Ethics in Advertising, Code of Conduct for Advertising.
- **Social Responsibilities of Media-** Media and Employment, Consumerism, Women Empowerment, Environmental protection, social inequality, economic disparity, health challenges in modern Scenario , policies and challenges of rural development, role of media in current socio-cultural and political perspective.
- **Government and non-government media organizations-** introduction and functioning.
- **Media and Education -** Role of media in distance education system, need and importance of higher education and distance education system.
- **Current Status of Media and General Knowledge-** Knowledge based on current events and status of media in current scenario.

Subject: Medieval & Modern History (005)
विषय : मध्ययुगीन और आधुनिक इतिहास

मध्यकालीन एवं आधुनिक भारतीय इतिहास एवं उसके स्रोत

इकाई प्रथम : सल्तनत कालीन भारत – 1206 से 1707 ई0 तक ;विस्तार एवं सुदृढ़ीकरणद्ध

- विजयनगर एवं बहमनी साम्राज्य, राजपूत साम्राज्य, मराठा साम्राज्य, शेरशाह का शासन– प्रशासन एवं आर्थिक सुधार।
- राज्य एवं धर्म।
- आर्थिक स्वरूप।
- प्रशासनिक ढ़ाँचा।
- कला, साहित्य एवं वास्तु कला।

इकाई द्वितीय :हसन निजामी–ताजुल मआसीर, मिनहाज–तबकाते नासिरी, अमीर खुसरो–ऐतिहासिक ग्रन्थ, जियाउद्दीन बरनी–तारीखे फीराजशाही, फतवा–ए–जहाँदारी।

- बाबर–बाबरनामा, अबुल फजल–अकबरनामा, आईने अकबरी, बदायूँनी–मुन्तखाब उत् तवारीख।
- खाफी खाँ–मुन्तखब–उल–लुवाब, यात्रा वृत्तान्त–इब्नेबत्तूता, बर्नियर।
- भक्ति साहित्य–कबीर एवं तुलसीदास।

इकाई तृतीय : ब्रिटिश शासन का सुदृढ़ीकरण।

- आर्थिक एवं सामाजिक नीति।
- राष्ट्रीय आन्दोलन एवं स्वतंत्रता के बाद भारत।

इकाई चतुर्थ : अभिलेखागार–राष्ट्रीय अभिलेखागार, क्षेत्रीय अभिलेखागार, रियासती

- अभिलेखागार, विदेशों में स्थित अभिलेखागार।
- **समकालीन** संस्मरण–यात्रियों के, प्रशासकों के, मिशनरियों के संस्मरण, डायरी, भाषण एवं लेखन–महात्मा गांधीजी, नेताजी सुभाषचन्द्र बोस, पं0 जवाहर लाल नेहरू तथा भीमराव अम्बेडकर।
- **समकालीन समाचार पत्र**–पत्रिकाएँ एवं गजेटियर, जनगणना, विभिन्न कम्पनी रिकार्ड्स।
- **मौखिक स्रोत**–लोक गीत, लोककथाएँ, लोकोक्तियाँ, समकालीन प्रमुख साहित्य।

इकाई पंचम : इतिहास में शोध की आधुनिक पवृत्तियाँ एवं प्रमुख आयाम

- वस्तुपरक एवं विषयपरक शोध, सै(ान्तिक अध्ययन।
- साम्राज्यवादी/औपनिवेशिक दृष्टिकोण, राष्ट्रवादी दृष्टिकोंण।
- वामपंथी एवं उपाश्रयी प्रवृत्तियाँ, एकीकृत इतिहास लेखन।
- नवीन राजनीतिक, सामाजिक, आर्थिक, धार्मिक एवं सांस्कृतिक आयाम
- क्रांतिकारी एवं प्रगतिवादी आन्दोलन, जेंडर स्टडी, दलित, आदिवासी, विज्ञान एवं तकनीक, पर्यावरण आदि।

UNIT- I: Indian during the Sultante 1206 to 1707 AD (Expansion and Consolidation)

- Vijaynagar and Bahamani Empire, Rajput Empire, Maratha Empire, Sher Shah's Rule-Administration and financial improvement.
- State and Religion
- Economic Nature
- Administrative setup.
- Art, literature and architecture.

UNIT- II: Hansan Nizami - Tajul Maasir, Minhaj - Tabcate Nusiri Amir Khusrau Historical texts, Ziauddin Barani - Tarikh Firozsahi, Fataula-i-Jahandari

- Babur, Babarnama, Abul Fazal Akbarnama, Aine Akbari, Badayni, Muhtkhab-ul-Luwab, Travellers accounts, Ibnbattuta, Bernier.
- Khafi Khan
- Devotion literature - Kabir & Tulsidas.

UNIT- III: Consolidation of British Rule

- Economic and Society Policy
- National Movement and Indian after Independence

UNIT- IV: Archives - National Archives, Regional Archives, State Archives, Riyaasati (Princely State)

- Archives, archives located abroad
- Contemporary memories, diaries, speeches and writings of missionaries, administrators of travlers.
- Mahatma Gandhi Ji, Netaji Subhas Chandra Bose, Pandit Jawahar Lal Nehru and Bhimrao Ambedkar.
- Contemporary newspapers - magazines and gazetteers, census various company records.
- Oral sources - folk songs, folktales, Proverbs, contemporary major literature.

UNIT- V: Modern trends and major dimensions of research in History.

- Objective and subjective research, theoretical studies. Imperialist/colonial approach, Nationalist approach.
- Leftist and subaltern tendencies, Integrated histotiography.
- New Political, Social, economic, religious and cultural dimensions.
- Revolutionary and progressive movements, gender studies, dalits, tribals, science and technology, Environment etc.

Subject: Political Science (006)

विषय : राजनीति विज्ञान

इकाई–1

1. **राजनीतिक चिन्तन एवं सि(ान्त, पाश्चात्य चिन्तन** : प्लेटो, अरस्तू, ऑगस्टीन, एक्विनास, मैकियावेली, हॉब्स, लॉक, रूसो, बेन्थम, जे एस मिल, ग्रीन, हीगल, मार्क्स।
2. **भारतीय चिन्तन** : मनु, कौटिल्य, शान्तिपर्व, राजा राम मोहन राय, गोखले, तिलक, विवेकानन्द, एम एन रॉय, अरविन्द, अम्बेडकर, नेहरू, गाँधी, राजर्षि टण्डन, दीन दयाल उपाध्याय।
3. **राजनीतिक सि(ान्त** : राजनीति विज्ञान का अर्थ, प्रकृति, क्षेत्र, अध्ययन के उपागम, राज्य, प्रभुसत्ता, शक्ति, प्राधिकार, वैधता, न्याय, स्वतंत्राता, समानता, व्यक्तिवाद, उदारवाद, समुदायवाद, मार्क्सवाद, सर्वाधिकारवाद, फॉसीवाद, साम्राज्यवाद, राष्ट्रवाद, अन्तर्राष्ट्रवाद, नारीवाद, उत्तर–उपनिवेशवाद, उत्तर–आधुनिकतावाद, बहुसंस्कृतिवाद, उदारीकरण, वैश्वीकरण।

इकाई–2

4. **भारतीय शासन एवं राजनीति** : भारतीय संवैधानिक विकास, प्रस्तावना, नागरिकता, मूल अधिकार, नीति निदेशक तत्त्व, मूल कर्त्तव्य, संसद, संघीय एवं राज्य विधायिका एवं कार्यपालिका, भारतीय न्यायपालिका, विभिन्न आयोग, आपातकालीन उपबंध, विभिन्न संसदीय समितियाँ, संवैधानिक संशोधन इत्यादि, भारतीय संघवाद, भारतीय राजनीति में साम्प्रदायिकता, जातिवाद, भाषावाद एवं क्षेत्रवाद, राजनीतिक आन्दोलन एवं राजनीतिक समूह इत्यादि।

इकाई–3

5. **तुलनात्मक राजनीति** : अर्थ, प्रकृति, क्षेत्र, व्यवस्था विश्लेषण उपागम, संरचनात्मक–प्रक्रियात्मक उपागम, संचार उपागम, मार्क्सवादी उपागम, संविधानवाद, संसदीय एवं अध्यक्षीय शासन प्रणाली, एकात्मक एवं संघात्मक शासन प्रणाली, प्रजातंत्र एवं अधिनायकतंत्र, राजनीतिक विकास, राजनीतिक आधुनिकीकरण, राजनीतिक संस्कृति, राजनीतिक सहभागिता, राजनीतिक दल, दबाव समूह, प्रतिनिधित्त्व के सि(ान्त इत्यादि।

इकाई–4

6. **लोक प्रशासन** : लोक प्रशासन का अर्थ, प्रकृति, क्षेत्र, विकास के चरण, नवीन लोक प्रशासन, वैज्ञानिक प्रबंधन सि(ांत, नौकरशाही के सि(ांत, शास्त्रीय सि(ांत, मानव सम्बन्ध सि(ांत, व्यवस्था एवं पारिस्थितिकी उपागम, निर्णय निर्माण उपागम, लाइन एवं स्टाफ, पदसोपान, आदेश की एकता, प्रशासनिक व्यवहार, विशेषज्ञ बनाम सामान्यज्ञ, विकास प्रशासन का अर्थ, स्वरूप, क्षेत्र एवं मुद्दे, विकास अधिकारी तंत्र, सुशासन, प्रशासन पर विधायी, प्रशासनिक एवं न्यायिक नियंत्रण।

इकाई–5

7. **अंतर्राष्ट्रीय सम्बन्ध एवं विदेश नीति** : अंतर्राष्ट्रीय सम्बन्ध के सि(ांत एवं उपागम, आदर्शवाद, यथार्थवाद, व्यवस्था सि(ांत, खेल सि(ांत, संचार एवं निर्णय–निर्माण उपागम, शक्ति एवं हित, राष्ट्रीय हित, अंतर्राष्ट्रीय सम्बन्ध में विचारधारा, सामूहिक सुरक्षा, शक्ति संतुलन, निःशस्त्रीकरण, शीत यु(, गुट निरपेक्षता, गुट निरपेक्षता 2.0, वैश्वीकरण, नई अंतर्राष्ट्रीय आर्थिक व्यवस्था, उत्तर–दक्षिण संवाद, दक्षिण–दक्षिण सहयोग, डब्लू.टी.ओ., क्षेत्रीय संगठन, दक्षेस, आसिआन, ओपेक, संयुक्तराष्ट्र का लक्ष्य, उद्देश्य, संरचना, कार्य एवं मूल्यांकन, विदेश नीति के तत्त्व, भारतीय विदेश नीति की विशेषताएँ, भारत के विश्व की प्रमुख शक्तियों एवं पड़ोसियों से सम्बन्ध।

Unit-I

Political Thought and Theory

Western Political Thought: Plato, Aristotle, Augustine, Aquinas, Machiavelli, Hobbes, Locke, Rousseau, Bentham, J. S. Mill, T.H. Green, Hegel, Marx.

Indian Political Thought: Manu, Kautilya, Shantiparva, Raja Ram Mohan Roy, Gokhale, Tilak, Vivekananda, M.N. Roy, Aurobindo, Ambedkar, Nehru, Gandhi, Rajarshi Tandon, Deen Dayal Upadhyay.

Political Theory: Meaning, Nature and Scope of Political Science, Approaches to Study, State, Sovereignty, Power, Authority, Legitimacy, Justice, Liberty, Equality, Individualism, Liberalism, Communitarianism, Marxism, Totalitarianism, Fascism, Imperialism, Nationalism, Internationalism, Feminism, Post-colonialism, Post-modernism, Multiculturalism, Liberalisation, Globalisation.

Unit-II

Indian Government and Politics

Constitutional Development of India, Preamble, Citizenship, Fundamental Rights, Directive Principles of State Policy, Fundamental Duties, Parliament, Union and State Legislative and Executive, Indian Judiciary, Various Commissions, Emergency Provisions, Parliamentary Committees, Constitutional Reforms etc., Indian Federalism, Communalism in Indian Politics, Casteism, Lingualism and Regionalism, Political Movements and Political Groups etc.

Unit-III

Comparative Politics

Meaning, Nature and Scope of Comparative Politics, System Analysis Approach, Structural-Functional Approach, Communication Approach, Marxist Approach, Constitutionalism, Parliamentary and Presidential Governance System, Unitary and Federal Governance System, Democracy and Dictatorship, Political Development, Political Modernisation, Political Culture, Political Participation, Political Party, Pressure Groups, Theories of Representation etc.

Unit-IV

Public Administration

Meaning, Nature and Scope of Public Administration, Stages of Development of Public Administration, New Public Administration, Scientific Management Theory, Theories of Bureaucracy, Classical Theory, Human Relation Theory, System and Ecology Approach, Decision Making Approach, Line and Staff, Hierarchy, Unity of Command, Administrative Behaviour, Specialist versus Generalist, Meaning, Nature, Scope and Issues of Development Administration, Development Officer System, Good Governance, Legislative, Executive and Judicial Control over Administration.

Unit-V

International Relations and Foreign Policy

Theories and Approaches of International Relations, Idealism, Realism, System Theory, Game Theory, Communication and Decision Making Approach, Power and Interest, National Interest, Ideology in International Relations, Collective Security, Balance of Power, Disarmament, Cold War, Non-alignment, Non-alignment 2.0, Globalisation, New Economic World Order, North-South Dialogue, South-South Cooperation, WTO, Regional Organisations, SAARC, ASEAN, OPEC, Aim, Objective, Organisations, Functions and Evaluation of United Nations, Elements of Foreign Policy, Features of India's Foreign Policy, India's Relations with Major Powers and Neighbours.

Subject: Commerce (007)
Business Administration & Business Management (008)
विषय : वाणिज्य / व्यवसाय प्रशासन और व्यवसाय प्रबंधन

1. **MANAGERIAL ECONOMICS** –

   Demand Analysis, Production Function and Production Theory, Cost-Output Relations, Market Structures, Pricing Techniques, Demand – Cost – Profit – Forecasting, Macro Economics, National Income Concepts, Economic policy – Export import Policy.

2. **BUSINESS ENVIRONMENT** –

   Concepts and elements of business environment: Economic environment –Economic systems, economic policies (monetary and financial policies); Political environment –Role of government in business; Legal Environment – Consumer Protection Act, FEMA; Socio-cultural factors and their impact on business; corporate social responsibility.

3. **ACCOUNTING:**

   Accounting Concept and conventions, GAAP, Accounting Standards in India, Harmonization of Indian Accounting Standards, Capital Budgeting, Methods of capital Budgeting, traditional and modern method of evaluation, working capital and management, cash management, inventory management, receivable management, Dividend decisions, Ratio Analysis, Cash flow statement, fund flow statement, budgeting, fixed budget, flexible budget, performance budgeting, zero-base budgeting, Activity based Costing, Value Chain Analysis, Quality Costing, Target Costing.

4. **MANAGEMENT AND ITS PRINCIPLE-**

   Concept, Process, Theories and Approaches, Management Roles and Skills, Communication, Types, Process and Barriers, Demand analysis, Inflation, Utility Analysis, Indifference Curve, Elasticity & Forecasting, Concept, Types and Measurement, National Income, Concept, Types and Measurement. Facility Location, Layout Site Selection, Total Quality Management, KAIZEN, Benchmarking, Six SIGMA, Quality control process, Quality Management

5. **ENTREPRENEURSHIP**:

   Entrepreneurship Development Concept, Types, Theories and Process, Developing Entrepreneurial Competencies; Innovations in Business Types of Innovations, Creating and Identifying Opportunities, Screening of Business Ideas, Business Plan and Feasibility Analysis Concept and Process of Technical, Market and Financial Analysis; Micro and Small Scale Industries in India; Role of Government in Promoting SSI

6. **MARKETING MANAGEMENT:**

   Concept and Approach; marketing channels; marketing mix; strategic marketing planning; Market Segmentation, Target and Positioning, Product Decision: Concept; product line; Product mix decisions, product life cycle; New product life cycle, pricing decisions: factors influencing pricing; Pricing policies and strategies, Promotion decisions: Role of promotion in marketing; Methods of promotion – advertising; Personal Selling; Publicity; Sales promotional tools and techniques; Promotion mix, distribution decisions: channels of distribution, channel management, Consumer behaviour: Consumer purchasing process, factors influencing consumer purchasing decision, service marketing, marketing trends: social marketing; Online Marketing; Green Marketing; Direct Marketing Rural Marketing; CRM, Logistics Management

7. **HUMAN RESOURCE MANAGEMENT** –

Concepts and Perspectives in HRM- Human Resource Planning- Objectives, Process and Techniques. Job analysis-Job Description- Job Evaluation. Recruitment and Selection and Exit Policy. Training and Development- Types, Training Need Analysis and methods. Performance Appraisal and Evaluation Types and Methods. Compensation Management and Wage Determination. Industrial Relations and Trade Unions. Dispute Resolution and Grievance Management. Labour Welfare, Functions of Management, Concept and significance of organizational behavior, Theories of organizational behavior.

8. **FINANCIAL MANAGEMENT:**

Financial Statement Analysis Ratio Analysis, Funds Flow and Cash Flow Analysis, DuPont Analysis, Standard Costing & Variance Analysis, Capital Structure Theories, Cost of Capital, Sources and Finance, Leverages Operating, Financial and Combined Leverages, EBIT-EPS Analysis, Financial Breakeven Point & Indifference Level, Financial Management, Concept & Functions.

9. **STRATEGIC MANAGEMENT**:

StrategicManagementConcept,Process,DecisionsandTypes;StrategicAnalysis–ExternalAnalysis, PEST, Porter's Approach to industry analysis, Internal Analysis - Resource Based Approach, Value Chain Analysis; Strategy Implementation - Challenges of Change, Developing Programs Mckinsey 7s Framework; Market Segmentation, Positioning and Targeting.

10. **BUSINESS ETHICS & CORPORATE GOVERNANCE:**

Nature, scope and purpose of ethics, Ethics and Business System: Markets, Environment, Trade, Consumer Production, Holistic Approach for Managers in Decision Making, Professional ethos and code of professional ethics. Social Responsibility of Corporate, Corporate Social Reporting, Corporate Governance and the Role of Board of Directors (BOD), corporate social responsibility

11. **RESEACH METHODOLOGY AND STATISTICS**:

Research- meaning, objectives, and dimensions, research problems, variables and operational definitions, hypotheses, sampling, ethics in conducting research and reporting. General probability curve. Parametric [T-test] and non-parametric tests [sign test, Wilco signed rank test, Mann-Whitney test, Kruschl-Wallis test, Friedman]. Correlation, Regression, Factor Analysis, ANOVA

12. **ICT AND COMMUNICATION-**

Important Terminologies, Types of Computers, Generations of computers, Input and Output Devices, Media, Network Topologies, Internet and related terminologies, Difference between Internet and Intranet, Mobile Network, Search engines and web browser, Networking, Memory Devices, Digital initiatives in Higher Education ,Application of ICT in business. Communication: Meaning, types, and characteristics of communication.Effective communication: Verbal and Non-verbal, Inter-Cultural and group communications, Classroom communication, Barriers to effective communication, Mass-Media and Society.

1. **(MANAGERIAL ECONOMICS) प्रबंधकीय अर्थशास्त्र**– मांग विश्लेषण, उत्पादन कार्य और उत्पादन सिद्धांत, लागत–उत्पादन संबंध, बाजार संरचनाएं, मूल्य निर्धारण तकनीक, मांग–लागत–लाभ–पूर्वानुमान, मैक्रो अर्थशास्त्र, राष्ट्रीय आय अवधारणाएं, आर्थिक नीति–निर्यात, आयात नीति।

2. 2. **(BUSINESS ENVIRONMENT) व्यवसायिक वातावरण**– व्यवसायिक वातावरण की अवधारणाएँ एवं तत्व, आर्थिक वातावरण–आर्थिक पद्धतियां, आर्थिक नीतियां (मुद्रिक एवं वित्तीय नीतियां), राजनीतिक वातावरण–व्यवसाय में सरकार की भूमिका, वैधानिक वातावरण–उपभोक्ता संरक्षण अधिनियम, एफ ई एम ए (फेमा), सामाजिक–सांस्कृतिक कारक और व्यवसाय पर उनका प्रभाव, कार्पोरेट की सामाजिक जिम्मेदारी।

3. 3. **(ACCOUNTING) लेखांकन**– लेखांकन अवधारणा और परंपराएं, जीएएपी, भारत में लेखांकन मानक, भारतीय लेखांकन मानकों का सामंजस्य, पूंजी बजटिंग, पूंजी बजटिंग के तरीके, मूल्यांकन की पारंपरिक और आधुनिक विधि, कार्यशील पूंजी और प्रबंधन, नकदी प्रबंधन, इन्वेंट्री प्रबंधन, प्राप्य प्रबंधन, लाभांश निर्णय, अनुपात विश्लेषण, नकदी प्रवाह विवरण, निधि प्रवाह विवरण, बजटिंग, निश्चित बजट, लचीला बजट, प्रदर्शन बजटिंग, शून्य–आधार बजटिंग, गतिविधि आधारित लागत, मूल्य श्रृंखला विश्लेषण, गुणवत्ता लागत, लक्ष्य लागत।

4. 4. **(MANAGEMENT AND ITS PRINCIPLE) प्रबंधन**– संकल्पना, प्रक्रिया, सिद्धांत और दृष्टिकोण, प्रबंधन भूमिकाएं और कौशल, संचार, प्रकार, प्रक्रिया और बाधाएं, मांग विश्लेषण, मुद्रास्फीति, उपयोगिता विश्लेषण, उदासीनता वक्र, लोच और पूर्वानुमान, अवधारणा, प्रकार और माप, राष्ट्रीय आय, अवधारणा, प्रकार और मापन. सुविधा स्थान, लेआउट साइट चयन, कुल गुणवत्ता प्रबंधन, ,KAIZEN**,** बेंचमार्किंग, छह SIGMA, गुणवत्ता नियंत्रण प्रक्रिया, गुणवत्ता प्रबंधन।

5. 5. **(ENTREPRENUERSHIP) उद्यमिता**– उद्यमिता विकास अवधारणा, प्रकार, सिद्धांत और प्रक्रिया, उद्यमशीलता दक्षताओं का विकासय व्यवसाय में नवाचार नवाचारों के प्रकार, अवसर बनाना और पहचानना, व्यावसायिक विचारों की स्क्रीनिंग, व्यवसाय योजना और व्यवहार्यता विश्लेषण अवधारणा और तकनीकी, बाजार और वित्तीय विश्लेषण की प्रक्रियायें भारत में सूक्ष्म और लघु उद्योग, एसएसआई को बढ़ावा देने में सरकार की भूमिका।

6. 6. **(MARKETING MANAGEMENT) विपणन प्रबंधन**– संकल्पना और उपागमय विपणन माध्यम, विपणन मिश्रण, कार्यनीति पर विपणन योजनायें बाजार खंडीकरण, लक्ष्य और स्थिति, उत्पाद निर्णय, संकल्पनायें उत्पाद रेखा, उत्पाद मिश्रण निर्णय, उत्पाद जीवन चक्र, नवीन उत्पाद जीवन, चक्र, कीमत संबंधी निर्णय /कीमत निर्धारण को प्रभावित करने वाले कारक, कीमत निर्धारण नीतियां तथा कार्यनीतियां, संवर्धन संबंधी निर्णय, विपणन में संवर्धन की भूमिका, संवर्धन की विधियां–विज्ञापन, वैयक्तिक विक्रय, प्रचार, विक्रय संवेर्धनात्मक साधन और तकनीक, संवर्धन मिश्रण, वितरण संबंधी निर्णय, वितरण के माध्यम, माध्यम प्रबंध, उपभोक्ता व्यवहार, उपभोक्ता की क्रय प्रक्रिया, उपभोक्ता के क्रय निर्णय को प्रभावित करने वाले कारक, सेवा विपणन, विपणन की प्रवृत्तियां, सामाजिक विपणन, ऑनलाइन मार्केटिंग, ग्रीनमार्केटिंग, प्रत्यक्ष विपणन ग्रामीण विपणन, सीआरएम, संभार प्रबंध।

7. 7. **(HUMAN RESOURCE MANAGEMENT) एचआरएम में अवधारणाएं और परिप्रेक्ष्य**– मानवसंसाधन योजना–उद्देश्य, प्रक्रिया और तकनीक। नौकरी विश्लेषण–नौकरी विवरण– नौकरी मूल्यांकन। भर्ती एवं चयन एवं निकास नीति। प्रशिक्षण और विकास–प्रकार, प्रशिक्षण आवश्यकता विश्लेषण और विधियाँ। प्रदर्शन मूल्यांकन और मूल्यांकन के प्रकार और तरीके। मुआवजा प्रबंधन और वेतन निर्धारण. औद्योगिक संबंध और व्यापार संघ। विवाद समाधान और शिकायत प्रबंधन। श्रमिक कल्याण, प्रबंधन के कार्य, संगठनात्मक व्यवहार की अवधारणा और महत्व, संगठनात्मक व्यवहार के सिद्धांत।

8. 8. (**FINANCIAL MANAGEMENT**) **लेखांकन और वित्तीय प्रबंधन**– वित्तीय विवरण विश्लेषण अनुपात विश्लेषण, धनप्रवाह और नकदी प्रवाह विश्लेषण, ड्यूपॉन्ट विश्लेषण, मानक लागत और भिन्नता विश्लेषण, पूंजी संरचना सिद्धांत, पूंजी की लागत, स्रोत और वित्त, उत्तोलन संचालन, वित्तीय और संयुक्त उत्तोलन, ईबीआईटी–ईपीएस विश्लेषण, वित्तीय ब्रेकईवन बिंदु और उदासीनता स्तर, वित्तीय प्रबंधन, अवधारणा और कार्य।

9. 9. **(STRATEGIC MANAGEMENT) रणनीतिकप्रबंधन**–रणनीतिक प्रबंधन अवधारणा, प्रक्रिया, निर्णय और प्रकारय रणनीतिक विश्लेषण–बाहरी विश्लेषण, कीट, उद्योग विश्लेषण के लिए पोर्टर का दृष्टिकोण, आंतरिक विश्लेषण–संसाधन आधारित दृष्टिकोण, मूल्य श्रृंखला विश्लेषण, रणनीति कार्यान्वयन–परिवर्तन की चुनौतियां, विकासशील कार्यक्रम मैकिन्से 7 एस फ्रेमवर्क, बाजार विभाजन, स्थिति निर्धारण और लक्ष्यीकरण

10. 10. **(RESEACH METHODOLOGY AND STATISTICS) शोध पद्धति और सांख्यिकी**– शोध–अर्थ, उद्देश्य, और आयाम, अनुसंधान समस्याएं, चर और परिचालन परिभाषाएं, परिकल्पना, नमूनाकरण, अनुसंधान के संचालन और रिपोर्टिंग में नैतिकता अनुसंधान के प्रतिमान, मात्रात्मक, गुणात्मक, मिश्रित तरीके दृष्टिकोण, अनुसंधान के तरीके, केंद्रीय प्रवृत्ति और फैलाव के उपाय। सामान्य प्रायिकता वक्र। पैरामीट्रिक –परीक्षण, और गैर–पैरामीट्रिक परीक्षण, साइन–टेस्ट, विल्को हस्ताक्षरित रैंक टेस्ट, मान–व्हिटनी परीक्षण, क्रुस्कल–वालिस परीक्षण, फ्रीडमैन–परीक्षण। सहसंबंध, प्रतिगमन, कारक विश्लेषण, एनोवा

11. 11. **(BUSINESS ETHICS AND CORPORATE GOVERNANCE) व्यावसायिक नैतिकता और कॉर्पोरेट प्रशासन**– नैतिकता, नैतिकता और व्यवसाय की प्रकृति, दायरा और उद्देश्य। प्रणाली बाजार, पर्यावरण, व्यापार, उपभोक्ता उत्पादन, निर्णय लेने में प्रबंधकों के लिए समग्र दृष्टिकोण, पेशेवर लोकाचार और पेशेवर नैतिकता संहिता। कॉर्पोरेट की

सामाजिक जिम्मेदारी, कॉर्पोरेट सामाजिक रिपोर्टिंग, कॉर्पोरेट प्रशासन और निदेशक मंडल (बीओडी), कॉर्पोरेट की भूमिका सामाजिक जिम्मेदारी (CSR)

12. 12. **(ICT AND COMMUNICATION) आईसीटी और संचार**–महत्वपूर्ण शब्दावली, कंप्यूटर के प्रकार, कंप्यूटर की पीढ़ी, इनपुट और आउटपुट डिवाइस, मीडिया, नेटवर्क टोपोलॉजी, इंटरनेट और संबंधित शब्दावली, इंटरनेट और इंट्रानेट के बीच अंतर, मोबाइल नेटवर्क, खोज इंजन और वेबब्राउजर, नेटवर्किंग, मेमोरी डिवाइस, उच्च–शिक्षा में डिजिटल पहल, व्यवसाय में आईसीटी का अनुप्रयोग। संचार– संचार के अर्थ, प्रकार और विशेषताएं। प्रभावी संचार, मौखिक और गैर–मौखिक, अंतर–सांस्कृतिक और समूह संचार, कक्षा संचार, प्रभावी संचार में बाधाएं, मास–मीडिया और समाज।

Subject: Education (009)

विषय : शिक्षाशास्त्र

Unit I : Philosophical and Sociological Perspective of Education

(i) Concept and Functions of Philosophy and Education, Need and Scope of Educational Philosophy.

(ii) Educational Contribution of Indian Schools of philosophy (Sankhya, Yoga, Vedanta, Buddhism, Jainism)

(iii) Contribution of Western schools of thoughts (Idealism, Realism, Naturalism, Pragmatism, Marxism, Existentialism) and their contribution to Education with special reference to information, knowledge and wisdom.

(iv) Sociology of Education (symbolic Interaction, Structural Functionalism and Conflict Theory), Concept and types of social Institutions and their functions (family, school and society), Concept of Social Movements, Theories of Social Movements (Relative Deprivation, Resource Mobilization, Political Process Theory and New Social Movement Theory, Socialization and education, education and culture education.

(v) Contribution of thinkers (Swami Vivekananda, Rabindranath Tagore, Mahatma Gandhi, Aurobindo, J.Krishnamurthy, Gijju Bhai, Rajarshi Purusottam Das Tandon and Savitribai Phule) to the development of educational thought for social change.

(vi) National Values as enshrined in the Indian Constitution- Socialism, Secularism, justice, liberty, democracy, equality, freedom with special reference to education.

Unit 2: History, Politics and Economics of Education

(i) Committees and Commissions on Education : Secondary Education Commission (1952-54), Kothari Education Commission (1964-66), National Policy of Education (1986-1992), National Commission on Teachers (1999), National Curriculum Framework 2005, National Knowledge Commission (2007),Yashpal Committee Report (2009), National Curriculum Framework for Teacher Education (2009), Justice Verma Committee Report (2012).

(ii) Relationship between Policies and Education, Linkage between Educational Policy and National Development, Determinants of Educational Policy and Process of Policy formulation: Analysis of the existing situation, generation of policy options, evaluation of policy options, making the policy decision, planning of policy implementation, policy impact assessment and subsequent policy cycles.

(iii) Concept of Economics of Education: Cost Benefit Analysis Vs Cost Effective Analysis in Education, Economic returns to Higher Education, Signaling Theory Vs Human Capital Theory, Concept of Educational Finance; Educational finance at Micro and Macro Levels, Concept of Budgeting.

(iv) Relationship Between Politics and Education, Perspectives of Politics of Education Liberal, Conservative and Critical, Approaches to understanding Politics (Behaviouralism, Theory of Systems Analysis and Theory of Rational Choice), Education for Political Development and Political Socialization.

Unit 3: Learner and Learning Process

(i) Growth and Development: Concept and principles, stages of development, Cognitive Processes and stages of Cognitive Development.

(ii) Personality: Definitions and theories (Freud, Carl Rogers, Gordon Allport, Max Wertheimer, Kurt Koffka), Assessment of Personality, Mental health and Mental hygiene.

(iii) Approaches to Intelligence from Unitary to Multiple: Concepts of Social intelligence, multiple intelligence, emotional intelligence, Theories of Intelligence, Assessment of Intelligence.

(iv) Concepts of Problem Solving, Critical thinking, Metacognition and Creativity.

(v) Learning: Concept, types, Principles and Theories of learning (Behaviouristic, Cognitive and Social theories of learning) Factors affecting learning, social competence, Concept of social cognition, understanding social relationship and socialization goals.

(vi) Guidance and Counselling: Nature, Principles and Need, Types of guidance (educational,vocational, personal, health and social & Directive, Non-directive and Eclectic), Approaches to counselling – Cognitive-Behavioural (Albert Ellis – REBT) & Humanistic, Personcentred Counselling (Carl Rogers) - Theories of Counselling (Behaviouristic, Rational, Emotive and Reality).

Unit 4: Teacher Education

(i) Meaning, Nature and Scope of Teacher Education; Types of Teacher Education Programs, The Structure of Teacher Education Curriculum and its Vision in Curriculum Documents of NCERT and NCTE at Elementary, Secondary and Higher Secondary Levels, Organization of Components of Pre-service Teacher Education Transactional Approaches (for foundation courses) Expository, Collaborative and Experiential learning.

(ii) Understanding Knowledge base of Teacher Education from the view point of Schulman, Deng and Luke & Habermas, Meaning of Reflective Teaching and Strategies for Promoting Reflective Teaching, Models of Teacher Education – Behaviouristic, Competency-based and Inquiry Oriented Teacher Education Models

(iii) Concept,Need, Purpose and Scope of In-service Teacher Education, Organization and Modes of In-service Teacher Education, Agencies and Institutions of In-service Teacher Education at District, State and National Levels (SSA, RMSA, SCERT, NCERT, NCTE and UGC), Preliminary Consideration in Planning in-service teacher education programme (Purpose, Duration, Resources and Budget).

(iv) Concept of Profession and Professionalism, Teaching as a Profession, Professional Ethics of Teachers, Personal and Contextual factors affecting Teacher Development, ICT Integration, Quality Enhancement for Professionalization of Teacher Education, Innovation in Teacher Education.

Unit 5: Curriculum Studies

(i) Concept and Principles of Curriculum, Strategies of Curriculum Development, Stages in the Process of Curriculum development Foundations of Curriculum Planning - Philosophical Bases (National, democratic), Sociological basis (socio cultural reconstruction), Psychological Bases (learner's needs and interests), Bench marking and Role of National level Statutory Bodies – UGC, NCTE and University in Curriculum Development.

(ii) Models of Curriculum Design: Traditional and Contemporary Models (Academic / Discipline Based Model, Competency Based Model, Social Functions / Activities Model [social reconstruction], Individual Needs & Interests Model,Outcome Based Integrative Model, Intervention Model, C I P P Model (Context, Input, Process, Product Model).

(iii) Instructional System, Instructional Media, Instructional Techniques and Material in enhancing curriculum Transaction, Approaches to Evaluation of Curriculum : Approaches to Curriculum and Instruction (Academic and Competency Based Approaches), Models of Curriculum Evaluation:

Tyler's Model, Stakes' Model, Scriven's Model, Kirkpatrick's Model d) Meaning and types of Curriculum change, Factors affecting curriculum change,Approaches to curriculum change, Role of students, teachers and educational administrators in curriculum change and improvement, Scope of curriculum research and Types of Research in Curriculum Studies.

Unit 6: Pedagogy, Assessment and Evaluation

(i) Pedagogy, Pedagogical Analysis - Concept and Stages, Critical Pedagogy- Meaning, Need and its implications in Teacher Education, Organizing Teaching: Memory Level (Herbartian Model), Understanding Level (Morrison teaching Model), Reflective Level (Bigge and Hunt teaching Model).

(ii) Assessment and Evaluation – Meaning, nature, types and perspectives (assessment for Learning, assessment of learning and assessment in Learning) - Types of Assessment (Placement, formative, diagnostic, summative) Relations between objectives and outcomes, Assessment of Cognitive, Affective and psychomotor domains of learning.

(iii) Assessment in Pedagogy of Education: Feedback Devices: Meaning, Types, Criteria, Guidance as a Feedback Devices: Assessment of Portfolios, Reflective Journal, Field Engagement using Rubrics, Competency Based Evaluation, Assessment of Teacher Prepared ICT Resources.

(iv) Measuring Tool- Need, Construction and standardization, Characteristics of good measuring tool.

(v) Specific Psychological tests for measurement and evaluation- Personality, Intelligence, Creativity, Aptitude and Attitude.

Unit 7: Technology in/ for Education

(i) Concept of Educational Technology (ET) as a Discipline: (Information Technology, Communication Technology & Information and Communication Technology (ICT) and Instructional Technology, Applications of Educational Technology in formal, non formal (Open and Distance Learning), informal and inclusive education systems, Overview of Behaviourist, Cognitive and Constructivist Theories and their implications to Instructional Design (Skinner, Piaget, Ausubel, Bruner, Vygotsky), Relationship between Learning Theories and Instructional Strategies (for large and small groups, formal and non formal groups).

(ii) Systems Approach to Instructional Design, Models of Development of Instructional Design (ADDIE, ASSURE, Dick and Carey Model Mason's), Gagne's Nine Events of Instruction and Five E's of Constructivism, Nine Elements of Constructivist Instructional Design, Application of Computers in Education: CAI, CAL, CBT, CML, Concept, Process of preparing ODLM, Concept of e learning, Approaches to e learning (Offline, Online, Synchronous, Asynchronous, Blended learning, mobile learning).

(iii) Emerging Trends in e learning: Social learning (concept, use of web 2.0 tools for learning, social networking sites, blogs, chats, video conferencing, discussion forum), Open Education Resources (Creative Common, Massive Open Online Courses; Concept and application), E Inclusion - Concept of E Inclusion, Application of Assistive technology in E learning, Quality of E Learning – Measuring quality of system: Information, System, Service, User Satisfaction and Net Benefits (D&M IS Success Model, 2003)

(iv) Ethical Issues for E Learner and E Teacher – Teaching, Learning and Research.

(v) Use of ICT in Evaluation, Administration and Research: E portfolios, ICT for Research - Online Repositories and Online Libraries, Online and Offline assessment tools (Online survey tools or test generators) – Concept and Development.

Unit 8: Educational Management, Administration and Leadership

(i) Educational Management and Administration– Meaning, Principles, Functions and importance, Institutional building, POSDCORB, CPM, PERT, Management as a system, SWOT analysis, Taylorism, Administration as a process, Administration as a bureaucracy, Human relations approach to Administration, Organisational compliance, Organinsational development, Organisational climate.

(ii) Leadership in Educational Administration: Meaning and Nature, Approaches to leadership: Trait, Transformational, Transactional, Value based, Cultural, Psychodynamic and Charismatic, Models of Leadership (Blake and Mouton's Managerial Grid, Fiedler's Contingency Model, Tri-dimensional Model, Hersey and Blanchard's Model, Leader-Member Exchange Theory).

(iii) Concept of Quality and Quality in Education: Indian and International perspective, Evolution of Quality: Inspection, Quality Control, Quality Assurance, Total Quality Management (TQM), Six sigma, Quality Gurus: Walter Shewart, Edward Deming, C.K Pralhad.

(iv) Change Management: Meaning, Need for Planned change, Three Step-Model of Change (Unfreezing, Moving, Refreezing), The Japanese Models of Change: Just-in-Time, Poka yoke, Cost of Quality: Appraisal Costs, Failure costs and Preventable costs, Cost Benefit Analysis, Cost Effective Analysis, Indian and International Quality Assurance Agencies: Objectives, Functions, Roles and Initiatives (National Assessment Accreditation Council [NAAC], Performance Indicators, Quality Council of India [QCI] , International Network for Quality Assurance Agencies in Higher Education [INQAAHE].

Unit 9: Inclusive Education

(i) Inclusive Education: Concept, Principles, Scope and Target Groups (Diverse learners; Including Marginalized group and Learners with Disabilities), Evolution of the Philosophy of Inclusive Education: Special, Integrated, Inclusive Education.

(ii) Legal Provisions: Policies and Legislations (National Policy of Education (1986), Programme of Action of Action (1992), Persons with Disabilities Act (1995), National Policy of Disabilities (2006), National Curriculum Framework (2005), Concession and Facilities to Diverse Learners (Academic and Financial), Rehabilitation Council of India Act (1992), RPWD Act-2016, Inclusive Education under Sarva Shiksha Abhiyan (SSA), Features of UNCRPD (United Nations Convention on the Rights of Persons with Disabilities) and its Implication.

(iii) Concept of Impairment, Disability and Handicap, Classification of Disabilities based on ICF Model, Readiness of School and Models of Inclusion, Prevalence, Types, Characteristics and Educational Needs of Diverse learners' Intellectual, Physical and Multiple Disabilities, Causes and prevention of disabilities, Identification of Diverse Learners for Inclusion,Educational Evaluation Methods, Techniques and Tools.

(iv) Planning and Management of Inclusive Classrooms: Infrastructure, Human Resource and Instructional Practices, Curriculum and Curricular Adaptations for Diverse Learners, Assistive and Adaptive Technology for Diverse learners: Product (Aids and Appliances) and Process (Individualized Education Plan, Remedial Teaching), Parent Professional Partnership: Role of Parents, Peers, Professionals, Teachers, School.

(v) Barriers and Facilitators in Inclusive Education: Attitude, Social and Educational, Current Status and Ethical Issues of inclusive education in India, Research Trends of Inclusive Education in India.

विषय : संस्कृत और प्राकृत भाषा (010)

1. वैदिक संस्कृत साहित्य का इतिहास ; सामान्य परिचय,
   संहिता, ब्राह्मण, आरण्यक , उपनिषद् एवं वेदांग
2. पुराणों का सामान्य परिचय
3. लौकिक संरकृत साहित्य का इतिहास; सामान्य परिचय,
   (i) रामायण, महाभारत, महाकाव्य, खण्डकाव्य, ;गीतिकाव्य, नाट्यकाव्य एवं कथा साहित्य
   (ii) संस्कृत काव्यशास्त्र का सामान्य परिचय
4. आधुनिक संस्कृत साहित्य का सामान्य परिचय
5. भारतीय प्राच्य दर्शन ;सामान्य परिचय–सांख्य, योग, न्याय, वैशेषिक, पूर्व मीमांसा, उत्तर मीमांसा, जैन, बौद्ध एवं चार्वाक्।
6. संस्कृत–व्याकरण का सामान्य परिचय–संज्ञा, सन्धि, समास, कारक, स्त्री प्रत्यय, कृत् एवं तद्धित
7. भारतीय आर्य भाषाओं का सामान्य परिचय

Subject: Statistics (011)
विषय : सांख्यिकी

Probability Distributions:

- Bernoulli Distribution, Binomial Distribution, Mean and Variance of Binomial Distribution, Moments, Moments Generating Function, Additive and Multiplicative property, Recurrence relation for moments, Fitting of Binomial Distribution, Poisson Distribution, Poisson Distribution as a limiting case of Binomial Distribution, Mean and Variance of Poisson Distribution, Moments, Moment Generating Function, Additive and Reproductive property, Recurrence relation for moments, fitting of Poisson Distribution.
- Geometric Distribution, Mean and Variance, Moment Generating Function of Geometric Distribution, Negative Binomial Distribution, Moment Generating Function, Mean and Variance, Recurrence formulae for Negative Binomial Distribution, Poisson Distribution as a limiting case of Negative Binomial Distribution, Hyper Geometric Distribution, Mean and Variance, Recurrence relation for Hyper Geometric distribution..
- Normal Distribution and its Parameters, Standard Normal Distribution, Moments, Moments Generating Function, Area Property, properties of Normal Curve, Standard Scores, Advantages and Characteristics of Z Scores.
- Uniform Distribution, Moment Generating Function, Distribution Function, Moments of Uniform Distribution, Exponential Distribution, Moments, Moment Generating Function, Lack of Memory Property.
- Sampling distribution of a statistic, Parameter, Derivation of χ^2, t, F, z distributions, Beta, Gamma, Chauchy densities.

Estimation and Testing of Hypothesis:

- Point Estimation, properties of a good estimator, Consistency, Unbiasedness, Efficiency, Sufficiency, Confidence Interval Estimation.
- Procedures of Estimation, Method of Moments, Method of Maximum Likelihood, Method of Scoring, Properties of Estimators.
- Statistical Hypothesis, Simple and Composite Hypothesis, Critical Region, Two kinds of Error, One-tailed and Two-tailed tests, Test of Significance, Most Powerful Test, Uniformly Most Powerful Test.
- Tests of Significance based on Chi-Square Distribution, Tests of Significance based on t – Distribution, Tests of Significance based on F – Distribution, Tests of Significance based on Fisher's Z - Distribution.
- Testing Significance of Mean, Testing Equality of Means, Testing Significance of Proportion, Testing Equality of Proportions, Testing Significance of Standard Deviation, Testing Equality of Standard Deviation.
- Non Parametric Tests, Sign Test, Wilcoxon Signed- Rank Test, Mann- Whitney U-Test, Run Test.

Sampling Theory:

- Simple Random Sampling Without Replacement (SRSWOR). Stratified Sampling, Reasons & Advantages of Stratification, Equal Allocation, Proportional Allocation, Variance of Stratified Mean under Proportional Allocation, Optimum Allocation, and Variance of Stratified Mean under Neyman Allocation, Relationship among Three Variances, Impact of Arbitrary Allocation, and Practical difficulties in Implementing Neyman Allocation, Systematic Random Sampling,Mean and Variance of Systematic Sampling.
- Introduction, Ratio and Regression Estimators, Approximate Variances of the Ratio Estimators, Ratio and Regression estimators, product method of estimation, double sampling in ratio estimation and double sampling in regression estimation, sub sampling. Cluster Sampling (Equal Cluster- Size), Estimation of Mean with SRS at both Stages, Relative Efficiency of Cluster Sampling, Two Stage Sampling, Estimation of Mean, Optimum Allocation when Cost Fixed and when Variance Fixed, Two-Phase (Double) Sampling for Stratification, Estimation of Mean, Difference between Multistage Sampling and Two Phase Sampling. Cluster sampling with equal clusters, Cluster sampling with varying size of clusters, Two Stage sampling and multi-stage sampling.

Analysis of Variance, Design of Experiment:

- Analysis of Variance, Linear Models and Analysis of Variance, Design of Experiment, Basic Principles of Design of Experiments, Completely Randomized Design.
- Randomized Block Design, Efficiency of RBD, Missing Plot Technique, Latin Square Design, and Efficiency of LSD.
- Definition, 2^2 and 2^3 factorial experiments with its ANOVA table, Analysis of Covariance.
- Introduction, Balanced Incomplete Block Design (BIBD).

Time Series and Determination of Trends:

- Introduction, Utility of Time Series Analysis, Component of Time Series, Mathematical Models for Time Series Analysis.
- Introduction, Graphic Method, Method of Semi Averages, Method of Curve Fitting by the Principle of Least Squares, Method of Moving Averages (when Period is Even & Odd).
- Introduction, Measurement of Seasonal Indices, Method of Simple Averages, Ratio to Trend Method, Ratio to Moving Average Method, Method of Link Relatives.

Demography:

- Introduction, Demography & Vital Statistics, Sources of Demographic Data, Errors in Data Collection, Evaluation & its Adjustments, Rates & Ratios.
- Introduction, Measures of Mortality,CDR, SDR, StDR, MMR, IMR., Fertility, Measures of Fertility, CBR, GFR, ASFR, TFR. GRR, NRR.
- Description & Construction of Complete Life Table, Uses of a Life Table, Migration and its measurements.

विषय : हिन्दी और आधुनिक भारतीय भाषाएँ (013)

1. हिन्दी साहित्य के प्रमुख इतिहास ग्रंथ, हिन्दी साहित्य के इतिहास का काल–विभाजन और नामकरण।
2. आदिकालीन हिन्दी साहित्य की पृष्ठभूमि, आदिकालीन हिन्दी का जैन साहित्य, सि(और नाथ साहित्य, फुटकर लौकिक साहित्य, रासो काव्य, विद्यापति और उनकी पदावली।
3. भक्ति आन्दोलन के उदय की पृष्ठभूमि, प्रमुख निर्गुण एवं सगुण सम्प्रदाय, भक्ति आन्दोलन का अखिल भारतीय स्वरूप, हिन्दी सन्तकाव्य, सूफी काव्य, कृष्ण काव्य एवं रामकाव्य : प्रमुख कवि एवं उनका योगदान।
4. **रीतिकाल** : सामाजिक–सांस्कृतिक परिप्रेक्ष्य, प्रमुख काव्यधाराएँ–रीतिब(, रीतिसि(, रीतिमुक्त, रीतिकाल के प्रमुख कवि एवं उनका काव्य–वैशिष्ट्य, रीतिकालीन श्रृंगारेतर काव्य।
5. **आधुनिक हिन्दी कविता का विकास** : भारतेन्दु युग, द्विवेदी युग, छायावाद, प्रगतिवाद, प्रयोगवाद, नई कविता एवं समकालीन कविता प्रमुख कवि एवं उनकी काव्यगत विशेषताएँ।
6. **हिन्दी गद्य की प्रमुख विधाएँ**–नाटक, निबन्ध, उपन्यास, कहानी, आलोचना : उद्भव एवं विकास, प्रमुख रचनाकार एवं उनका योगदान।
7. **अन्य गद्य विधाएँ –जीवनी, आत्मकथा, संस्मरण, रेखाचित्र, यात्रावृत्त, डायरी, रिपोर्ताज : सामान्य परिचय**
8. भारोपीय भाषा–परिवार की विशेषताएँ और वर्गीकरण ;फॉतम् और केण्टुम् वर्गद्ध, भारत में बोले जाने वाले प्रमुख भाषा– परिवार ।
9. **भारतीय आर्यभाषाओं का क्रमिक विकास** : सामान्य परिचय, साहित्यिक भाषा के रूप में खड़ी बोली का उदय और विकास, हिन्दी की बोलियाँ–वर्गीकरण तथा क्षेत्र, नागरी लिपि का विकास और उसका मानकीकरण ।
10. हिन्दी प्रसार के आन्दोलन, प्रमुख व्यक्तियों तथा संस्थाओं का योगदान, राजभाषा के रूप में हिन्दी, कार्यालयी हिन्दी के प्रकार्य ;सरकारी पत्राचार, टिप्पण, प्रारूपण, संक्षेपण, पल्लवनद्ध।
11. काव्य–लक्षण, काव्य–प्रयोजन एवं काव्य हेतु पर भारतीय एवं पाश्चात्य काव्य शास्त्रियों के मत, भारतीय काव्य–शास्त्र के प्रमुख सम्प्रदायों का सामान्य परिचय, रसनिष्पत्ति एवं साधारणीकरण।
12. प्लेटो, अरस्तू, लोंजाइनस, क्रोचे, टी.एस.इलियट तथा आई.ए. रिचर्ड्स के काव्य–सि(ान्त।
13. **हिन्दी आलोचना की प्रवृत्तियाँ**–सै(ान्तिक और व्यावहारिक समीक्षा का स्वरूप, शैली, वैज्ञानिक समीक्षा, समाजशात्रीय समीक्षा ;विभिन्न समकालीन विमर्शद्ध, तुलनात्मक साहित्य के अध्ययन की उपयोगिता ;तुलनात्मक समीक्षाद्ध

Subject: Geography (014)
विषय : भूगोल

UNIT-I

Geomorphology

Continental Drift, Plate Tectonics, Endogenetic and Exogenetic forces. Denudation and Weathering, Geomorphic Cycle (Davis and Penck), Theories and Process of Slope Development, Earth Movements (seismicity, folding, faulting and vulcanicity), Landform Occurrence and Causes of Geomorphic Hazards (earthquakes, volcanoes, landslides andavalanches)

UNIT –II

Climatology

Composition and Structure of Atmosphere; Insolation, Heat Budget of Earth, Temperature, Pressure and Winds, Atmospheric Circulation (air-masses, fronts and upper air circulation, cyclones and anticyclones (tropical and temperate), Climatic Classification of Koppen & Thornthwaite, ENSO Events (El Nino, La Nina and Southern Oscillations), Meteorological Hazards and Disasters (Cyclones, Thunderstorms, Tornadoes, Hailstorms, Heat and Cold waves Drought and Cloudburst , Glacial Lake Outburst (GLOF), Climate Change: Evidences and Causes of Climatic Change in the past, Human impact on Global Climate.

UNIT-III

Oceanography

Relief of Oceans, Composition: Temperature, Density and Salinity, Circulation: Warm and Cold Currents, Waves, Tides, Sea Level Changes, Hazards: Tsunami and Cyclone

UNIT –IV

Geography of Environment

Components: Ecosystem (Geographic Classification) and Human Ecology, Functions: Trophic Levels, Energy Flows, Cycles (geo-chemical, carbon, nitrogen and oxygen), Food Chain, Food Web and Ecological Pyramid, Human Interaction and Impacts, Environmental Ethics and Deep Ecology, Environmental Hazards and Disasters (Global Warming, Urban Heat Island, Atmospheric Pollution, Water Pollution, Land Degradation), National Programmes and Policies: Legal Framework, Environmental Policy, International Treaties, International Programmes and Polices (Brundtland Commission, Kyoto Protocol, Agenda 21, Sustainable Development Goals, Paris Agreement.

UNIT –V

Population and Settlement Geography Population Geography

Sources of population data (census, sample surveys and vital statistics, data reliability and errors). World Population Distribution (measures, patterns and determinants), World Population Growth (prehistoric to modern period). Demographic Transition, Theories of Population Growth (Malthus, Sadler, and Ricardo). Fertility and Mortality Analysis (indices, determinants and world patterns). Migration (types, causes and consequences and models), Population Composition and Characteristics (age, sex, rural-urban, occupational structure and educational levels), Population Policies in Developed and Developing Countries.

Settlement Geography

Rural Settlements (types, patterns and distribution), Contemporary Problems of Rural Settlements (rural-urban

migration; land use changes; land acquisition and transactions), Theories of Origin of Towns (Gordon Childe, Henri Pirenne, Lewis Mumford), Characteristics and Processes of Urbanization in Developed and Developing Countries (factors of urban growth, trends of urbanisation, size, structure and functions of urban areas). Urban Systems (the law of the primate city and rank size rule) Central Place Theories (Christaller and Losch), Internal Structure of the City, Concepts of Megacities, Global Cities and Edge Cities, Changing Urban Forms (peri-urban areas, rural-urban fringe, suburban , ring and satellite towns), Social Segregation in the City, Urban Social Area Analysis, Manifestation of Poverty in the City (slums, informal sector growth, crime and socialexclusion).

Unit–VI:

Geography of Economic Activities and Regional Development

Economic Geography

Factors affecting spatial organisation of economic activities (primary, secondary, tertiary and quarternary), Natural Resources (classification, distribution and associated problems), Natural Resources Management. World Energy Crises in Developed and Developing Countries.

Agricultural Geography

Land capability classification and Land Use Planning, Cropping Pattern: Methods of delineating crop combination regions (Weaver, Doi and Rafiullah), Crop diversification, Von Thunen's Model of Land Use Planning. Measurement and Determinants of Agricultural Productivity, Regional variations in Agricultural Productivity, Agricultural Systems of the World.

Industrial Geography

Classification of Industries, Factors of Industrial Location; Theories of Industrial Location (A. Weber, E. M. Hoover, August Losch, A. Pred and D. M. Smith). World Industrial Regions, Impact of Globalisation on manufacturing sector in Less Developed Countries, Tourism Industry, World distribution and growth of Information And Communication Technology (ICT) and Knowledge Production (Education and R & D) Industries.

Geography of Transport and Trade

Theories and Models of spatial interaction (Edward Ullman and M. E. Hurst) Measures and Indices of connectivity and accessibility; Spatial Flow Models: Gravity Model and its variants, World Trade Organisation, Globalisation and Liberalisation and World Trade Patterns. Problems and Prospects of Inter and Intra Regional Cooperation and Trade.

Regional Development

Typology of Regions, Formal and Fictional Regions, World Regional Disparities, Theories of Regional Development(Albert O. Hirschman, Gunnar Myrdal, John Friedman, Dependency theory of Underdevelopment, Global Economic Blocks, Regional Development and Social Movements in India

Unit – VII:

Cultural, Social and Political Geography Cultural and Social Geography

Concept of Culture, Cultural Complexes, Areas and Region, Cultural Heritage, Cultural Ecology. Cultural Convergence, Social Structure and Processes, Social Well-being and Quality of Life, Social Exclusion, Spatial distribution of social groups in India (Tribe, Caste, Religion and Language), Environment and Human Health, Diseases Ecology, Nutritional Status (etiological conditions, classification and spatial and seasonal distributional patterns with special reference to India) Health Care Planning and Policies in India, Medical Tourism in India.

Political Geography

Boundaries and Frontiers (with special reference to India), Heartland and Rimland Theories. Trends and Developments in Political Geography, Geography of Federalism, Electoral Reforms in India, Determinants of Electoral Behaviour, Geopolitics of Climate Change, Geopolitics of World Resources, Geo-politics of India Ocean, Regional Organisations of Cooperation (SAARC, ASEAN, OPEC, EU). Neopolitics of World Natural Resources.

Unit VIII:

Geographic Thought

Contributions of Greek, Roman, Arab, Chinese and Indian Scholars, Contributions of Geographers (Bernhardus Varenius, Immanuel Kant, Alexander von Humboldt, Carl Ritter, Scheafer & Hartshorne), Impact of Darwinian Theory on Geographical Thought. Contemporary trends in Indian Geography: Cartography, Thematic and Methodological contributions. Major Geographic Traditions (Earth Science, man- environment relationship, area studies and spatial analysis), Dualisms in Geographic Studies (physical vs. human, regional vs. systematic, qualitative vs. quantitative, ideographic vs. nomothetic), Paradigm Shift, Perspectives in Geography (Positivism, Behaviouralism, Humanism, Structuralism, Feminism and Postmodernism).

Unit IX:

Geographical Techniques

Sources of Geographic Information and Data (spatial and non-spatial), Types of Maps, Techniques of Map Making (Choropleth, Isarithmic, Dasymetric, Chorochromatic, Flow Maps) Data Representation on Maps (Pie diagrams, Bar diagrams and Line Graph, GIS Database (raster and vector data formats and attribute data formats). Functions of GIS (conversion, editing and analysis), Digital Elevation Model (DEM), Georeferencing (coordinate system and map projections and Datum), GIS Applications (thematic cartography, spatial decision support system), Basics of Remote Sensing (Electromagnetic Spectrum, Sensors and Platforms, Resolution and Types, Elements of Air Photo and Satellite Image Interpretation and Photogrammetry), Types of Aerial Photographs, Digital Image Processing: Developments in Remote Sensing Technology and Big Data Sharing and its applications in Natural Resources Management in India, GPS Components (space, ground control and receiver segments) and Applications, Applications of Measures of Central Tendency, Dispersion and Inequalities, Sampling, Sampling Procedure and Hypothesis Testing (*chi* square test, *t* test, ANOVA), Time Series Analysis, Correlation and Regression Analysis, Measurement of Indices, Making

Indicators Scale Free, Computation of Composite Index, Principal Component Analysis and Cluster Analysis, Morphometric Analysis: Ordering of Streams, Bifurcation Ratio, Drainage Density and Drainage Frequency, Basin Circularity Ratio and Form Factor, Profiles, Slope Analysis, Clinographic Curve, Hypsographic Curve and Altimetric Frequency Graph.

Unit – X:

Geography of India

Major Physiographic Regions and their Characteristics; Drainage System (Himalayan and Peninsular), Climate: Seasonal Weather Characteristics, Climatic Divisions, Indian Monsoon (mechanism and characteristics), Jet Streams and Himalayan Cryosphere, Types and Distribution of Natural Resources: Soil, Vegetation, Water, Mineral and Marine Resources. Population Characteristics (spatial patterns of distribution), Growth and Composition (rural-urban, age, sex, occupational, educational, ethnic and religious), Determinants of Population, Population Policies in India, Agriculture (Production, Productivity and Yield of Major Food Crops), Major Crop Regions, Regional Variations in Agricultural Development, Environmental, Technological and Institutional Factors affecting Indian Agriculture; Agro-Climatic Zones, Green Revolution, Food Security and Right to Food. Industrial Development since Independence, Industrial Regions and their characteristics, Industrial Policies in India. Development and Patterns of Transport Networks (railways, roadways, waterways,

airways and pipelines), Internal and External Trade (trend, composition and directions), Regional Development Planning in India, Globalisation and its impact on Indian Economy, Natural Disasters in India (Earthquake, Drought, Flood, Cyclone, Tsunami, Himalayan Highland Hazards and Disasters.

इकाई–1 भू–आकृति विज्ञान

महाद्वीपीय प्रवाह, प्लेट विवर्तिनिकी, आंतरिक एवं बाह्य बल। अनाच्छादन एंव अपक्षय, भूआकृतिक चक्र (डेविस और पेंक), ढ़ाल विकास का सिद्धांत और प्रकम, भू–संचलन (भूकंपनीयता, बलन, भ्रंश तथा ज्वालामुखीयता), स्थल निर्माण घटना और भू–आकृतिक संकट के कारण (भूकंप, ज्वालामुखी, भूस्खलन, हिमस्खलन)

इकाई–2 जलवायु विज्ञान

वायुमंडल की संरचना एवं संयोजन, सूर्यातप, पृथ्वी का ऊष्मा बजट, तापमान, वायुमण्डलीय दाब और पवने, वायुमण्डलीय परिसंचरण (वायु–राशियां, वाताग्र तथा ऊपरी वायुमण्डलीय वायु संचलन, चक्रवात एवं प्रतिचक्रवात (उष्णकटिबंधीय एवं शीतोष्ण कटिबंधीय), कोपेन एवं थार्नथ्वेट के जलवायु वर्गीकरण, ENSO घटनाएं -EL-NINO, LA NINA और दक्षिणी दोलन), मौसमी संकट और आपदाएं (चक्रवात, तड़ित झंझा, टोरनैडो, ओला वृष्टि, उष्ण एवं शीत तरंगें, वृष्टि प्रस्फोट, हिम झील प्रस्फोटन (GLOF), जलवायु परिवर्तनः विगत दशकों के जलवायु परिवर्तन के साक्ष्य एवं कारण, वैश्विक जलवायु पर मानव का प्रभाव।

इकाई–3. समुद्र विज्ञान

महासागरीय उच्चावच्च, संयोजनः तापमान, घनत्व और लवणता, संचरणः गर्म एवं ठण्डी धाराएं, लहरें, ज्वार–भाटा, समुद्र स्तर परिवर्तन, संकटः सुनामी एवं चक्रवात

इकाई–4 पर्यावरण भूगोल

घटकः पारिस्थितिकीय (भौगोलिक वर्गीकरण) और मानव पारिस्थतिकीय, क्रियाएंः पोषण स्तर, ऊर्जा प्रवाह, चक्रण (भू–रसायन, कार्बन, नाइट्रोजन एवं आक्सीजन) खाद्य श्रृखला, खाद्य जाल, और पारिस्थितिक पिरामिड, मानवीय पारस्परिक अंतर्संबंध और प्रभाव, पर्यावरणीय नैतिकता, गहन पारिस्थितिकी, पर्यावरणीय संकट और आपदाएं (वैश्विक तापन, नगरीय ऊष्ण द्वीप, वायुमण्डलीय प्रदूषण, जल प्रदूषण, भूमि निम्नीकरण), राष्ट्रीय कार्यक्रम और नीतियांः कानूनी प्राधार, पर्यावरणीय नीति, अंतर्राष्ट्रीय समझौते, अंतर्राष्ट्रीय कार्यक्रम एवं नीतियां (ब्रेटलैण्ड कमीशन, क्योटो प्रोटोकाल, कार्यसूची (एजेण्डा)–21, संधारणीय विकास एवं पेरिस सहमति)

अ. जनसंख्या भूगोल :

जनसंख्या आंकड़ों का स्रोत (जनगणना, प्रतिदर्श सर्वेक्षण (Sample survey) और जन्म–मरण सांख्यिकी, आंकड़ों की विश्वसनीयता और त्रुटि) विश्व जनसंख्या वितरण (मापन, प्रतिरूप और निर्धारक) विश्व जनसंख्या वृद्धि, (पूर्व ऐतिहासिक काल से आधुनिक काल तक), जनांकिकीय संक्रमण, जनसंख्या वृद्धि का सिद्धांत (माल्थस, सडलर, और रिकार्डो), जन्मदर और मृत्युदर विश्लेषण (संकेतक, निर्धारक और विश्व प्रतिरूप), जनसंख्या प्रवास (प्रकार, कारण, परिणाम और प्रतिमान Models) जनसंख्या संरचना एवं विशेषताएं (आयु, लिंग, नगरीय–ग्रामीण, व्यवसायिक संरचना एवं शैक्षिक स्तर), विकसित और विकासशील देशों में जनसंख्या नीतियां।

ब.अधिवास भूगोल :

ग्रामीण अधिवास (प्रकार, प्रतिरूप एवं वितरण), ग्रामीण अधिवासों की समकालीन समस्याएं, ग्रामीण–नगरीय प्रवास भूमि उपयोग में बदलाव, भूमि अधिग्रहण और संव्यवहार Transactions) नगरों की उत्पत्ति के सिद्धांत (गोरडन चिल्डे, हेनरी पिरेनी, लेविस ममफोर्ड) विकसित और विकासशील देशों में नगरीयकरण की विशेषता और प्रक्रिया (नगरों की वृद्धि के कारक, नगरीयकरण की प्रवृत्ति) आकार, संरचना और नगरीय क्षेत्र के कार्य) नगरीय पद्धतियां (प्राथमिक नगरों के नियम, श्रेणी आकार और नियम) केंद्रीय स्थान सिद्धांत (क्रिस्टालर एवं लॉश) नगरों की आंतरिक संरचना, महानगरीय संकल्पना, वैश्विक नगर और कोर नगर, नगर आकार परिवर्तन (पूर्व नगर क्षेत्र,

ग्रामीण–नगर सीमांत, नगरोपांत, मुद्रिक व उपग्रही नगर) नगरों में सामाजिक विसंयोजन, नगरीय सामाजिक क्षेत्र विश्लेषण, नगरीय गरीबी की अभिव्यक्ति (मलिन बस्ती, अनियमित क्षेत्र की वृद्धि, अपराध और सामाजिक बहिष्कार)।

इकाई–6 आर्थिक गतिविधि और क्षेत्रीय विकास का भूगोल

अ.आर्थिक : भूगोल

आर्थिक गतिविधि की व्यवस्था को प्रभावित करने वाले स्थानीय कारक (प्राथमिक, द्वितीयक, तृतीयक एवं चतुर्थक) प्राकृतिक संसाधनः (वर्गीकरण, वितरण एवं संबंधित समस्याएं) प्राकृतिक संसाधन प्रबंधन, विश्व में विकसित एवं विकासशील देशों में ऊर्जा संकट।

ब.कृषि भूगोलः

भूमि क्षमता वर्गीकरण एवं भूमि उपयोग नियोजन शस्य प्रतिरूप, शस्य संयोजन विधि क्षेत्र का निरूपण (जे0 सी0बीबर, दोई तथा रफीउल्लह), शस्य विविधीकरण, वॉन थ्यूनन का भूमि उपयोग नियोजन मॉडल कृषि उत्पादकता के मापन एवं निर्धारक, कृषि उत्पादकता में क्षेत्रीय विभिन्नता, विश्व की कृषि पद्धतियां

स. औद्योगिक भूगोलः

उद्योगों का वर्गीकरण, उद्योगों के स्थान निर्धारण के कारक, उद्योगों के स्थान निर्धारण के सिद्धांत, (ए. वेबर, ई. एम हूबर, ऑगस्ट लॉश, ए. प्रेड एवं डी. एम. स्मिथ) विश्व के औद्योगिक प्रदेश, अल्प विकसित देशों के विनिर्माण क्षेत्र पर वैश्वीकरण का प्रभाव, पर्यटन उद्योग, सूचना एवं संचार प्रौद्योगिकी ICT एवं ज्ञान वृद्धि (शिक्षा एवं अनुसंधान विकास) उद्योग।

स. परिवहन एवं व्यापार भूगोलः

स्थानीय पारस्परिक अन्योन्यक्रिया (Interaction) के सिद्धांत और मॉडल (एडवर्ड उलमैन, एम. ई. हर्स्ट) संबद्धतांक और अभिगम्यता सूचकांक मापन, स्थानीय प्रवाह मॉडल, गुरुत्वाकर्षण मॉडल और इसकी भिन्नता, विश्व व्यापार संगठन, वैश्विकरण और उदारीकरण की विश्व व्यापार पद्धति, अंतः एवं अंतराप्रादेशिक सहयोग एवं व्यापार की संभावनाएं एवं समस्याए।

य. प्रादेशिक विकासः

प्रदेश के प्रकार , औपचारिक और कार्यात्मक प्रदेश, विश्व प्रादेशिक विविधता,, प्रादेशिक विकास के सिद्धांत (अलवर्ट ओ हर्शमैन, गुनार मिर्डाल, जौन फाईडमैन), अल्पविकसित अधीन राष्ट्र का निर्भरता सिद्धांत, वैश्विक आर्थिक खण्ड, भारत में प्रादेशिक विकास और सामाजिक आन्दोलन।

इकाई–7 सांस्कृतिक, सामाजिक एवं राजनीतिक भूगोल

अ. सांस्कृतिक, सामाजिक :

संस्कृति की संकल्पना, सांस्कृतिक जटिलताएं, क्षेत्र एवं प्रदेश, सांस्कृतिक विरासत, सांस्कृतिक पारिस्थितिकी, सांस्कृतिक अभिसरण, सामाजिक संरचना एवं प्रकृम, सामाजिक कल्याण और जीवन की गुणवत्ता, सामाजिक अपवर्जन, भारत में सामाजिक समूहों का स्थानीय वितरण (जनजाति, जाति धर्म एवं भाषाएं), पर्यावरण और मानव स्वास्थ्य, रुग्णता पारिस्थितिकी, पोषणता की स्थिति (निदान की स्थिति, वर्गीकरण और स्थानीय एवं मौसमी वितरण का प्रतिरूप विशेषतः भारत के संदर्भ में) भारत में स्वास्थ्य सुरक्षा की योजना और नीति, भारत में स्वास्थ्य पर्यटन।

ब. राजनीतिक भूगोलः

सीमाएं एवं सीमान्त 'की संकल्पना (विशेषकर भारत के संदर्भ में) हर्टलैण्ड एवं रिमलैण्ड सिद्धांत। राजनीतिक भूगोल की प्रवृत्ति और विकास, संघवाद का भूगोल, भारत में निर्वाचन सुधार, निर्वाचन व्यवहार के निर्धारक, जलवायु परिवर्तन की भू–राजनीति, विश्व संसाधनों की भू–राजनीति, भारत की हिन्द–महासागरीय भू–राजनीति, प्रादेशिक सहयोग के संगठन (SAARC, ASEAN, OPEC, EU) विश्व संसाधनों की नवराजनीति।

इकाई–8 भौगोलिक चिंतन

भौगोलिक ज्ञान में ग्रीक, रोमन अरब, चीनी एवं भारतीय भूगोल वेत्ताओं का योगदान, भूगोल वेत्ताओं का योगदान (वरेनियस, ईमैनुएल कांट, अलेक्जेंडर, हम्बोल्ट, कार्ल रिट्टर, शेफर और हर्टशोन) भौगोलिक चिंतन पर डार्विन का प्रभाव। भारतीय भूगोल की समकालीन प्रवृत्तिः भूगोल में कार्टोग्राफी और थिमेटिक विधियों का योगदान प्रमुख भौगोलिक परम्पराएं (भू–विज्ञान, मानव पर्यावरण अंर्तसंबंध, क्षेत्र अध्ययन और स्थानीय विश्लेषण), भौगोलिक अध्ययन में दवैतवाद (भौतिक बनाम मानव, प्रादेशिक बनाम सुव्यवस्थित, निश्चियवाद बनाम संभववाद, गुणात्मक बनाम मात्रात्मक, स्वरूपी बनाम नियमावेषी), प्रतिमान विस्थापन, भौगोलिक परिदृश्य (प्रत्यक्षवाद, व्यवहारिकवाद मानववाद, संरचनावाद, नारीवाद एवं उत्तर आधुनिकवाद)।

इकाई–9 भौगोलिक तकनीकियां

भौगोलिक सूचना एवं आंकड़ों के स्रोत (स्थानीय एवं गैर स्थानीय) मानचित्र के प्रकार, मानचित्र निर्माण की विधि (वर्णमात्री, समघनत्व (Isarithmic), जनघनत्वमितिक (Dasymetric), वर्णप्रतीकी प्रवाह मानचित्र), मानचित्र पर आंकड़ों का निरूपण (पाई आरेख, दण्डारेख, रेखा आरेख, GIS आंकडा आधार (चित्र रेखापुंज और सदिश आंकड़ा प्रारूप एवं आरोपण आंकड़ा प्रारूप), भौगोलिक सूचना तंत्र के कार्य (रूपांतरण, संपादन और विश्लेषण), अंकीय उत्थान मॉडल (DEM), भूसंदर्भ (समन्वय पद्धति मानचित्र प्रक्षेप और आंकड़ा), भौगोलिक सूचना तंत्र का उपयोग (विषयात्मक मानचित्रकला, स्थानिक निर्णय समर्थन पद्धति), आधारभूत सुदूर संवेदन (वैद्युत चुंबकीय स्पेक्ट्रम, संवेदक एवं प्लेटफार्म, वियोजन एवं वियोजन के प्रकार, वायव छायाचित्र (फोटो) के तत्व, उपग्रह प्रतिबिंब की विवेचना, फोटोग्राममिति) वायव फोटोग्राफ की किस्में, अंकीय प्रतिबिंब प्रक्रमण, सुदूर संवेदन की तकनीकी का विकास, वृहद आंकड़ों का आदान प्रदान और इसका भारत के प्राकृतिक संसाधनों के प्रबंधन में उपयोग। GPS घटक एवं उपयोग (अंतरिक्ष, भूतल नियंत्रण एवं अभिग्राही सूचकांक), केंद्रीय प्रवृत्ति मापन का उपयोग, परिक्षेपण और असमानताएं, प्रतिचयन, प्रतिचयन कार्यविधि और परिकल्पना परिक्षण (chi squire test, t test ANOVA) समय श्रेणी विश्लेषण, सहसंबंध और समाश्रयण (regression) विश्लेषण, सूचकांकों का मापन, सूचकांक मापनी का निर्माण, संयुक्त सूचकों की संगणना, प्रधान घटक विश्लेषण और समूह विश्लेषण, आकारमिति विश्लेषणः सरिताओं का क्रमीकरण, विभाजन अनुपात, अपवाह घनत्व एवं अपवाह आवृत्ति, बेसिन परिक्रामी अनुपात एवं द्रोणी रूप, परिच्छेदिकाएं, ढ़लान विश्लेषण, प्रवणता वक्र, उच्चतादर्शी वक्र, तुंगता बारंबारता आरेख

इकाई–10 भारत का भूगोल

भारत के प्रमुख भू–आकृतिक क्षेत्र एवं उनकी विशेषताएं, अपवाह तंत्र, (हिमालय एवं प्रायद्वीप), जलवायु ऋत्विक मौसमी विशेषताएं, जलवायु विभाजन, भारतीय मानसून (रचनातंत्र एवं विशेषताएं) जेटधारा एवं हिमालय वाष्प हिमानि क्रायोस्फेयर। प्राकृतिक संसाधनों के प्रकार एवं वितरण, मिट्टी, वनस्पति, जल, खनिज एवं महासागरीय संसाधन। जनसंख्या की विशेषताएं (स्थानीय प्रतिरूप एवं वितरण), वृद्धि एवं संरचना (ग्रामीण–नगरीय, आयु लिंग, व्यवसायिक, शिक्षा, मानवजातीय एवं धार्मिक)। जनसंख्या के निर्धारक, भारत में जनसंख्या नीति, कृषि (उत्पादन, उत्पादकता एवं प्रमुख खाद्य फसलों की उपज) प्रमुख फसल प्रदेश, कृषि विकास में प्रादेशिक विविधता, भारतीय कृषि को प्रभावित करने वाले तकनीकी एवं संस्थागत कारक, कृषि–जलवायु प्रदेश, हरित क्रांति, खाद्य सुरक्षा एवं भोजन का अधिकार। स्वतंत्रता प्राप्ति से अब तक औद्योगिक विकास, औद्योगिक प्रदेश एवं उनकी विशेषताएं, भारत में औद्योगिक नीति। परिवहन जल का विकास एवं प्रतिरूप (रेल, सड़क, जल मार्ग, वायु परिवहन एवं पाइपलाइन), आंतरिक एवं बाह्य व्यापार (प्रवृत्ति, संरचना एवं दिशा), भारत में प्रदेशिक विकास नियोजन। वैश्विकरण का भारत की अर्थव्यवस्था पर प्रभाव, भारत में प्राकृतिक आपदाएं (भूकंप, सुखा, बाढ़, चक्रवात, सुनामी, हिमालय उच्चभूमि संकट और आपदाएं)।

Subject: Ancient History (015)
विषय : प्राचीन इतिहास

इकाई प्रथम–स्रोत

(i) पुरातात्विक स्रोतः अन्वेषण, उत्खनन, पुरालेख, मुद्राशास्त्र एवं स्मारक
(ii) साहित्यिक स्रोतः स्वदेशी साहित्यः प्राथमिक और द्वितीयक, धार्मिक और गैर–धार्मिक साहित्य
(iii) विदेशी यात्रियों का विवरण : ग्रीक, चीनी और अरबी

इकाई द्वितीय–प्रागैतिहास एवं आद्य इतिहास

(i) मानव एवं पर्यावरण–भौगोलिक कारक, आखेट एवं संग्रह (पुरापाषाण तथा मध्यपाषाण)
(ii) कृषि का प्रारम्भ (नवपाषाणकाल तथा ताम्रपाषाणकाल)
(iii) हड़प्पा सभ्यता–उद्‌भव, तिथि, विस्तार, विशेषताएं, पतन तथा महत्व
(iv) प्रथम नगरीकरण
(v) चित्रित धूसर मृद्‌भाण्ड एवं उत्तरी काली चमकीली मृद्‌भाण्ड

इकाई तृतीय–वैदिक एवं वैदिकोत्तर काल

(i) प्रवास एवं बस्तियाँ, आर्यन समस्या
(ii) सामाजिक तथा राजनीतिक संस्थाओं का विकास
(iii) धार्मिक तथा दार्शनिक विचार, अनुष्ठान तथा पद्धातियाँ
(iv) लौह प्रौद्योगिकी का परिचय
(v) दक्षिण भारत की महापाषाणिक संस्कृति

इकाई चतुर्थ–महाजनपद काल

(i) राज्यों का निर्माण (महाजनपद) गणराज्य तथा राजतंत्र
(ii) नगर केन्द्रों का उदय;व्यापार–मार्ग; आर्थिक संवृद्धि; सिक्कों का प्रचलन
(iii) जैन धर्म और बौद्ध धर्म का उद्‌य
(iv) मगध तथा नन्दों का उत्थान
(v) ईरान तथा मेसेडोनीया के आक्रमण और उनका प्रभाव

इकाई पंचम–मौर्य एवं मौर्योत्तर काल

(i) मौर्य साम्राज्य की स्थापना, चन्द्रगुप्त, कौटिल्य तथा अर्थशास्त्र
(ii) अशोक; धर्म की संकल्पना; राजादेश; ब्राह्मी तथा खरोष्ठी लिपियाँ
(iii) प्रशासन; अर्थव्यवस्था; वास्तुकला तथा मूर्तिकला; बाहरी सम्पर्क
(iv) साम्राज्य का विघटन
(v) शुंग, कण्व, हिन्द–यवन, शक–क्षत्रप एवं कुषाण
(vi) नगर केन्द्रों का विकास; अर्थव्यवस्था, सिक्का, धर्मों का विकास, महायान
(vii) सामाजिक दशाएँ, कला तथा वास्तुकला, साहित्य तथा विज्ञान

इकाई शष्टम–गुप्त एवं गुप्तोत्तर काल

(i) गुप्तों का राजनीतिक एवं सांस्कृतिक इतिहास
(ii) गुप्तों के सिक्के; भूमि अनुदान, नगर केन्द्रों का पतन
(iii) मन्दिर स्थापत्य का प्रारम्भ, संस्कृत भाषा एवं साहित्य का विकास
(iv) विज्ञान प्रौद्योगिकी, खगोल विज्ञान तथा चिकित्सा विज्ञान का विकास
(v) गुप्त–वाकाटक सम्बन्ध
(vi) पुष्यभूति वंश–हर्षवर्धन और उसका समय–प्रशासन और धर्म

इकाई सप्तम–क्षेत्रीय राज्यों का उदय, दक्कन एवं दक्षिण भारत

(i) दक्कन के राज्य–कदंब; गंग, पश्चिमी और पूर्वी चालुक्य, राष्ट्रकूट, कल्याणी के चालुक्य, काकतीय, होयसल और यादव

(ii) दक्षिण भारत के राज्य; पल्लव, चोल, चेर, और पांण्ड्य

(iii) पूर्वी भारत के राज्य; पाल और बंगाल के सेन, कामरूप का वर्मन

(iv) पश्चिमी भारत के राज्य; वल्लभी के मैत्रक और गुजरात के चालुक्य

(v) उत्तर भारत के राज्य; गुर्जर–प्रतिहार, कलचुरी–चेदि, गहड़वाल और परमार

(vi) खारवेल, सातवाहन

(vii) संगम युग–साहित्य, संस्कृति, प्रशासन, अर्थव्यवस्था, सामाजिक व्यवस्था, कला तथा वास्तुकला

इकाई अश्टम–पूर्व मध्यकाल

(i) प्रारंभिक मध्यकालीन भारत की विशेषताएँ ; प्रशासन और राजनीतिक संरचना

(ii) भारतीय सामंतवाद

(iii) कृषि अर्थव्यवस्था–भूमि अनुदान, भूमि अधिकार, कराधान प्रणाली, सिक्के और मुद्रा प्रणाली

(iv) व्यापार और नगरीकरण–दक्षिण–पूर्व एशिया में व्यापार और शहरी बस्तियाँ, बंदरगाह और व्यापार मार्ग एवं व्यापार श्रेणी, व्यापार और उपनिवेशीकरण का प्रारूप

(v) धर्मों का विकास–वैष्णव धर्म और शैव धर्म, मंदिर वास्तुकला, दान, तीर्थ और भक्ति, तमिल भक्ति आंदोलन–शंकर, माधव और रामानुजाचार्य

(vi) समाज–वर्ण, जाति व्यवस्था, महिलाओं की स्थिति एवं विवाह

(vii) शिक्षा और शैक्षिक संस्थान–नालंदा, विक्रमशिला और वल्लभी

(viii) अरब संपर्क–सुलेमान गजनवी विजय, अलबरूनी का विवरण

इकाई नवम–शोध प्रविधि एवं इतिहास लेखन

(i) इतिहास–अर्थ, परिभाषा, क्षेत्र, महत्व एवं मूल्य

(ii) इतिहास में वस्तुनिष्ठता एवं पूर्वाग्रह

(iii) इतिहास के दृष्टिकोण–प्राच्यवादी, साम्राज्यवादी, राष्ट्रवादी, मार्क्सवादी, एवं उपाश्रयी (सबाल्टर्न)

(iv) क्षेत्रीय इतिहास लेखन का महत्व

Unit-1- Sources

(i) Archaeological Sources: Exploration, Excavation, Epigraphy, Numismatics and Monuments

(ii) Literary Sources: Indigenous: Primary and Secondary, religious and Non-religious literature

(iii) Foreign Travelers Accounts: Greek, Chinese and Arabic

Unit-2-Pre–history and Proto–history

(i) Man and Environment–geographical factors. Hunting and gathering (Paleolithic and Mesolithic)

(ii) Beginning of agriculture (Neolithic and Chalcolithic)

(iii) Harappan Civilization, origin, date, extent, characteristics, decline and significance

(iv) First urbanization

(v) Painted Grey Ware and Northern Black Polished Ware

Unit-3-Vedic & Later Vedic Periods

(i) Migrations and settlements; Aryan problems

(ii) Evolution of social and political institutions

(iii) Religious and philosophical ideas, rituals and practices

(iv) Introduction of Iron Technology

(v) Megalithic Culture of South India

Unit-4-Period of Mahajanapadas

(i) Formation of States (Mahajanapadas); Republics and Monarchies
(ii) Rise of urban centres; trade routes; economic growth; introduction of coinage
(iii) Emergence of Jainism and Buddhism
(iv) Rise of Magadha and Nandas
(v) Iranian and Macedonian Invasions and their impact

Unit-5- Mauryan and Post Mauryan Periods

(i) Foundation of the Mauryan Empire, Chandragupta, Kautilya and Arthashastra
(ii) Ashoka; Concept of Dharma; Edicts; Brahmi and Kharosthi scripts
(iii) Administration; economy; architecture and sculpture; external contacts
(iv) Disintegration of the empire
(v) Sungas, Kanvas, Indo–Greeks, Saka-Ksatrapas and Kushanas
(vi) Growth of urban centres, economy, coinage, development of religions, Mahayana,
(vii) Social conditions, Art and architecture, literature and Science

Unit-6-Gupta and Post Gupta Periods

(i) Political and Cultural History of Guptas
(ii) Coinage of the Guptas, land grants, decline of urban centres
(iii) Beginning of Temple Architecture, development of Sanskrit language and literature
(iv) Development of Science Technology, Astronomy, Mathematics and Medicine
(v) Gupta–Vakataka Relations
(vi) Pushyabhuti dynasty-Harshavardhan and his times: Administration and Religion

Unit-7-Emergence of Regional Kingdoms, Deccan and South India

(i) Kingdoms in Deccan: Kadambas, Gangas, Westerrn and Eastern Chalukyas, Rastrakutas, Kalyani's Chalukyas, Kakatiyas, Hoysalas and Yadavas
(ii) Kingdoms in South India: Pallavas, Cholas, Ceras, and Pandyas
(iii) Kingdoms in Eastern India: Palas and Senas of Bengal, Varmanas of Kamrup
(iv) Kingdoms in Western India: Maitrakas of Vallabhi and Chalukyas of Gujarat
(v) Kingdoms in North India: Gurjara-Pratiharas, Kalachuri-Chedis, Gahadavalas and Paramaras
(vi) Kharavela, the Satavahanas
(vii) Sangam Age: Literature, Culture, Administration; economy, Social system, Art and Architecture

Unit-8-Early Medieval Period

(i) Characteristics of early Medieval period : Administration and Political Structure
(ii) Indian Feudalism
(iii) Agrarian Economy: Land Grants, Land Rights, Taxation System, Coins and Currency System
(iv) Trade and Urbanization: Pattern of Trade, and urban settlements, Port and trade routes, trade guilds, trade and colonization in South-east Asia
(v) Evolution of religions: Vaisnavism and Saivism, Temple architecture, Dana, Tritha and Bhakti, Tamil Bhakti movement: Shankara, Madhava and Ramanujacharya
(vi) Society : Varna, Caste system, position of women and marriage
(vii) Education and Educational Institutions–Nalanda,Vikramshila and Vallabhi
(viii) Arab contacts : Suleiman Ghaznavi Conquests, Al-biruni's Accounts

Unit-9-Research Methodology and Historiography

(i) History: Meaning, definitions, scope, importance and values
(ii) Objectivity and Bias in History
(iii) Approaches of History: Orientalist, Imperialist, Nationalist, Marxist and Subaltern
(iv) Importance of Regional History

Subject: Zoology (016)
विषय–(जन्तुविज्ञान)

Unit-1:Biosystematics and Animal Taxonomy

Definition and basic concepts of biosystematics and taxonomy, Trends in biosystematics concept of different conventional and new aspects, Speciation, Mechanism of speciation, different kinds of taxonomic keys, Zoological records.

Unit-2: Molecular Cell Biology

Biomembrane, symport, antiport, microfi laments, microtubules, intermediate filaments, cell-cellsignalling, Cell surface receptors, second messenger system, cell- cell adhesion, collagen, regulation of cell cycle.

Unit-3: Genetic Engineering

Concept of rDNA technology, DNA modifying enzymes, cloning vectors, Polymerase chain reaction (PCR), DNA finger printing, DNA foot printing, gene editing.

Unit-4: Biochemistry

Protein structure and classification, Structure of nucleic acid (DNA and RNA), Structure and classification of Carbohydrates, Glycolysis, Citric acid cycle, Oxidative phosphorylation, Structure and classification of lipids, Fatty acid metabolism; synthesis & degradation, Nomenclature& classification of enzyme, Allosteric enzymes, Enzyme kinetics, Regulation of enzyme action.

Unit-5: Molecular cytogenetics

DNA replication, DNA repair, transcription, translation, Post transcriptional modification, capping & Polyadenylation, Splicing, RNA editing, Genetic code & wobble hypothesis, Regulation of gene expression in prokaryotes; Lac Operon & tryptophan in E-coli, Regulation of gene expression in Eukaryotes; DNA methylation, DNA acetylation, Epigenetic regulation, polytene and Lamp brush chromosomes, Chromosome banding techniques, Human karyotypes.

Unit-6: Immunology

Innate & Acquired immunity, Antigen, Anti body structure and function, Maturation and activation of cell mediated immunity, Monoclonal antibodies, genetic recombination and antibody diversity.

Unit-7: Development biology

Cell division and cell differentiation, Sex determination, spermatogenesis, oogenesis, Fertilization and cleavage, Blastulation, Gastrulation, Fat map of germinal layers, Placentation in mammals, Stem cells.

Unit-8: Genetics

Mendelian principles- Dominance, segregation and independent assortment, Concept of gene, Extra chromosomal inheritance, epistasis, gene interaction, pleiotropy, Linkage, crossing over, Molecular anatomy of eukaryotic chromosome and telomere, Mutation- Types and causes, Oncogene and tumor suppressor genes, genetic pathways to cancer, chromosomal abnormality in malignancy, Apoptosis.

Unit-9: Fish biology

Classification of fishes up to families, Classification of elasmobranchii, crossopterygii and actinopterygii, Phylogenetic analysis & Morphological analysis of bony fishes. Fisheries management, Major estuarine system of India, Parental care in fishes, Fish migration.

Unit-10: Vertebrate'sphysiology

Respiratory system, digestive system, circulatory system and functioning of Heart, excretory system and metanephric kidney, nervous system and sense organs, Endocrine glands & their secretions, Basic mechanism of hormonal action, Hypothalamo-hyperphysialsystem & neural control of pituitary gland, Hormonal disorders.

Unit-11: Applied Zoology

Insect diversity, coloration and mimicry in insects, Insects and human, insects and parasitism, pathogenic-protozoan &helminthes, insect vectors of human diseases, insect pest management, Lac culture, Sericulture, Apiculture, Pearl culture.

Subject : Mathematics (017)
विषय (गणित)

Analysis

Set theory, finite, countable and uncountable sets, function, real number system as a complete ordered field, Archimedean property, supremum, infimum. Sequences and series, convergence, Bolzano Weierstrass theorem, Heine Borel theorem. Limit and Continuity, uniform continuity, differentiability, mean value theorem. Sequences and series of functions, uniform convergence. Reimann sums and Reimann integral, improper integrals.

Lebesgue measure, measurable sets, measurable functions, Riemann and Lebesgue integral and their properties. Differentiations, functions of bounded variations.

Complex Analysis

Introduction of complex numbers, transcendental functions such as exponential, trigonometric and hyperbolic functions. Analytic functions, Cauchy-Riemann equations and harmonic function. Contour integral, Cauchy's theorem, Cauchy's integral formula, Liouville's theorem, maximum modulus principle. Power series, Taylor's series, Laurent's series, calculus of residues. Conformal mappings, Mobius transformations.

Numerical Analysis

Numerical solutions of algebraic equations, method of iteration and Newton-Raphson method, rate of convergence. Solution of systems of linear algebraic equations by using Gauss elimination and Gauss-Seidel methods. Finite differences, Newton's, Gauss's and Lagrange interpolation formula, numerical differentiation and integration. Numerical solution of ODEs using Euler, modified Euler, Picard and Runge-Kutta methods.

Algebra

Permutations, combinations, pigeon-hole principle, inclusion-exclusion principle, Mathematical Induction. Fundamental theorem of arithmetic, divisibility in congruences, Chinese Remainder Theorem, Euler - function. Groups, subgroups, normal subgroups, isomorphic groups, cyclic groups, permutation groups, Cayley's theorem, Sylow's theorem. Ring, Field and Galois Theory.

Linear Algebra

Vector spaces, subspaces, linear dependence and independence, basis, dimension, linear transformations. Algebra of matrices, rank and determinant of matrices, linear equations. Eigenvalues and eigenvectors, Cayley-Hamilton's theorem. Matrix representation of linear transformations. Change of basis, canonical forms, diagonal forms, and triangular forms. Inner product spaces, orthonormal basis. Quadratic forms.

Topology

Metric spaces and Topological spaces; special topologies, subspaces, product spaces and quotient spaces, continuity and homeomorphisms, connectedness and compactness.

Ordinary and Partial Differential Equations

First order ODEs, General theory of homogeneous and non-homogeneous linear ODEs, Second and higher order linear differential equation, variation of parameters, Strum-Liouville boundary value problems, Green's function.

Lagrange method, Standard forms and Charpit's methods for solving first order PDEs, Cauchy problem for first order PDEs. Classification of second order PDEs, method of separation of variables for Laplace, Heat and Wave equations.

Operations Research

Linear programming, simplex method, Big-M and Two-phase method, duality and post optimal analysis, transportation model and assignment problems, integer linear programming, non-linear programming problem. Queuing systems, reliability and hazard rate function of series and parallel systems. Inventory models, game theory, network models, simulation, and dynamic programming.

U.P. R.T. Open University, Prayagraj
Ph. D. Guidelines (Revised) - 2026

General

1. Ph. D. Programmes will be offered in various subjects as per prior approval of the Academic Council of the UPRTOU from time to time in **regular mode**.
2. Every candidate registered for the Ph. D. Programme shall be required to pursue the Programme under a approved supervisor from the University.
3. The allocation of research topic and research supervisors for a selected scholar shall be decided by the University Research Degree Committee depending on the number of scholars per Research Supervisor, the available specialization among the Supervisors on the proposal of concerned School Board.
4. The Academic Council shall decide on an annual basis a pre-determined and manageable number of Ph. D. scholars to be admitted, depending on the number of available Research Supervisors.
5. The University shall notify well in advance on the UPRTOU website and through advertisement in at least two national newspapers, of which at least one shall be in the Hindi language, the number of seats for admission, subject/ discipline and category wise distribution of available seats, criteria for admission, procedure for admission, Entrance test centre(s) and other relevant information's for the candidates.

Eligibility criteria for admission in Ph. D. Programme

The Candidates who have completed:

1. A I-year/2 semester master's degree programme after a 4–year/8 semester bachelor's degree programme or a 2 year/4 semester master's degree programme after a 3-year bachelor's degree programme or qualifications declared equivalent to the master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed **or**

   Equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in the country to assess, accredit or assure quality and standards of the educational institution.

2. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/ Differently-abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the UGC from time to time.
3. Provided that a candidate seeking admission after a 4- year/8 semester bachelor's degree programme should have a minimum of 75% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/ Differently-abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the UGC from time to time.
4. Candidates who have completed the M. Phil. Programme with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home

country or any other statutory, authority in that country to assess, accredit or assure quality and standards or educational institutions, shall be eligible for admission to the Ph. D. programme. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/ Differently-abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the UGC from time to time.

Registration:

1. **After selection in the combined merit (the JRF/NET or equivalent test/Entrance Test Scores and Interview Scores) announced by UPRT Open University the candidate shall be admitted to Pre-Ph. D. course work and after approval of tentative research title and allotted supervisor the candidate shall be provisionally enrolled for Ph. D. program. The successful completion of the Pre-Ph. D. course work shall be treated as prerequisite for Ph. D. Programme.**
2. The selected candidates already holding M. Phil. Degree and having cleared the M. Phil Course work with at least 55% marks in aggregate and admitted to the Ph. D. Programme shall be eligible to proceed to do research work leading to Ph. D. degree. All other candidates admitted to the Ph. D. Programme shall be required to complete the Pre-Ph. D. course work prescribed by the concerned School of Studies. A relaxation of 5% of marks, from 55% to 50% may be allowed for those belonging to SC/ST/OBC (Non creamy layer)/ differently–abled, Economically Weaker Section (EWS), and other categories of candidates as per decision of the U.G.C. from time to time.
3. There shall be two categories of Ph. D. candidates: **Full-time and Part-time**. Part time Ph. D. will be allowed provided all the conditions mentioned in the extant of Ph. D. ordinance are met. All those who are offered a fellowship by the University or by any other agency and registered with the University to pursue a research degree programme of the University shall belong to the category of full-time candidates. In other cases, the Research Degree Committee may allow registration of **full-time candidates** who do not have fellowships. The full –time candidates shall work on their projects at Prayagraj. Candidates who are employed and desirous of pursuing a research degree programme may be permitted to register as **part- time candidate**. Ordinarily, teachers and other staff while continuing on their jobs shall belong to this category. But such candidates have to devote not less than 200 days with the supervisor for his/her research work and the University shall obtain a **"No Objection Certificate (NoC)"** through the candidates for a part-time Ph. D. programme from the appropriate authority in the organization where the candidate is employed, clearly, stating that:

   d. The candidate is permitted to pursue studies on a part-time basis.

   e. His/her official duties permit him/her to devote sufficient time for research.

   f. If required, he/she will be relieved from the duty to complete the course work.

4. All registrations to Ph. D. Programmes shall be provisional and the same shall be confirmed according to the procedures prescribed by the Academic Council from time to time.
5. After declaration of step III result, a candidate, who has been offered admission for Ph. D. Programme shall deposit the prescribed Pre-Ph. D. course work fee within a prescribed period and the programme fee with registration fee within a period of six weeks from the date of approval of **tentative research title** and **research supervisor**, failing which his/her admission may be treated as cancelled. However, a candidate who has been registered for Ph. D. Programme **the Ph. D. registration of a candidate may be cancelled for any of the following reasons:**

   (i) Non-payment of fees within due date

   (ii) Unsatisfactory progress of research

   (iii) Non-compliance with the provisions of the ordinances

   (iv) Non-completion of Pre-Ph. D. course work

(v) Failure to submit the Ph. D. Thesis within the time limit prescribed.

6. The Research Degree committee may consider requests for **re-registration** from candidates whose registration is cancelled. An application for re- registration, if made within a period not exceeding one year from the cancellation of the candidate's registration, may be considered only on the recommendation of the Director concerned.
7. Except fee for registration all other fees prescribed by the University shall always be charged on annual basis or as decided by the university from time to time.

Programme Fee

1. Candidates having applied or admitted to Ph. D. programme of the University shall pay the fees as determined by the Academic Council.
2. The fees shall be payable on such dates and such mode as may be notified.
3. A Candidate, who has been offered registration for Ph. D. Programme, shall deposit the prescribed registration fee, programme fee and Pre-Ph. D. course work fee within a period of six weeks from the date of approval of research topic and research supervisor, failing which his/her registration may be treated as cancelled.
4. Generally the deposited fee by the candidate will be non-refundable. In specific case or condition, the Vice Chancellor will take a decision in the light of university rules or direction of the UGC which shall be final.

Entrance Test Procedure

There will be an objective type question paper of one and half hour duration (90 minutes) in Pre-Ph.D. Entrance Test containing 70 Multiple Choice Answer questions. The items of the Entrance Test will consist of 50% of research methodology and 50% will be subject specific. The Entrance test will be conducted at the University campus or examination centre(s) situated in Prayagraj city only as per number of examinees.

Selection Process For Admission

The JRF/NET/Equivalent test qualified/appeared Candidates or the candidates who will meet the required cut off of the Entrance Test will be called for an interview. The overall merit list would be prepared on the basis of JRF/NET/Equivalent test scores or marks obtained in the written test and interview.

Steps of Selection Process:

Step I : **Ph.D. Entrance Test**	**Category-1: (NET with JRF or Equivalent Qualified Candidates)** Exempted from Entrance Test **Category-2: (Only NET or Equivalent Qualified Candidates in the Current year)** Exempted from Entrance Test **Category-3: (NET or Equivalent Exam Qualified for Admission to Ph.D. Programme Candidates in the Current year)** Exempted from Entrance Test **Category-4: (Other than Category 1, 2 & 3 Candidates)** UPRT Open University Ph.D. Entrance Test will be merely **qualifying** for selection process to Ph.D. Programme. For this the candidates are required to obtain the minimum 50 percent marks on the Entrance Test to be conducted. A relaxation of 5% of marks (from 50% to 45%) shall be allowed for the candidates belonging to SC/ST/OBC (Non –creamy Layer)/Differently-abled category, Economically Weaker Section(EWS), and other categories of candidates as per the decision of UGC from time to time.

Step II : <u>Interview</u> **All Candidates of Category 1, 2, 3 and Qualified candidates of category 4**	A research proposal in the area of research interest of the applicant's which will be submitted to the interview board. A power point presentation of the said research proposal by the applicant must be presented before the interview board. The presentation of tentative synopsis followed by an Interview shall be organized by the concerned school of studies. Candidates must bring all the relevant documents during interview.		
Step III : **<u>Merit List Preparation</u>**	As per availability of seats, admission for Ph.D. Program shall be given to the candidates on the basis of merit list. **The reservation policy of Uttar Pradesh State Government will be followed in admission and other process.** Amongst those candidates who have cleared Step-I, and Step II a merit list in 100 Points comprise of 70 % Scores of JRF/NET/Equivalent Exam or Entrance Test scores, and Scores on presentation of tentative synopsis followed by an Interview shall be prepared subject-wise and **category-wise. Break–up of 100 Merit Base Points shall be as below:**		
S.N.	**Particulars**	**Maximum Marks**	**Maximum Point**
3.	UGC-**JRF/NET or Equivalent** in the Concern Subject **Scores or Entrance Test**	**70 percent** of JRF/NET Exam Scores	**70**
4.	Presentation of Tentative Synopsis through PPT and **Interview**	**30**	**30**
	Total	**100**	**100**

The presentation of tentative synopsis followed by an Interview shall be organized by the concerned school of studies. The reservation rules/policy of U.P. Govt. will be followed for admission. Vertical and horizontal reservation rules/policy of U.P. Govt. will be implemented as per availability of seats in the particular subject under 100 point's roster rule. If there is no eligible or selected candidate available in a particular category of reservation, the backlog will followed for the coming session only and after that those seats will convert and filled with open category.

Course Work

1- The credit assigned to the Pre-Ph. D. Course work shall be a minimum of 12 credits and a maximum of 16 credits, including a "Research and Publication Ethics" course as notified by UGC vide D.O. No. F.1-1/2018 (Journal/CARE) in 2019 and a research methodology course. The Academic Council can also recommend UGC recognized online courses or MOOCS as part of the credit requirements for the Ph. D. programme.

2- The course work shall be treated as prerequisite for Ph. D. thesis submission for evaluation. A minimum of four credits shall be assigned to one or more courses on Research Methodology which cover areas such as quantitative methods, computer applications, research ethics and review of published research in the relevant field, training, field work, etc. Other courses shall be advanced level courses preparing the students for Ph. D. degree.

3- All courses prescribed for Ph. D. course shall be in conformity with the hour instructional requirement and shall specify content, instructional and assessment methods. They shell be duly approved by the authorized academic bodies.

4- The School where the scholar pursues his/her research shall prescribe the course(s) to him/her based on the recommendations of the Research Advisory Committee, as stipulated under sub-clause 8 below, of the research scholar.

5- All Candidates admitted to the Ph. D. programmes shall be required to complete the course work prescribed by the School during the initial one or two semesters.

6- Candidates already holding M. Phil. Degree and admitted to the Ph. D. Programme or those who have already completed the course work in M. Phil. and been permitted to proceed to the Ph. D. and they may be exempted by the School from the Ph. D. course work. All other candidates admitted to the Ph. D. Programme shall be required to complete the Ph. D. course work prescribed by the School.

7- Grades in the course work including research methodology courses are finalized after a combined assessment by the Research Advisory Committee or Subject committee and the School and the final grades shall be communicated to the University.

8- A Ph. D. Scholar has to obtain a minimum of 55% of marks or its equivalent grade in the UGC 7-Point scale (Or an equivalent grade/CGPA in a point scale wherever grading system is followed) in the course work in order to be eligible to continue in the programme and submit the Ph. D. thesis.

9- The Course work shall be prescribed by the School Board Concerned for Ph. D.

10- In each theory paper of Ph. D. course work 30% of the total marks shall be assigned for the sessional assessment while rest 70% marks will be assigned through written Examination.

11- All Ph. D. scholars, irrespective of discipline, shall be required to train in teaching/education/pedagogy/writing related to their chosen Ph. D. subject during their doctoral period. Ph. D. scholars may also be assigned 4-6 hours counseling sessions/research assistantship for conducting tutorial or laboratory work or field work and evaluation.

Final Ph. D. Synopsis

The Three copies of synopsis duly forwarded by the proposed supervisor and co-supervisor (if any) have to be submitted between 3 to 6 months from the date of Research Degree Committee (RDC). Each page of the synopsis must be signed by the candidate and the supervisor both. The synopsis must include (i) the title of the problem, the need of study, research questions/hypotheses, the review of the related literature, the methodology, data sources, expected outcomes, the significance of the study, the chapter plan and the bibliography.

Duration of the Programme

1- Ph. D. Programme shall be for a minimum duration of three (3) years, including course work, and a maximum duration of six (6) year from the date of Registration to the Ph. D. Programme.

2- A maximum of an additional two (2) years may be allowed for Ph. D. in the maximum duration. However, that the total period for completion of a Ph. D. Programme should not exceed eight (8) years from the date of registration in the Ph. D. programme.

3- Provided further that, female Ph. D. scholars and Persons with Disabilities (Having more than 40% disability) may be allowed an additional relaxation of two (2) Years; however, the total period for completion of a Ph. D. Programme in such cases should not exceed ten (10) years from the date of admission in the Ph. D. programme.

4- Female Ph. D. Scholars may be provided Maternity Leave/Child Care Leave for up to 240 days in the entire duration of the Ph. D. Programme.

5- Commencing from the date of registration a student shall submit progress reports periodically (once in six months) in the prescribed format to the supervisor(s), who shall forward them along with his/her remarks about and assessment of the work done so far to the Research Advisory Committee.

6- There shall be a **Research Advisory Committee**, for each Ph. D. scholar. The Research Supervisor of the scholar shall be the Convener of this committee which shall consist of two senior most teachers of the subject. However if there is no subject teacher, the other member(s) will be nominated by the Vice-Chancellor from allied/concerned area of subject within the University or from outside. This committee shall have the responsibilities- (a) to review the research proposal and finalize the topic of research, (b) to guide the research scholar to develop the study design and methodology of research and identify the course(s) that he/she may have to do and (c) to periodically review and assist in the progress of the research work of the research scholar.

7- A research scholar shall appear before the Research Advisory Committee once in six Months to make a presentation of the progress of his/her work for evaluation and further guidance. The six monthly progress reports shall be submitted by the Research Advisory Committee to the Research and Development Cell with a copy to the Research Scholar.

8- In case the progress of the research scholar is unsatisfactory; the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement this corrective measure, the Research Advisory Committee may recommend to the Research Degree Committee with specific reasons for cancellation of the registration of the research scholar.

Evaluation, Submission of Ph. D. Thesis and Award of Degree

Submission of Ph. D. Thesis

1- On the approval of the research topic, a student shall be required to pursue his research work under the guidance of his/her supervisor(s) at the end of which he/she shall be required to write a Ph. D. thesis as the case may be in accordance with the format and the guidelines prescribed by the School Board concerned.

2- Prior to the submission of the thesis, the student shall make a pre-Ph. D. presentation in the department/school before the RDC, which must be attended by the research supervisor concerned and shall also be open to all faculty members and research scholars.

3- The feedback and comments obtained from them may be suitably incorporated in to the draft of the Ph. D. thesis in consultation with the Research Degree Committee.

4- While submitting the Ph. D. thesis for evaluation, the Ph. D. thesis shall have an undertaking from the research scholar and a certificate from the research Supervisor attesting to the Attendance, originality of the work, vouching that there is no plagiarism with a plagiarism

checking certificate and that the work has not been submitted for the award of any other degree/diploma of the same University where the work was carried out or to any other Institution /University as per Academic Integrity and Plagiarism Regulations-2018.

5- The Ph. D. thesis must be a piece of original research work characterized either by the discovery of new facts or invention of new ideas or a new interpretation of theories among others.

Evaluation and Assessment

1- The School Board concerned shall prescribe an evaluation scheme for the course work to be done by the students. Depending on the nature of the course and the specific needs. The evaluation methodologies may include: (i) Evaluation system or a comprehensive examination as applicable to the prescribed credit-based courses, (ii) Term paper on a theme or presentation of an assignment at a seminar, (iii) Oral examination or any combination of these methods.

2- A Student shall be deemed to have completed his/her course work successfully if he/she qualifies **point 8 of Course work**. The course work successfully **completion** certificate may be issued as Post Graduate Diploma in Research (PGDR).

3- The Ph. D. thesis submitted by a research scholar shall be evaluated by at least three external examiners, who are not in employment of the University, of whom one examiner may be from outside the Uttar Pradesh/ country. The Viva Voice examination, based among other things, on the critiques given in the evaluation report, shall be conducted by the Research Supervisor and at least one external examiner, and shall be open to be attended by Members of the Research Advisory Committee, all faculty members of the Department, other research scholars and other interested experts/ researchers.

4- The public viva-voice of the research scholar to defend the Ph. D. thesis shall be conducted only if the evaluation report(s) of the external examiner(s) on the Ph. D. thesis is/are satisfactory and include a specific recommendation for conducting the viva- voice examination. The viva- voice examination may be conducted through off- line or on-line mode. If the evaluation reports of the external examiners, one of the evaluation reports of the external examiner is unsatisfactory and does not recommend viva-voice, the University shall send the Ph. D. thesis to another external examiner out of the approved panel of examiners and the viva-voice examination shall be held only if the report of the latest examiner is satisfactory, if the report of the latest examiner is also unsatisfactory, the Ph. D. thesis shall be referred to RDC for further decision. If the evaluation reports of more than one external examiner's is unsatisfactory and does not recommend viva-voice, the Ph. D. thesis shall be rejected and the research scholar shall be declared ineligible for the award of the degree.

5- The entire process of evaluation of Ph. D. thesis shall be completed within a period of six months from the date of submission of the Ph. D. Thesis.

Award of Ph. D. Degree

1- A scholar shall be awarded the Ph. D. Degree, with the approval of the Academic Council.

2- Prior to the actual award of the Ph. D. degree, a provisional certificate may be issued to the effect that the Ph. D. is being awarded in accordance with the provisions of UGC Regulations-2022.

Change of Topic/Title of the Thesis

Change in the Topic/Title of the Thesis will be approved in the following manner:

1- Change in the Topic/ Title in nature of grammatical corrections/syntax will be approved by the Director, Research Unit on the proposal of the concerned supervisor through the Director of the School Concerned and recommended by the RDC.

2- On the request of the candidate for Minor change in the Topic of the thesis, the matter will be considered by the DRC and on the recommendations of the DRC and the School Board the change will be approved by the Vice Chancellor. However, the minor change in the title of Ph. D. thesis can be effected within two years of provisional registration for Ph. D.

3- A request for a major change of topic may be considered within one year from the date of approval of the original topic. Such request for a major change in the topic will be considered and recommended by the DRC, concerned School Board and finally will be approved by the RDC. Such a student will be required to pay the additional Fee of one year duration.

Depository with INFLIBNET

1. Following the successful completion of the evaluation process and before the announcement of the award of Ph. D. degrees, the University shall submit an electronic copy of the Ph. D. thesis to the INFLIBNET, for hosting the same so as to make it accessible to all the Higher Educational Institutions and research institutions.

2. In case of any ambiguity the Vice-Chancellor will take a decision in the light of UGC (Minimum Standards and Procedure for Awards of Ph. D. degree) Regulations-2022, which shall be final.

Fees

1. The aspirants or admitted candidates to Ph. D. programme of the university shall pay the prescribed fees;

The fee schedule for Doctor of Philosophy (Ph.D.) Programme

SN	Details of Fee	Proposed Fee	Specifications
(1)	Application Processing fee for **(Entrance Test Exempted Candidates)**	Rs. 1000.00	(Not Refundable)
		Rs. 500.00	For SC/ST Applicants (Not Refundable)
(2)	Application Processing fee with late payment for **(Entrance Test Exempted Candidates)**	Rs. 1500.00	(Not Refundable)
		Rs. 750.00	For SC/ST Applicants (Not Refundable)
(3)	Application Processing fee for **(Entrance Test Appearing Candidates)**	Rs. 2000.00	(Not Refundable)
		Rs. 1000.00	For SC/ST Applicants

			(Not Refundable)
(4)	Application Processing fee with late payment for **(Entrance Test Appearing Candidates)**	Rs. 2500.00	(Not Refundable)
		Rs. 1500.00	For SC/ST Applicants (Not Refundable)
(5)	Ph.D. Programme Registration fee	Rs. 3000.00	Once (Not Refundable)
(6)	Ph.D. Programme fee	Rs. 20,000.00	Per Annum (Refundable)*
(7)	Late payment for Ph.D. Programme fee	10% of Programme fee	Per Annum (Not Refundable)
(8)	Admission with Exam fee for Pre-Ph.D. Course Work	Rs. 10,000.00	Once (Refundable)*
(9)	Pre-Ph.D. Course Work Back Paper fee, **if required**	Rs. 2000.00	Per Paper (Not Refundable)
(10)	Pre-Submission Viva fee for **final submission of Ph. D. Thesis**	Rs. 10,000.00	At the time of request for Pre-Submission Viva (Not Refundable)
(11)	Re-Pre Submission Viva fee for **final submission of Ph. D. Thesis**	Rs. 3000.00	For each Re-Pre Submission Viva (Not Refundable)
(12)	Evaluation of Thesis and viva voce fee	Rs. 15,000.00	At the time of Submission of Thesis Once (Not Refundable)

Or As determined by the Academic Council from time to time. The fees shall be payable on such dates and such mode as may be notified from time to time.

POLICY FOR Ph.D. PROGRAMME FEE REFUND *

Category	% of Refund of Fees*	Point of time when notice of Withdrawal of admission/registration is received in the University
(1)	100%	15 days or more **before** the formally notified last date of admission/registration
(2)	90%	Less than 15 days **before** the formally notified last date of admission/registration
(3)	80%	15 days or less **after** the formally notified last date of admission/registration
(4)	50%	30 days or less, but more than 15 days **after formally** notified last date of admission/registration
(5)	00%	More than 30 days **after** formally notified last date of admission/registration

List of Proposed U.G. & P.G. Programme for Session 2026-27

Name of Programme	Duration (In Years)	Entry Qualification
BACHELOR OF ARTS- B. A. (COMBINATION OF 3 SUBJECTS) (HINDI, ENGLISH, POLITICAL SCIENCE, HISTORY, ECONOMICS, PUBLIC ADMINISTRATION, SOCIOLOGY, SANSKRIT, PHILOSOPHY, URDU, EDUCATION, MATHEMATICS, STATISTICS, GEOGRAPHY, ANCIENT HISTORY & ARCHAEOLOGY, FASHION DESIGN, TAXTILE DESING)	3	10+2
BACHELOR OF SCIENCE- B. Sc. (COMBINATION OF 3 SUBJECTS) (PHYSICS, CHEMISTRY, BOTANY, ZOOLOGY, MATHEMATICS, STATISTICS, COMPUTER SCIENCE, ENVIRONMENTAL SCIENCE)	3	10+2
BACHELOR OF COMMERCE- B. Com.	3	10+2
BACHELOR OF BUSINESS ADMINISTRATION (BBA)	3	10+2
BACHELOR OF COMPUTER APPLICATIONS (BCA)	3	10+2
BACHELOR OF EDUCATION - SPECIAL EDUCATION (B. Ed. SE)	2.5	Bachelor's
BACHELOR OF EDUCATION (B. Ed.)	2	Bachelor's
BACHELOR OF LIBRARY AND INFORMATION SCIENCE (BLIS)	1	Bachelor's
MASTER OF COMMERCE (M. COM.)	2	Bachelor's
MASTERS OF ARTS (M. A. HINDI)	2	Bachelor's
MASTERS OF ARTS (M. A. ENGLISH)	2	Bachelor's
MASTERS OF ARTS (M. A. SANSKRIT)	2	Bachelor's
MASTERS OF ARTS (M. A. URDU)	2	Bachelor's
MASTERS OF ARTS (M. A. ECONOMICS)	2	Bachelor's
MASTERS OF ARTS (M. A. HISTORY)	2	Bachelor's
MASTERS OF ARTS (M. A. SOCIOLOGY)	2	Bachelor's
MASTERS OF ARTS (M. A. POLITICAL SCIENCE)	2	Bachelor's

MASTERS OF ARTS (M. A. EDUCATION)	2	Bachelor's
MASTER OF ARTS (STATISTICS)	3	Bachelor's
MASTERS OF ARTS (M. A. PHILOSOPHY)	2	Bachelor's
MASTER OF ARTS (M. A. HOME SCIENCE)	2	Bachelor's
MASTER OF SOCIAL WORK (MSW)	2	Bachelor's
MASTERS OF ARTS (M. A. GEOGRAPHY)	2	Bachelor's
MASTER OF BUSINESS ADMINISTRATION (MBA)	2	Bachelor's
MASTERS OF ARTS (M. A. ANCIENT HISTORY & ARCHAEOLOGY)	2	Bachelor's
MASTER OF ARTS (YOGA)	2	Bachelor's
MASTER OF COMPUTER APPLICATIONS (MCA)	2	Bachelor's
MASTER OF SCIENCE (M. Sc. COMPUTER SCIENCE)	2	Bachelor's
MASTER OF JOURNALISM & MASS COMUNICATION (MJ)	2	Bachelor's
MASTER OF LIBRARY SCIENCES (MLIS)	1	Bachelor's
MASTER OF ENVIRONMENTAL SCIENCE (M. Sc. Evn.)	2	Bachelor's
MASTER OF SCIENCE (M. Sc. MATHEMATICS)	2	Bachelor's
MASTERS OF ARTS (PUBLIC ADMINISTRATION)	2	Bachelor's
MASTER OF SCIENCE (M. Sc. ZOOLOGY)	2	Bachelor's
MASTER OF SCIENCE (M. Sc. BOTANY)	2	Bachelor's
MASTER OF SCIENCE (M. Sc. STATISTICS)	2	Bachelor's
MASTER OF ARTS (M. A. MATHEMATICS)	2	Bachelor's

उ0प्र0 राजर्षि टण्डन मुक्त विश्वविद्यालय

Ph.D. प्रवेश समितिः 2026-27

(1) प्रो0 पी0 के0 पाण्डेय निदेशक, शोध विकास प्रकोष्ठ एवं आचार्य शिक्षा विद्याशखा उ0 प्र0 राजर्षि टण्डन मुक्त विश्वविद्यालय, प्रयागराज	**समन्वयक**	07525048011
(2) प्रो0 जे0 पी0 यादव आचार्य, जन्तु विज्ञान उ0 प्र0 राजर्षि टण्डन मुक्त विश्वविद्यालय, प्रयागराज	**सदस्य**	07275054263
(3) प्रो0 जी0के0 द्विवेदी परीक्षा नियन्त्रक एवं आचार्य, शिक्षा विद्याशाखा उ0प्र0 राजर्षि टण्डन मुक्त, विश्वविद्यालय, प्रयागराज	**सदस्य**	07525048012
(4) डॉ0 सुनील कुमार सहायक आचार्य, प्राचीन इतिहास समाज विज्ञान विद्याशाखा उ0 प्र0 राजर्षि टण्डन मुक्त विश्वविद्यालय, प्रयागराज	**सदस्य**	07525048148

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समाज का विकास
और समावेशी भारत
का निर्माण ”

गुणवत्तापूर्ण
उच्च शिक्षा

अनुसंधान
के नये आयाम

समावेशी एवं
लचीली शिक्षा

ज्ञान से
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