



## Lecturer Government Ashram Paddhati Inter College, Examination-2021

Date of Commencement of On-line Application : 18.06.2021

Last Date for Receipt of Examination Fee On-line in the Bank : 15.07.2021

Last Date for On-line Submission of Application : 19.07.2021

### Important

(i) If at any stage it is found that the candidate has concealed or misrepresented any desired/required information, his candidature may be cancelled and other appropriate action like debarment may be initiated against him.

(ii) "The candidates are directed to ensure the preservation of information regarding all the stages (i.e. Registration, Fee payment, Final submission etc.) in Soft/Hard Copy for future references at the time of online application."

**"SPECIAL NOTICE :-** (a) On-Line Applications will be accepted only when prescribed fee is deposited in the Bank upto prescribed last date for fee deposit. If the fee is deposited in Bank after the last date prescribed for fee deposit, the on-line application of the candidate will not be accepted and the fee deposited in the Bank will not be refunded in any condition. It will be responsibility of the candidates to deposit fee in the Bank upto the last date prescribed for fee deposit and to 'submit' the application upto the last date prescribed for submission of applications. It is also informed that any amount deposited in the form of examination fee shall not be refunded in any condition.

(b) In Online Application System, the candidates have to provide their Mobile No. and valid e-mail ID in prescribed column failing which their Basic Registration shall not be completed. All relevant informations/instructions shall be sent through SMS on that mobile and e-mail on their valid e-mail ID.

### NECESSARY INFORMATION TO APPLICANTS FOR FILLING THEIR APPLICATIONS THROUGH ON-LINE

This advertisement is also available on the Commission's website <http://uppsc.up.nic.in>. The online application system is applicable for applying against this advertisement. Applications sent by any other mode shall not be entertained hence candidates are advised to apply On-line only. In connection with On-line application, candidates are advised to go through the instructions thoroughly given as under and apply accordingly.

1. When the candidate clicks "**ALL NOTIFICATIONS/ADVERTISEMENTS**" on the Commission's website <http://uppsc.up.nic.in> the On-line advertisement shall be automatically displayed, wherein there shall be 3 parts as given below :

1. User instructions
2. View Advertisement
3. Apply

A list of all the advertisements will be displayed in which "On-line System" is applicable. The Instructions for filling "**On-line form**" have been given in User Instruction. The Candidates desirous to see the advertisement will have to click before 'View Advertisement' to which they are desirous to see, full advertisement will be displayed along with sample snapshots of ON-LINE Application Procedure. Click on "**Apply**" for On-line Application.

**On-line application will be completed in three stages :**

**First Stage:** On clicking "Apply", Candidate Registration will be displayed. Basic Registration form will be displayed on clicking the 'Candidate Registration' respective to Examination. After filling the Basic Registration form, the candidates must check all the informations filled by them. If any correction/modification is required, click on "Edit" button and ensure the required corrections/ modifications. After being fully satisfied with all the informations filled, click on 'Submit button'. Consequently, the registration of first stage shall be over. Thereafter 'Print Registration Slip' shall be displayed and Print of Registration Slip must be taken by clicking on Print Registration Slip.

**Second Stage:** After the completion of the procedure of first stage. 'Fee to be deposited [in INR]' shall be displayed with caption "Click here to proceed for payment". After clicking the above caption of "Click here to proceed for payment", home page of State Bank MOPS (Multi Option Payment System) shall be displayed comprising of 03 modes of payment viz. (i) NET BANKING (ii) CARD PAYMENTS and (iii) OTHER PAYMENT MODES. After depositing the required fee by any one of the above prescribed modes, "Payment Acknowledgement Receipt (PAR)" shall be displayed along with detail of fee deposition, the print of which must be taken by clicking on "Print Payment Receipt."

**Third stage :** On completion of the procedure of second stage, click on "Proceed for final submission of application form as a result of which 'format' shall be displayed. The candidates are required to enter all the required informations in the format. The photo and signature, duly scanned shall be uploaded also. The candidate should scan his/her photograph and signature in the prescribed size (the size will be mentioned at the specified space in the On-line application). This should also be kept in notice that the photo must be latest passport size. In case the photo and signature, scanned in the prescribed size, are not uploaded, then the On-line system will not accept it. The procedure related for scanning of the photo and signature is laid down in the **Appendix-1**. After filling in all entries in the format, the candidates may click "PREVIEW" to see for themselves that all entries and informations are correctly entered and after satisfying themselves should click "**Submit**" button to forward the same to the Commission. It is essential that the candidate should fill all informations On-line correctly according to the instructions given and click the "**Submit**" button by the last date prescribed for submission of the application form. If the candidate does not click the "**Submit**" button, the ON-LINE application process shall not be completed finally and the candidate shall be accountable for this. After clicking the '**Submit**' button, the candidate may take a print of the application to preserve it with them. In the event of any discrepancy, the candidate will be required to submit the said print in the office of the Commission, otherwise his/her request shall not be entertained.

However it is clarified to the candidates that at the stage of preliminary examination the hard copy of the documents including their on-line application should not be sent to the commission.

**2. Application Fee :** In the ON-LINE Application process, after completing the procedure of first stage, Category wise prescribed examination fee is to be deposited as per Instructions provided in second stage. The prescribed fee of preliminary examination for

different categories is as under:-

- (i) Unreserved/Economically - weaker Sections/Other Backward Class - Exam fee ₹ 100/- + On-line processing fee ₹ 25/- Total = ₹ 125/-
- (ii) Scheduled Caste/ Scheduled Tribe - Exam fee ₹ 40/- + On-line processing fee ₹ 25/- Total = ₹ 65/-
- (iii) Handicapped - Exam fee NIL + On-line processing fee ₹ 25/- Total = ₹ 25/-
- (iv) Ex-Service Man - Exam fee ₹ 40/- + On-line processing fee ₹ 25/- Total = ₹ 65/-
- (v) Dependents of the Freedom Fighters/Women - According to their original category

3. The Basic Registration of such candidates will not be accepted who have been debarred from U.P. Public Service Commission and their period of debarment has not been completed. In addition to above, the applications submitted without requisite informations regarding debarment, if it is found at any stage in future that the application have been submitted concealing this fact, his/her candidature will be rejected at any stage and the commission will consider to debar them from all future examinations/selections including extension of debarment period. In this regard, if the claims of the candidates made in their On-line applications are not found true, they can be debarred not only from the examination in question but from all the future examinations and selections made by the commission also including other appropriate penalties.

**4. Modify Submitted Application:** If a candidate comes to know about any error/errors in the submitted application form except in name of the Examination and type of recruitment, Registered Mobile Number, E-mail ID, Aadhaar Number and such cases where prescribed fee for modified category is higher (In case of error in these entries, candidate may submit new online application with prescribed fee only as previously deposited fee will neither be adjusted nor refunded) he/she will be given only one opportunity to modify it/them according to the following procedure before the last date of the submission of application form. "Candidate has to click on 'Modify Submitted Application' under 'Online application process' in Candidate Segment. After that 'Candidate Personal Details' will be displayed on the screen to fill in Registration No., Date of Birth, Gender, Domicile and Category. After filling the Verification code the candidate has to click on the 'proceed' button following which for Authentication of the candidate OTP (One Time Password) will be sent on the registered mobile No. of the candidate and the 'Option Box' will be displayed on the screen to fill in the OTP. After the candidate has filled in the OTP and clicks on the 'proceed' button his/her previously submitted on line application form will be displayed on the screen. The candidate can submit his/her on line application form after making required modifications in it. This facility will be available to the candidates only one time within the last date of submission of application form".

5. The U.P. Public Service Commission shall hold a Preliminary Examination at various Centres of Districts mentioned in **Appendix-2** of this advertisement for selecting suitable candidates for admission to the Lecturer Government Ashram Paddhati Inter College Main (Written) Examination 2021. The selection will be made on the basis of total marks obtained by the candidates in written examination. The date and centre of examination decided by the Commission will be intimated to the candidates by means of their e-Admission certificate. The No. of Districts/Centres may be increased or decreased according to the decision of the Commission on the basis of final No. of applications received.

**6. No. of Vacancies:- Presently, the number of Vacancies is 124. Subject wise/ Reservation wise Vacancies details are given as below-**

S. N.	Name of Subject	Number of vacancies	Unreserve	E.W.S	O.B.C	S.C	S.T
1.	Physics	30	12	03	09	06	--
2.	Chemistry	26	11	02	06	06	01
3.	Biology	33	13	03	09	07	01
4.	Math	35	14	04	10	07	--
<b>Total-</b>		<b>124</b>	<b>50</b>	<b>12</b>	<b>34</b>	<b>26</b>	<b>02</b>

**Subjectwise Horizontal Reservation will be given as per rules.**

**Pay Scale :** 9300-34800 Grade pay 4800 level-8.

**Note-** The number of vacancies may increase or decrease depending upon the circumstances/requirements.

**7. Reservation :** The reservation for Scheduled Castes of U.P./Scheduled Tribes of U.P./ Other Backward Classes of U.P./Economically Weaker Sections candidates of U.P. shall be admissible in accordance with the provisions of relevant Govt. Rules. Accordingly, horizontal reservation for different categories as Dependents of Freedom Fighters of U.P., Ex-serviceman of U.P., P.H. of U.P. and Women candidates shall be admissible as per rules.

**Note :** (1) शासनादेश संख्या-39 रिट/का-2/2019 दिनांक-26 जून, 2019 द्वारा शासनादेश संख्या-18/1/99/का-2/2006 दिनांक-09 जनवरी, 2007 के प्रस्तर-4 में दिये गये प्रावधान, "यह भी स्पष्ट किया जाता है कि राज्याधीन लोक सेवाओं और पदों पर सीधी भर्ती के प्रक्रम पर महिलाओं को अनुमत्य उपरोक्त आरक्षण केवल उत्तर प्रदेश की मूल निवासी महिलाओं को ही अनुमत्य है" को रिट याचिका संख्या-11039/2018 विपिन कुमार मौर्या व अन्य बनाम उत्तर प्रदेश राज्य व अन्य तथा सम्बद्ध 6 अन्य रिट याचिकाओं में मा. उच्च न्यायालय, इलाहाबाद द्वारा दिनांक-16-01-2019 को अधिकारतीत (ULTRA VIRES) घोषित करने सम्बन्धी निर्णय के अनुपालन में शासनादेश दिनांक-09-01-2007 से प्रस्तर-04 को विलोपित किए जाने का निर्णय लिया गया है। उक्त निर्णय शासन द्वारा मा. उच्च न्यायालय के आदेश दिनांक-16.01.2019 के विरुद्ध दायर विशेष अपील (डी) संख्या-475/2019 में मा. उच्च न्यायालय द्वारा पारित होने वाले अन्तिम निर्णय के अधीन होगा। (2) The Candidates claiming the benefit of reservation/age relaxation must obtain, in support of their category a certificate issued by competent authority on the proforma available in **Appendix-3** of the Website of this detailed advertisement and shall submit the same to the Commission when asked for. (3) All Reserved category candidates of U.P. must mention their Category/Sub Category in the Application. (4) Candidates claiming reservation/Age relaxation in more than one category will be entitled to only one concession whichever is more beneficial to them. (5) The Scheduled Caste, Scheduled Tribes, Other Backward Class, Economically Weaker Sections, Dependents of Freedom Fighter, Ex-service Man and PH candidates who are not the permanent residents of U.P. shall not be given the benefit of reservation/Age relaxation. (6) In case of women candidates the caste certificate issued from father side only will be treated valid. (7) It is mandatory for the candidates to enclose self-attested copies of all the certificates

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along with the application forms of Main Examination in support of the claims made by them in their application forms of Preliminary Examination regarding eligibility and category/sub category, failing with their claim shall not be entertained.

**8. Conditions of Eligibility (For age relaxation only) : (I) Eligibility in case of Emergency Commissioned/Short Service Commissioned Officers:** In accordance with the provision of the G.O. No. 22/10/1976-Karmik-2-85, dated 30-1-1985 Emergency Commissioned/Short Service Commissioned Officers who have not been released from Army but whose period of Army service has been extended for rehabilitation may also apply for this examination on the following conditions: (A) Such applicants will have to obtain a certificate of the competent authority of Army, Navy, Air Force to the effect that their period of Service has been extended for rehabilitation and no disciplinary action is pending against them. (B) Such applicants will have to submit in due course a written undertaking that in case they are selected for the post applied for, they will get themselves released immediately from the Army Service. The above facilities will not be admissible to Emergency/Short Service Commissioned Officers, if (a) he gets permanent Commission in the Army, (b) he has been released from the Army on tendering resignation, (c) he has been released from the Army on grounds of misconduct or physical disability or on his own request and who gets gratuity.

**9. MARITAL STATUS :** Male candidates who are married and have more than one wife living and female candidates who have married a person already having a wife, shall not be eligible unless the Hon'ble Governor has granted exemption from this condition.

**10. EDUCATIONAL QUALIFICATION :**

The candidates must possess Post graduate degree in respective subject from any recognized university or equivalent qualification upto the last date for receipt of On-Line application. This should be mentioned by the candidates in the relevant column of their On-Line application form. Educational Qualifications for the different subjectwise posts as specified in the relevant service Rule are as follows:-

Sl. No.	Name of Post	Educational Qualification (Essential)
1	2	3
1.	प्रवक्ता- भौतिक शास्त्र, रसायन शास्त्र, गणित	भारत में विधि द्वारा स्थापित किसी विश्वविद्यालय से सम्बन्धित विषय में स्नातकोत्तर उपाधि या सरकार द्वारा इसके समकक्ष मान्यता प्राप्त कोई अर्हता।
2.	प्रवक्ता, जीव विज्ञान	भारत में विधि द्वारा स्थापित किसी विश्वविद्यालय से वनस्पति विज्ञान या जन्तु विज्ञान में स्नातकोत्तर उपाधि या सरकार द्वारा इसके समकक्ष मान्यता प्राप्त कोई अर्हता

**Preferential Qualifications-** (एक) राजकीय प्रशिक्षण विद्यालय या सरकार द्वारा मान्यता प्राप्त किसी प्रशिक्षण विद्यालय से एल0टी0 डिप्लोमा या बी0टी0,

या

भारत में विधि द्वारा स्थापित किसी विश्वविद्यालय से शिक्षा शास्त्र (बी0एड0 उपाधि) में स्नातक उपाधि (दो) सरकार द्वारा मान्यता प्राप्त किसी शैक्षिक संस्था में कक्षा छह से कक्षा दस तक के शिक्षण का पाँच वर्ष का अनुभव।

(3) प्रादेशिक सेना में कम से कम दो वर्ष की अवधि तक सेवा की हो, या

(4) राष्ट्रीय कैडेट कोर का 'बी' प्रमाण पत्र प्राप्त किया हो।

**Note: (i) For the post of Lecturer, Government Aashram Paddhati Inter College, both Male and female candidates are eligible.**

(ii) The candidate applying for more than one subject, shall be treated eligible only for the post of the subject in which they appear in the examination.

**11. (i) AGE LIMIT :** Candidates must have attained the age of 21 years and must not have crossed the age of 40 years on July 1, 2021 i.e. they must have not been born earlier than 2nd July, 1981 and not later than July 1, 2000. For PH candidates, the maximum age limit is 55 years i.e. they must have not been born before 02 July, 1966. **(ii) Relaxation in Upper Age Limit:** (a) Upper age limit shall be greater by five years for candidates belonging to Scheduled Castes of U.P., Scheduled Tribes of U.P., Other Backward Classes of U.P., Skilled players of U.P. of Classified Games, State Govt. Employees of U.P. including Teachers/Staff of the Basic Shiksha Parishad of U.P. and Teachers/Staff of the Government Aided Madhyamik Vidyalayas of U.P. i.e. they must have not been born before 2nd July, 1976. (b) Upper age limit shall be greater by fifteen years for physically handicapped persons of U.P. (c) For the Group 'C' posts, the Age relaxation and reservation for the emergency Commissioned Officers/short Service. Commissioned Officers/Ex-Army shall be given according to Rule.

**12. SOME INFORMATION ABOUT LECTURER GOVERNMENT AASHRAM PADDHATI INTER COLLEGE MAIN (WRITTEN) EXAMINATION:** (i) Only such candidates will be admitted to the Main (written) examination who are declared successful in Preliminary Examination for which the successful candidates will have to fill up another application form according to instructions of the Commission and for this application, the examination fee for Unreserved (General), Economically weaker sections, Other Backward Classes and for Candidates of Other States is Rs. 200/- and Rs. 25/- as on-line processing fee = Rs. 225/- and for Scheduled Caste and Scheduled Tribe candidates of U.P. the fee is Rs. 80/- and Rs. 25/- as on-line processing fee = Rs. 105/-. The candidates of Physically Handicapped category of U.P. are exempted from fee but they have to pay Rs. 25/- only as on-line processing fee, Candidates of Ex-Army Personnels of U.P. Exam Fees is Rs. 80/- and Rs. 25/- as on-line processing fees = Rs. 105/- only but the candidates of D.F.F. of U.P. and women candidates shall have to deposit their fees according to their original category. (ii) Candidates should carefully note that they will have to appear in the main examination against the same Roll No. allotted for the Preliminary Examination. (iii) The dates and venue for the Main examination shall be informed by the Commission later on through e-Admit Cards. (iv) Candidates serving under the Central or State Government will have to produce 'No Objection Certificate' from their employer issued by the competent authority.

**NOTE:** The candidates must enclose self attested copies of all certificates in support of their claims rendered in the application form for main examination of the Lecturer Government Aashram Paddhati Inter College Examination. If they do not enclose self attested copies of all certificates in support of their claims, their candidature shall be cancelled.

**13. IMPORTANT INSTRUCTIONS FOR CANDIDATES:** (1) As per decision of the UPPSC a candidate will be liable to be debarred from this examination and all other future examinations and selections upto a maximum period of five years for furnishing any wrong information in his/her application form which cannot be substantiated by relevant documents or for any other malpractice. (2) The claim of category, subcategory, domicile, gender, date of birth, name and address will be valid only till the last date of online application. In this regard no application for error correction/modification shall be

acceptable. Incomplete application form shall be summarily rejected and no correspondence shall be entertained in this regard. On submission of false/misleading information, the candidature will be cancelled. (3) The date of birth of the candidates shall be admissible as entered in High School Certificate. The candidate will have to attach his/her High School or Equivalent Examination Certificate with the application form of Examination. No Other Certificate shall be acceptable for Date of Birth and if it is not attached with the application form it shall be rejected. (4) The candidates will have to enclose self attested copies of Marksheet, Certificates & Degrees along with the application form of Main examination in support of their claims of Educational Qualifications. If they do not enclose self attested copies of certificates/documents in support of their claims, the application shall be rejected. (5) The benefit of reservation to the categories of Handicapped persons of society shall be given only on the posts which shall be identified by the Government for their Sub category. For this benefit, the Handicapped persons must produce a certificate of being handicapped in that Sub category issued by prescribed Medical Officer/Specialist and counter signed by the Chief Medical Officer according to Rule 3 of U.P. Public Service (Reservation for physically Handicapped, Dependent of Freedom Fighters and Ex-Servicemen (Amendment) Act, 2018. It is worth while mentioning that as per section-3 of the said Act, the new identification of post has not yet been received from the government, however as per identification (Category/ Subcategory) mentioned in requisitions received from the Appointing authorities the selection process will be completed accordingly. (6) The Ex-Army personnels must be discharged from army upto the last date prescribed for receipt of applications. (7) Date, time and venue etc. of examination along with Roll No. will be communicated to the candidates through e-Admit Cards, Candidates will have to appear at the centre/venue allotted to them by the Commission. No change in centre/venue is permissible and no application shall be entertained in this regard. (8) The candidature of such candidates who are subsequently found ineligible according to the terms laid down in advertisement will be cancelled and their any claim for the Examination will not be entertained. The decision of the Commission regarding eligibility of the candidates shall be final. (9) The Application/candidature will be rejected/ cancelled if the application is not submitted on prescribed form, date of birth is not mentioned or wrong date of birth is mentioned, overage, under age, not fulfilling the minimum educational qualifications, application received after last date and no signature under declaration in the format. (10) The Commission may admit the candidates provisionally after summarily checking of the application but if it is found at any stage that applicant was not eligible or that his/her application should have been rejected or was not entertainable initially, his/her candidature will be rejected and if the candidate is selected, the recommendation of the Commission for appointment shall be withdrawn. (11) The Commission reserves the right of cancelling the candidature of any candidate found indulging in any malpractice i.e. copying in examination hall or indiscipline, misbehaviour or canvassing for his/her candidature. On violation of these instructions, the candidates may be debarred from this examination as well as future examinations. In this regard the decision of the Commission shall be final. (12) In all communications to the Commission, the candidates must mention the name of examination, advertisement No., registration No., date of birth, father's/husband's name and also the Roll Number, if communicated. (13) Candidates selected for appointment will have to undergo Medical Examination as required under the Rules. (14) On the basis of the Result of Preliminary examination thirteen times candidates to the number of vacancies shall be declared successful for the main examination. (15) The candidates who are appearing in the Examination of essential qualification prescribed for the post need not apply, because they are not eligible. (16) While filling the OMR answer sheets, the candidates must use Black Ball Point Pen Only. Use of any other Pen or Pencil is strictly prohibited. (17) Candidates are directed to fill in all the entries correctly in the OMR Answer Sheet. In case of leaving them blank or filling them erroneously the candidate will be wholly responsible for the same & the commission will not evaluate his/her OMR Answer Sheet. The informations filled in the OMR Answer Sheets must not be erased by whitener, blade or rubber etc. (18) Candidates shall be provided OMR answer sheets in duplicates i.e. original copy and candidate's copy. After completion of the examination, the candidates are required to hand over the original copy to the Invigilator and the candidate's copy to keep with them. (19) In the Preliminary Examination for the objective type Question papers, penalty (Negative Marking) shall be imposed for wrong answers given by the candidates which is as below:- (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one third (0.33) of the marks assigned to that question will be deducted as penalty. (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answer happens to be correct and there will be same penalty as above for that question. (iii) If a question is left blank i.e. no answer is given by the candidate, there will be no penalty for that question. (20) The minimum efficiency standard for S.C. & S.T. candidates is fixed 35% i.e. the Candidates of these Categories shall not be placed in the merit/select list if they have secured less than 35% marks in the Preliminary/Main examination. Similarly, the minimum efficiency standard for the candidates of other categories is fixed 40% i.e. such candidates shall not be placed in the merit/select list if they have secured less than 40% marks in the Preliminary/Main examination. All such candidates who have secured less marks than the marks of minimum efficiency standard as fixed by the Commission shall be treated disqualified. (21) **If it is found that a candidate has submitted any forged documents he/she will be debarred from all selections of U.P.P.S.C forever and action under relevant sections of I.P.C will also be taken against him/her.**

**GENERAL INSTRUCTIONS**

1. In no circumstances, applications of any stage shall be accepted after the last prescribed date and time. Applications found without requisite informations and without photograph and signature, even when received in time, may be summarily rejected.
2. In the On-line system the candidates must ensure that all the requisite informations have been duly filled and must click the submit Button by the Last prescribed Date & Time. Candidates must take the print and keep it safely. In any discrepancy candidates will have to produce the said print otherwise no request shall be entertained.
3. Those candidates, willing to take the benefit of the reservation/age relaxation must obtain a certificate, issued by the competent authority, in support of the reserved category, in the prescribed format printed in this detailed advertisement (**Appendix-3**) and submit

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the same to the Commission, whenever required to do so. Those claiming more than one reservation/Age relaxation will be given only one such concession, which will be more beneficial. The candidates who are not originally domicile of U.P. belonging to SC, ST, O.B.C., EWS, dependants of freedom fighters, Ex-Servicemen, skilled players and P.H. are not entitled to benefit of reservation/age relaxation. In case of the women candidates, the caste certificate issued from father side will be treated valid.

4. The Commission do not advise to candidates about their eligibility. Therefore, they should carefully read the advertisement and when satisfied about their eligibility conditions of the advertisement, then only apply. The candidates must possess all the requisite qualifications till the last date for submitting the applications.

5. In the category of dependants of the freedom fighters only sons, daughters, grandsons (Son's son/Daughter's son) and grand daughters (son's daughter/daughter's daughter, married/unmarried) are covered. It is advised that the candidates of the aforesaid category must obtain the reservation certificate from the District Magistrate in terms of Govt. Order No. 453/79-V-1-15-1(Ka)14-2015 dated 07.04.2015 in the prescribed format and submit the same.

6. In the event of involvement of a candidate in the concealment of any important information, pendency of any case/criminal case, conviction, more than a husband or wife being alive, submission of facts in a distorted manner malpractice, canvassing for candidature/selection etc., the Commission reserves the right to reject the candidature and debar him/her from appearing in the examination in question and in all other future examinations and selections.

7. In case the candidates feel any problem in the "On-line Application" they may get their problem resolved by contacting over phone or on Website clicking 'Contact us'.

8. The procedure relating to upload scanned photo and signature is given in **Appendix-1**. The name of Districts for Examination are available in the advertisement in **Appendix-2** and proformae of caste certificates for different reserved categories are given in **Appendix-3**. In the same way the plan of Examination and the syllabus for Preliminary Examination on **Appendix-4** and plan of examination and the syllabus for main Examination on **Appendix-5**.

**Detailed Application Form:**

At the top of the page, there is a Declaration. The candidates are advised to go through the content of the Declaration carefully. Candidate has the option either to agree or disagree with the content of Declaration by clicking on 'I Agree' or 'I do not agree' buttons. In case the candidate opts to disagree, the application will be dropped, and the procedure will be terminated. Accepting to agree only will submit the candidate's On-line Application.

**Notification Details :**

This section shows information relevant to Notification

**Personal Details**

This section shows information about candidate's personal details i.e. Registration Number, candidate's name, Father/Husband's name, Gender, DOB, UP domicile, Category, Marital status, email ID and contact number.

**Other Details of Candidate**

Other details of candidate shows the information details about UP Freedom Fighter, Ex Army service duration and your physical deformity.

**Education & Experience Details**

Its shows your educational and experience details.

**Candidate address, photo & signature details**

Here you will see your complete communication address and photo with your signature.

**Declaration segment**

At the bottom of the page there is a 'Declaration' for the candidates. Candidates are advised to go through the content of the Declaration carefully.

After filling all above particulars there is provision for preview your detail before final submission of application form on clicking on "Preview" button.

Preview page will display all facts/particulars that you have mentioned on entry time, if you are sure with filled details then click on "Submit" button to finally push data into server with successfully submission report that you can print.

Otherwise using "Back" button you can modify your details.

**[CANDIDATES ARE ADVISED TO TAKE A PRINT OF THIS PAGE BY CLICKING ON THE "PRINT" OPTION AVAILABLE]**

**For other Information:** For other Information candidates are advised to select desired option in 'Home Page' of Commission's website <http://uppsc.up.nic.in>

**CANDIDATE SEGMENT**

<b>NOTIFICATIONS/ADVTS</b>
<b>All Notifications/Advertisements</b>
<b>ONLINE FORM SUBMISSION</b>
1. Candidate Registration (First Stage)
2. Fee Deposition / Reconciliation (SECOND STAGE)
3. Submit Application Form (Third Stage)
<b>APPLICATION FORM STATUS</b>
Update your transaction ID by Double Verification mode View Application Status
List of Applications Having photo related Objections
Print Duplicate Registration Slip
Print Detailed Application Form
<b>EXAMINATION SEGMENT</b>
Print Address Slip for sending Documents to commission [Only for Direct Recruitment]
<b>DOWNLOAD SEGMENT</b>
Download Admit Card
Download interview letter
Download Syllabus
Know your Registration No.
Click here to view Key Answer Sheet

**Regarding Application :**

1. On clicking "View Application status" option in Candidate Segment page you can see current status of candidate.
2. On clicking "Result" option in Candidate Segment page candidate can see result status of periodically.
3. "Interview/Exam Schedule" option in Candidate Segment page candidate can see interview and examination schedule details periodically.
4. On clicking "Key Answer Sheet" candidate can download key answer sheet.

5. On clicking "Admit Card/Hall Ticket" candidate can download their Admit Card using with some basic credential of candidate.

6. On clicking "List of Rejected Candidate" candidate can view Rejected candidate list.

7. On clicking "Syllabus" candidate can view syllabus of particular examination.

[Candidates applying on-line need NOT send hard copy of the Online Application filled by them on-line or any other document/certificate/testimonial to the Uttar Pradesh Public Service Commission. However they are advised to take printout of the On-line Application and retain it for further communication with the UPPSC.] [The Candidates applying for the examination should ensure that they fulfill all eligibility conditions for admission to examination. Their admission at all the stages of the examination will be purely provisional subject to satisfying the prescribed eligibility conditions.] UPPSC takes up verification of eligibility conditions with reference to original documents at subsequent stages of examination process.

**LAST DATE FOR RECEIPT OF APPLICATIONS :** On-line Application process must be completed (including filling up of Part-I, Part-II and Part-III of the Form) before last date of form submission according to Advertisement, after which the Web-Link will be disabled.

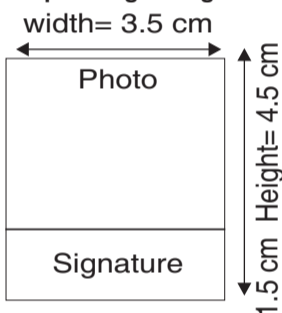
**APPENDIX-1**

The Procedure relating to upload Photo & Signature.

**Guide Lines for Scanning Photograph with Signature**

1. Paste the Photo on any white paper as per the above required dimensions. Sign in the Signature Space provided. Ensure that the signature is within the box.
2. Scan the above required size containing photograph and signature. Please do not scan the complete page.
3. The entire image (of size 3.5 cm by 6.0 cm) consisting of the photo along with the signature is required to be scanned, and stored in \*.jpg, .jpeg, .gif, .tif, .png format on local machine.
4. Ensure that the size of the scanned image is not more than 50 KB.
5. If the size of the file is more than 50 KB, then adjust the settings of the scanner such as the DPI resolution, no. colours etc., during the process of scanning.
6. The applicant has to sign in full in the box provided. Since the signature is proof of identity, it must be genuine and in full; initials are not sufficient. Signature in CAPITAL LETTERS is not permitted.
7. The signature must be signed only by the applicant and not by any other person.
8. The signature will be used to put on the Hall Ticket and wherever necessary. If the Applicant's signature on answer script, at the time of the examination, does not match the signature on the Hall Ticket, the applicant will be disqualified.

**Sample Image & Signature :-**



**APPENDIX-2**

The name of districts where Exam will be held are **Lucknow and Prayagraj**.

The No. of Districts/Centers may be increased or decreased according to the decision of commission on the basis of final No. of applications received.

**APPENDIX-3**

**उ०प्र० की अनुसूचित जाति तथा अनुसूचित जनजाति के लिये जाति प्रमाण-पत्र**

प्रमाणित किया जाता है कि श्री/श्रीमती/कुमारी ..... सुपुत्र/सुपुत्री श्री..... निवासी ग्राम ..... तहसील ..... नगर ..... जिला ..... उत्तर प्रदेश राज्य की ..... जाति के व्यक्ति हैं जिसे सविधान (अनुसूचित जाति) आदेश, 1950 (जैसा कि समय-समय पर संशोधित हुआ) / सविधान (अनुसूचित जनजाति, उत्तर प्रदेश) आदेश, 1967 के अनुसार अनुसूचित जाति/अनुसूचित जनजाति के रूप में मान्यता दी गई है।

श्री/श्रीमती/कुमारी ..... तथा अथवा उनका परिवार उत्तर प्रदेश के ..... ग्राम ..... तहसील ..... नगर ..... जिला ..... में सामान्यतया रहता है।  
 स्थान ..... हस्ताक्षर .....  
 दिनांक ..... पूरा नाम .....  
 मुहर ..... पद नाम .....  
 जिलाधिकारी/अतिरिक्त जिलाधिकारी/सिटी मजिस्ट्रेट/परगना मजिस्ट्रेट/तहसीलदार/ अन्य वेतन भोगी मजिस्ट्रेट यदि कोई हो/जिला समाज कल्याण अधिकारी

**उत्तर प्रदेश के अन्य पिछड़े वर्ग के लिए जाति प्रमाण-पत्र**

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

यह भी प्रमाणित किया जाता है कि श्री/श्रीमती/कुमारी ..... पूर्वोक्त अधिनियम, 1994 (यथासंशोधित) की अनुसूची-दो (जैसा कि उत्तर प्रदेश लोक सेवा) (अनुसूचित जातियों, अनुसूचित जनजातियों और अन्य पिछड़े वर्गों के लिये आरक्षण) (संशोधन) अधिनियम, 2001 द्वारा प्रतिस्थापित किया गया है एवं जो उत्तर प्रदेश लोक सेवा (अनुसूचित जातियों, अनुसूचित जनजातियों और अन्य पिछड़े वर्गों के लिये आरक्षण) (संशोधन) अधिनियम, 2002 द्वारा संशोधित की गयी है, से आच्छादित नहीं है। इनके माता-पिता की निरंतर तीन वर्ष की अवधि के लिये सकल वार्षिक आय आठ लाख रुपये या इससे अधिक नहीं है तथा इनके पास धनकर अधिनियम, 1957 में यथा विहित छूट सीमा से अधिक सम्पत्ति भी नहीं है।

श्री/श्रीमती/कुमारी ..... तथा/अथवा उनका परिवार उत्तर प्रदेश के ..... ग्राम ..... तहसील ..... नगर ..... जिला ..... में सामान्यतया रहता है।  
 स्थान ..... हस्ताक्षर .....  
 दिनांक ..... पूरा नाम .....

continued.



**प्रारूप - 3**

(मान्यता प्राप्त क्रीडा/खेल में अपने विश्वविद्यालय की ओर से अन्तर्विश्वविद्यालय प्रतियोगिता में भाग लेने वाले खिलाड़ी के लिये)

**विश्वविद्यालय का नाम** ..... राज्य स्तर की सेवाओं/पदों पर नियुक्ति के लिए **कुशल खिलाड़ियों के लिए प्रमाण-पत्र**

प्रमाणित किया जाता है कि श्री/श्रीमती/कुमारी ..... आत्मज/पत्नी/आत्मजा श्री ..... निवास (पूरा नाम) ..... विश्वविद्यालय की कक्षा ..... के विद्यार्थी ने दिनांक ..... से दिनांक ..... तक ..... (स्थान का नाम) में आयोजित अन्तर्विश्वविद्यालय ..... (क्रीडा/खेल-कूद का नाम) प्रतियोगिता/टूर्नामेंट में ..... विश्वविद्यालय की ओर से भाग लिया। उनके टीम के द्वारा उक्त प्रतियोगिता/टूर्नामेंट में ..... स्थान प्राप्त किया गया। यह प्रमाण-पत्र डीन ऑफ स्पोर्ट्स अथवा इंचार्ज खेल कूद विश्वविद्यालय में उपलब्ध रिकार्ड के आधार पर दिया गया है।

स्थान ..... हस्ताक्षर .....  
दिनांक ..... नाम .....  
पद .....  
संस्था का नाम .....  
मुहर .....

**नोट** : यह प्रमाण-पत्र विश्वविद्यालय के डीन ऑफ स्पोर्ट्स या इंचार्ज खेल-कूद द्वारा व्यक्तिगत रूप से किये गये हस्ताक्षर होने पर ही मान्य होगा।

**प्रारूप - 4**

(मान्यता प्राप्त क्रीडा/खेल में अपने स्कूल की ओर से राष्ट्रीय खेल-कूद में भाग लेने वाले खिलाड़ी के लिये)

डाइरेक्ट्रेट ऑफ पब्लिक इन्सट्रक्शन्स/निदेशक, शिक्षा, उत्तर प्रदेश ..... राज्य स्तर की सेवाओं/पदों पर नियुक्ति के लिए कुशल खिलाड़ियों के लिए प्रमाण-पत्र

प्रमाणित किया जाता है कि श्री/श्रीमती/कुमारी ..... आत्मज/पत्नी/आत्मजा श्री ..... निवास (पूरा नाम) ..... में ..... स्कूल में कक्षा ..... के विद्यार्थी ने दिनांक ..... से दिनांक ..... तक ..... (स्थान का नाम) में आयोजित स्कूलों के नेशनल गेम्स की ..... (क्रीडा/खेल-कूद का नाम) प्रतियोगिता/टूर्नामेंट में ..... स्कूल की ओर से भाग लिया। उनके टीम के द्वारा उक्त प्रतियोगिता/टूर्नामेंट में ..... स्थान प्राप्त किया गया।

यह प्रमाण-पत्र डाइरेक्ट्रेट ऑफ पब्लिक इन्सट्रक्शन्स/शिक्षा में उपलब्ध रिकार्ड के आधार पर दिया गया है।

स्थान ..... हस्ताक्षर .....  
दिनांक ..... नाम .....  
पद .....  
संस्था का नाम .....  
मुहर .....

**नोट** : यह प्रमाण-पत्र निदेशक/या अतिरिक्त/संयुक्त या उपनिदेशक डाइरेक्ट्रेट ऑफ पब्लिक इन्सट्रक्शन्स/शिक्षा ..... द्वारा व्यक्तिगत रूप से हस्ताक्षर होने पर मान्य होगा।

**Appendix - 4**

**प्रारम्भिक परीक्षा हेतु परीक्षा योजना एवं पाठ्यक्रम**

प्रारम्भिक परीक्षा में सामान्य अध्ययन/वैकल्पिक विषय का एक प्रश्नपत्र होगा जो वस्तुनिष्ठ व बहुविकल्पी प्रकार का होगा। इसमें प्रश्नों की संख्या 120 (वैकल्पिक विषय के 80 प्रश्न तथा सामान्य अध्ययन के 40 प्रश्न) होगा जो कुल 300 अंकों का तथा समय 2 घण्टे का होगा।

**Syllabus**

**General Studies**

- 1- General Science (High School Standard)
- 2- History of India
- 3- Indian National Movement
- 4- Indian Polity, Economy & Culture
- 5- Indian Agriculture, Commerce & Trade
- 6- World Geography & Indian Geography & Natural resources of India
- 7- Current National and International Important events
- 8- Logic & Reasoning based on General Intelligence.
- 9- Specific knowledge regarding Education, Culture, Agriculture, Industry Trade, Living & Social Traditions of Uttar Pradesh.
- 10- Elementary Mathematics up to 8th level:- Arithmetic, Algebra and Geometry.
- 11- Ecology and Environment.

**वैकल्पिक विषय (Optional Subject)**

वैकल्पिक विषयों का पाठ्यक्रम मुख्य परीक्षा की भाँति होगा।

**Appendix - 5**

**मुख्य (लिखित) परीक्षा हेतु परीक्षा योजना एवं पाठ्यक्रम**

- 1- प्रथम प्रश्नपत्र - सामान्य हिन्दी एवं निबन्ध (परम्परागत) समय- 02 घण्टा पूर्णांक - 100 अंक
- 2- द्वितीय प्रश्नपत्र - वैकल्पिक विषय (परम्परागत) समय- 03 घण्टा पूर्णांक - 300 अंक

**Syllabus**

**प्रथम खण्ड सामान्य हिन्दी निर्धारित अंक-50**

1- अपठित गद्यांश का संक्षेपण, उससे सम्बन्धित प्रश्न, रेखांकित अंशों की व्याख्या एवं उसका उपयुक्त शीर्षक।

2- अनेकार्थी शब्द, विलोम शब्द, पर्यायवाची शब्द, तत्सम एवं तद्भव, क्षेत्रीय, विदेशी (शब्द भण्डार), वर्तनी, अर्थबोध, शब्द-रूप, सन्धि, समास, क्रियायें, हिन्दी वर्णमाला, विराम चिन्ह, शब्द रचना, वाक्य रचना, अर्थ, मुहावरे एवं लोकोक्ति, उत्तर प्रदेश की मुख्य बोलियाँ तथा हिन्दी भाषा के प्रयोग में होने वाली अशुद्धियाँ।

**द्वितीय खण्ड हिन्दी निबन्ध निर्धारित अंक-50**

इसके अन्तर्गत एक खण्ड होगा। इस खण्ड में से एक निबन्ध लिखना होगा। इस निबन्ध की अधिकतम विस्तार सीमा 1000 शब्द होगी। निबन्ध हेतु निम्नवत् क्षेत्र होंगे:-

- 1- साहित्य, संस्कृति
- 2- राष्ट्रीय विकास योजनायें/क्रियान्वयन
- 3- राष्ट्रीय-अन्तर्राष्ट्रीय, सामयिक सामाजिक समस्यायें/निदान
- 4- विज्ञान तथा पर्यावरण
- 5- प्राकृतिक आपदायें एवं उनके निवारण
- 6- कृषि, उद्योग एवं व्यापार

**(2) Optional Subjects**

**वैकल्पिक विषय**

**(द्वितीय प्रश्नपत्र)**

**परीक्षा योजना-** वैकल्पिक विषयों के (परम्परागत) प्रश्नपत्र की रचना हेतु प्रश्नपत्रों के स्वरूप एवं अंकों का विभाजन निम्नवत् है:-

1- प्रश्नों की कुल संख्या-20 होगी। सभी प्रश्न अनिवार्य होंगे। सभी प्रश्न खण्डों में विभाजित रहेंगे।

**खण्ड-अ-** के अन्तर्गत प्रश्नपत्र में 05 प्रश्न सामान्य उत्तरीय (उत्तरों की शब्द सीमा 250) एवं प्रत्येक प्रश्न 25 अंक का होगा।

**खण्ड-ब-** के अन्तर्गत 05 प्रश्न लघुउत्तरीय (उत्तरों की शब्द सीमा 150) एवं प्रत्येक प्रश्न 15 अंक का होगा।

**खण्ड-स-** के अन्तर्गत में 10 प्रश्न अतिलघु उत्तरीय (उत्तरों की शब्द सीमा 50) एवं प्रत्येक प्रश्न 10 अंक का होगा।

**वैकल्पिक विषय का पाठ्यक्रम**

**Physics**

**(I) MECHANICS:-** Vector algebra: scalar and vector products, vector identities, background of vector calculus, concept of line, surface and volume integrals, physical meaning of gradient, divergence and curl, Gauss and Stoke's theorems.

Centre of mass, rotating frame of reference, co riolis force, motion of rigid bodies, moment of inertia, theorem of parallel and perpendicular axes, movement of inertia of sphere, ring, cylinder and disc. Angular momentum, torque, central force, Kepler's Law, motion of satellite (including geostationary satellite), Galilleon transformation, special theory of relativity, Michelson - Morley experiment, Lorentz transformation equations, variation of mass and length with velocity, time dilation, addition of velocities and mass-energy equivalence relation.

Stream line and turbulent motions, Reynold's number, Stoke's law, Poiseulle's formula, flow of liquid through narrow tube. Bernoulli's formula with applications, surface tension, Stress- strain relationship, Hooke's Law, moduli of elasticity and interrelation between them Poisson's ratio, elastic energy.

**(II) THERMAL PHYSICS:-** Concept of temperature and the zeroth law, first law of thermodynamics and internal energy, isothermal and adiabatic changes, second law of thermodynamics, Entropy, Carnot cycle and Carnot engine, absolute scale of temperature. Maxwell's thermodynamical relations. The Clausius- Clapeyron equation, porus plug experiment and Joule Thomson effect.

Kinetic theory of gases, Maxwell distribution law of velocities, calculation of mean velocity, root mean square velocity and the Most probable velocity, degrees of freedom, Law of equipartition of energy, specific heats of gases, mean free path, transport phenomena.

Black body radiation, Stefan's law, Newtons law of cooling Wien's law, Rayleigh Jeans law, Planck's law, solar constant.

Production of low temperatures by adiabatic demagnetization.

**(III) WAVES AND OSCILLATIONS:-** Oscillation, simple harmonic motion, stationary and progressive waves, damped harmonic-motion, forced oscillations and resonance, sharpness of resonance, wave equation, Plane and spherical waves superposition of waves. Fourier analysis of periodic waves- square and triangular waves, phase and group velocities, Beats.

**(IV) OPTICS:** Cardinal points of a coaxial system, simple problems on combination of thin lenses eyepiece- Ramsdon and Huygens eyepieces.

Huygen's principle, conditions for sustained interference Young double slit experiment division of amplitude and wavefront, Fresnel biprism, Newtons rings, Michelson-interferometer, diffraction by straight edge, single, double and multiple slits. Rayleigh's criterion, resolving power of optical instruments.

Polarization, production and detection of polarized light (linear circular and elliptical) Brewster's law, Huygen's theory of double refraction, optical rotation, ploearimeters.

**LESERS:-** Temporal and spatial coherence, stimulated emission, basic ideas about laser emission, Ruby and He-Ne lasers.

**(V) ELECTRICITY AND MAGNETISM:-** Gauss law and its applications, electric potential, Kirchoff's laws and their applications, Wheatstone's bridge, Biot-Savart law, Ampere's circuital law, and their applications. Magnetic induction and field strength, magnetic field on the axis of circular coil, Electro magnetic induction, Faraday's and Lenz's law, self and mutual inductances, alternating current, L.C.R. circuits, series and parallel resonance Circuits, quality factor. Maxwell's equations and electromagnetic waves transverse nature of electromagnetic waves, Poynting vector, dia-, para-, ferro-, antiferro- and ferri-magnetism (qualitative approach only), hysteresis.

**(VI) MODEREN PHYSICS:** Bohr's theory of hydrogen atom, electron spin, Pauli's exclusion principle, optical and X-ray spectra, spatial quantization and Stern-Gerlach experiment, vector model of the atom, spectral terms, fine structure of spectral lines J-J and L-S coupling, Zeeman effect, Raman effect, photoelectric effect, Compton effect, de Broglie waves, wave-particle duality, Uncertainty principle, postulates of quantum mechanics, Schrodinger wave equation and its applications to (i) particle in a box (ii) motion across a step potential (iii) one dimensional harmonic oscillator, and eigen values, Einstein's and debye theory of specific heat of solids. Band theory of solids energy band, Kronig-Penny model in one dimension, energy gap, distinction between metals, semiconductors and insulators, variation of Fermi level with temperature and effective mass.

Radio activity, alfa, beta and gamma radiations, elementary theory of alpha decay, nuclear binding energy, Semi emperical mass formula, nuclear fission and fussion and nuclear reactors elementary particles, particle accelerator, cyclotron, linear accelerator, Elementary idea's of super conductivity. **(VII) ELECTRONICS:-** Intrinsic and extrinsic semiconductors, PN, junction, Zener diode, and their characteristics, unipolar and bipolar transistors solar cells, use of diode and transistor for rectification, amplification, oscillation, modulation and detection, waves. Logic gates and their truth tables, some applications.

**Chemistry**

**(A) Physical chemistry** Gaseous-state:- Molecular velocity of gases, mean free path and collision diameter, liquification of gases joule thomson effect in ideal and nonideal gases, Joule "Thomson coefficient, inversion temperature, Deviation from ideal gas behavior

continued.

vander waals equation of state, Law of corresponding state, critical constants and their relations with-vander waals constants

**Liquid state:-** surface Tension, effect of temperature on surface tension, viscosity, effect of temperature and pressure on viscosity.

**Solid State:-** symmetry in crystal systems, Miller indices close packing, coordination number, structure of NaCl and CaF<sub>2</sub>, crystal-defects.

**Thermodynamics:-** first law of thermodynamics and its limitations, enthalpies of a system, heat of reaction formation, combustion and neutralization, Hess's law and its application bond energy and resonance energy, heat capacities at constant volume and constant pressure, relationship between. Cp and Cv extensive and intensive properties, statement of second law of thermodynamics Carnot cycle, concept of entropy, variation of entropy with temperature and volume/pressure, concept of free energy: Helmholtz and Gibbs free energies, Gibbs - Helmholtz equation, thermodynamic criteria of equilibrium, Clapeyron-clausius equation and its application, van't hoff equation and Gibbs- Duhem equation.

**Dilute solution:-** Ideal and non ideal solutions, Raoult's Law colligative properties (thermodynamic treatment) Lowering of vapour pressure, osmotic pressure, elevation of boiling point and depression of freezing point in solution, abnormal colligative properties molecular weight determination by colligative properties.

**Surfacephenomenon-** physical and chemical adsorption Freundlich adsorption isotherm Langmuir adsorption isotherm.

**Colloidal State** - Coagulation, Coagulation Value Gold-number, Hardy-Schulze rule, stability of colloids, zeta potential

**Chemical Kinetics-Molecularity** and order of reaction, rate of reaction Zero first second and third order reactions and their determination effect of temperature on reaction velocity, energy of activation, catalysis, criteria of catalysis, enzymes catalysis, primary salt effect in ionic reactions.

**Chemical equilibrium-** Law of mass action and its application to homogeneous and heterogeneous equilibria, relationship between Kp and Kc. Le chatelier principle and its application to chemical equilibrium, degree of dissociation and abnormal; molecular Weight hydrolysis of salts, Bronsted & Lewis acid and base. pH, buffer solution, solubility and solubility Product of sparingly soluble salts:-

**Electrochemistry-** Electrolytic conductance-equivalent, specific and molecular conductances, variation of conductances with dilution of solutions, Kohlrausch's law of independent migration of ions, factors affecting the conductances, types of single electrode and their potentials, EMF of the cell, Nernst equation. EMF and equilibrium constant, concept of concentration cell With and without transference, liquid junction potential chemical cells without transference, fuel cells

#### B- Inorganic:

Atomic structure- dual nature of particle, Heisenberd's uncertainty principle, Schrodinger's wave equation atomic orbitals, quantum numbers, shapes of s,p,d orbitals, Aufbau principle and Pauli's exclusion principle, Hund's law, electronic configuration of elements, modern periodic table, periodic properties of the elements and their variation in periodic table, chemical bond- Ionic bond, lattice energy, Born- Haber cycle, salivation energy, Covalent bond (Fajan's rule) Bond order, energy level diagram, of homonuclear and heteronuclear molecules, Hybridisation and shapes of inorganic molecules and ions, valence shell electron pair repulsion theory and its application, stability of nucleus, mass defect and nuclear binding energy, radioactivity, nuclear reactions-fusion and fission, carbon dating.

**S-block elements-**chemistry of lithium and beryllium, abnormal behavior and diagonal relationship.

**P-block elements-** chemical reactivity of elements in group, inert pair effect, structure of their hydrides and halides, oxyacids of N, P, S and halogens, interhalogens

**d-block elements:** General characteristics- variable oxidation state, complex formation, magnetic properties, colour and catalytic properties,

coordination compounds-nomenclature, stereo chemistry of metal, complex and isomerisation, effective atomic number and valence bond theory, crystal field theory, crystal field splitting in tetrahedral and Octahedral complexes, crystal field stabilization energy substitution reaction in square planar complexes, electronic spectrum, molecular orbital energy level diagram in tetrahedral and octahedral complexes (bond only) Orgel energy level diagram for d-1 and d<sub>9</sub> states

**Organometallic chemistry-** Definition, nomenclature and classification of organometallic compounds

**Bioinorganic chemistry-** Structure and function of myoglobin Hemoglobin, chlorophyll and cyano cobalamine-

**f-block elements:** Electronic structure, lanthanide contraction and its consequences, magnetic and spectral properties and their differences from transition metals ion exchange and solvent extraction methods of separation of lanthanides chemistry of actinides.

#### A- ORGANIC CHEMISTRY:-

**1- ORGANIC CHEMISTRY-** Some Basic Principles Techniques:-

(a) Classification of organic compounds

(b) IUPAC Nomenclature of organic compounds

(c) Types of organic reaction

(d) Mechanism of organic reaction- Homolytic & Heterolytic fission of covalent Bond, carbocations, carbanions carbenes, free Radicals, Electrophile & Nucleophile Sn 1 & Sn 2 reaction

(e) Electronic Displacements in covalent Bond- Inductive effect, electromeric effect Resonance, Hyperconjugation

(f) purification of organic Compounds:- fractional Distillation, chromatography

(g) estimation of elements in organic compounds

#### 2- Isomerism:-

structural & stereo Isomerism, (Geometrical & optical Isomerism) Tautomerism conformation

#### 3- Hydrocarbon:-

**a-** General methods of preparation, physical & chemical properties of Alkane, Alkene & Alkynes, Location of double bonds by ozonolysis of Alkene.

#### b- Aromatic Hydrocarbon:-

**Benzene-** Its structure, resonance Aromaticity preparation & physical and chemical properties of Benzene

Mechanism of electrophilic substitution- nitration, sulphonation, Halogenation, Friedel craft's Alkylation & Acylation. Directive Influence of groups in mono substituted benzene. Carcinogenicity & (Toxicity chemistry of toluene)

#### c- Derivatives of Benzene:-

Preparation, Physical & chemical properties of Phenol, Aniline, Anisole Benzaldehyde & Benzoic Acid

#### 4- Haloalkanes:-

General Methods of preparation, physical and chemical properties preparation and properties of chloroform and Iodoform, Freon

**5- Alcohols:-** classification, General methods of preparation, Physical & chemical properties, mechanism, of dehydration of Alcohol, Denatured spirit, power alcohol, Absolute Alcohol fermentation of Alcohol Properties of Glycerol.

#### 6. Aldehyde & Ketones:-

General Methods of preparation, Physical & chemical properties, mechanism of Nucleophilic addition. **7- Ether:-** General methods of preparation of ether, physical & chemical Properties of Ether & uses

#### 8- Carboxylic acid and their Derivatives:-

General Methods of preparation physical and properties, Influence of substituents group on acidic nature of carboxylic acid, General methods of preparation & properties of acid, Halide, ester, Amide, & Anhydride

#### 9- Organic compounds containing nitrogen:-

**a- Amines:-** classification, general methods of preparation & properties, basic character of Amines, Distinction between primary secondary and tertiary amines

**b- Nitro Compounds:-**

General methods of preparation & properties of nitro compounds

**c- Cyanides & Isocyanides:-**

General methods of preparation & properties of cyanides & isocyanides

#### 10. Bio-molecules:-

**a- Carbohydrates:-** classification, Molisch's test of carbohydrate, Glucose & fructose: Preparation & properties, open & Ring structure of glucose mutarotation, Anomers.

**b- Proteins:** Alpha Amino acids, peptide bond, polypeptide, protein, structure of protein- Primary, secondary & tertiary structure, denaturation of proteins, Zwitter ion, Iso electric points;

**c- Lipids & hormones;**

oil & fats introduction, difference between oil & fats properties.

steroids- Natural & Artificial steroid Hormones- classification & physiological function

**d- Vitamins-** classification & functions deficiency diseases of vitamins

**e- Nucleic acids-**

Nucleotides & nucleosides, Difference between DNA and RNA primary structure of DNA DNA fingerprinting

**11- Polymers:-** classification natural & synthetic polymers, methods of polymerisation (addition & condensation) addition polymers-polythene, Teflon, PVC buna-s, Buna-N condensation polymer-Nylon 6, Nylon 6,6, bakelite, methyl melamine, Biodegradable & non biodegradable polymers

#### 12- Chemistry in everyday life:-

**a- chemicals in medicine:-** Analgesic, tranquilizers, Antiseptics, Disinfectant, antimicrobials, antibiotics, antacids, antihistamines. antioxidants

**b- chemicals in foods:** food preservative, artificial sweetening agent,

**c- cleansing agents-** difference between soaps & detergents cleansing action of Soaps.

#### Biology

#### BOTANY

#### Section:- (A)-

#### (1) Plant Diversity-

(a) Classification (Taxonomy) of plants.

(b) Study of habits and habitats, Structure and reproduction of the followings-

(i) Algae

(ii) Bryophyta

(iii) Pteridophyta

(iv) Gymnosperms

(v) Angiosperm with the following families- Cruciferae, Compositae, Malvaceae, Liliaceae and Solanaceae.

**(2) Angiosperms-** Morphology and Morphological Modifications in roots, stem, leaves etc. Histology, growth, reproduction and development.

#### (3) Plant Physiology-

(i) Water Relations-Transpiration, Translocation.

(ii) Photosynthesis.

(iii) Respiration and metabolism.

(iv) Plant Nutrition (Nutrients, Nitrogen fixation).

(v) Plant growth regulators (Phytohormones).

(vi) Flowering and Stress Physiology

(vii) Plant growth and movements.

**(4) Microbiology-** (i) Viruses, Phytoplasmata, Archaeobacteria, Eubacteria.

(ii) Fungi (general characteristics, classification growth and reproduction, life cycle).

(iii) Economic importance of Micro-organisms.

#### (5) Economic Botany-

(i) Medicinal and Aromatic Plants.

(ii) Food Plants.

(iii) Forage and Fodder Plants.

(iv) Fibre Crops.

(v) Fruit and Vegetable Plants.

(vi) Ethnobotany.

(vii) Ornamental Plants.

(viii) Oil Yielding Plants.

(ix) Timber Plants.

(x) Miscellaneous uses of Plants.

**(6) Plant Pathology**

(i) Causes, effects, control and cure of various Plant diseases.

(ii) Biological Control of Various Plant weeds, diseases and parasites.

**(7) Ecology and Environment-**

(i) Concept of Ecology and Environment

(ii) Various Habitats & Ecological Niches.

(iii) Ecosystem- Structure and function, Ecosystems stability, carrying capacity, Food-chain, Food-web, Energy flow, Ecological Pyramids, Biomes.

(iv) Population, biotic community.

(v) Bio-geo-Chemical Cycles.

(vi) Ecological Succession.

(vii) Natural Resources and their conservation.

(viii) Biodiversity and its conservation (In-situ and Ex-situ).

(ix) Environmental Pollution- Causes and its ill effects. Air, Water and Soil Pollution. Radioactive pollution, Noise Pollution, Ozone depletion, Acid rain, Eutrophication, Biological magnification, Ocean pollution, Ocean acidification, Control and prevention of various environmental Pollutions. Climate change, global warming and green-house effect, Environmental management. Renewable energy sources, food Security. for rising human population.

**Section - B**

**Zoology**

**(1) Animal Diversity-**

(i) Animal Taxonomy with characteristic features.

**(2) Non-Chordates-**

(i) Classification of Non-chordate phyla.

(ii) Morphology, Anatomy, Nutrition, Respiration and reproduction of the following Non-chordates- Amoeba, Sycon Hydra, Ascaris, Cockroach, Pila and Star-fish.

(iii) Parasitic protozoa

(iv) Parasitic adaptation in Helminths.

(v) Economic importance of insects.

**(3) Chordates-**

(i) Classification of chordates and various-classes of chordates with characteristic features and examples.

(ii) Aquatic adaptation in fishes.

(iii) Origin and evolution of terrestrial chordates.

(iv) Flying adaptations in birds.

(v) Phylogeny of prototheria, Metatheria and eutheria.

**(4) Anatomy of** — Frog, Pigeon and Rabbit.

**(5) Animal Histology-** Study of various tissues.

**(6) Animal Physiology and Biochemistry-**

(i) Nutrition and Digestion.

(ii) Respiration and metabolism.

(iii) Circulation-blood Heart. & Circulatory system.

(iv) Osmo regulation and Excretion.

(v) Movement and locomotion.

(vi) Nervous co-ordination and integration. Sense Organs.

(vii) Chemical co-ordination (Hormones and pheromones).

(viii) Immune system.

**(7) Animal Embryology-**

(i) Gametogenesis

(ii) Fertilization in lower and higher animals.

(iii) Types of Eggs and cleavage.

(iv) Organogenesis.

(v) Development of Frog and Metamorphosis.

(vi) Foetal membranes in Birds.

(vii) Placenta in mammals. Regeneration.

(viii) Human reproduction and reproductive physiology.

**(8) Cell Biology (Cytology and Molecular Biology)**

(i) Prokaryotic and eukaryotic cells- their structure and properties.

(ii) Cell division (mitosis and meiosis).

(iii) Structure and functions of various cell organelles.

(iv) Chromosome structure and their behavior during cell division.

(v) Nucleic acids-Molecular structure of DNA and RNA.

DNA as genetic material

DNA replication and repair.

(vi) Genetic: code central dogma, protein synthesis and Gene expression.

**(9) Genetics-**

(i) Mendel's laws of inheritance.

(ii) Co-dominance- and incomplete dominance and interaction of Genes.

(iii) Chromosomal theory of inheritance.

(iv) Linkage and crossing over.

(v) Sex-determination.

(vi) Multiple gene inheritance and polypody.

(vii) Human genetic disorders.

(viii) Mutation.

**(10) Biotechnology-**

(i) Concepts, principles and scope of Biotechnology.

(ii) Tools and techniques in Biotechnology.

(iii) Recombinant DNA technology and its applications in human welfare.

(iv) Tissue culture, somatic hybridization.

(v) Genetically modified Organisms, GM. crops (Risk and concerns), Gene Bank and ethical concerns.

**(11) Organic Evolution-**

(i) concept and principles of evolution.

(ii) Origin of life.

(iii) Theories of evolution (Lamarck, Darwin).

(iv) Evidences for evolution.

(v) Neo-Darwinism and synthetic theory of evolution.

(vi) Variations.

(vii) Human evolution.

**Mathematics**

**1. Relation and functions:** Types of relations: reflexive, Symmetric, transitive and equivalence relations. Equivalence class. One-one and onto functions, composite of functions, inverse of function, Binary operation.

**2. Algebra:**

(i) **Matrices:** Types of matrices, zero matrix, transpose of a matrix symmetric and skew symmetric Matrices. Addition, multiplication & scalar multiplication of matrices. Singular and non-singular matrices. Invertible matrices.

(ii) **Determinants:** Determinants of a square matrix (up to 3x3 matrix) Properties of determinants, Adjoin and inverse of a square matrix. Consistency and number of solutions of system of linear equations by examples. Solving system of linear equations in two or three variables (having unique solutions).

(iii) Theory of equations of degree greater than or equal to two. Arithmetical, Geometrical and Harmonical progressions. Permutations and combinations, Binomial theorem. Sum of exponential and logarithmic series.

(iv) **Probability:** Multiplication theorem on probability, Conditional probability, Independent events. Total probability. Bayes's theorem distribution.

**3. Calculus .**

(i) **Limit of a function:** Continuity & differentiability, derivative of composite functions, and differentiation of different types of functions. Chain rule, Rolle's theorem and Lagrange mean value theorem, Maclaurin's & Taylor's series. L. Hospital's rule, partial differentiation, successive differentiation, Leibnitz theorem, equation of tangent & normal to a given curve, Maxima, minima, increasing and decreasing functions.

(ii) **Integration:** Various methods of integration definite integration as a limit of sum, Basic properties of definite integrals & evaluation of definite integrals. Application in finding the area under simple curves of spheres, cones & cylinders.

(iii) **Differential equations:** Order and degree of a differential equations. Formation of differential equations whose general solution is given. Solution of differential equations of 1st order & 1st degree. Linear differential equations with constant coefficients Homogeneous differential equations.

**4. Co-ordinate geometry of two dimensions:**

Equation of the pair of straight lines in homogeneous and non homogeneous form. Conditions when a non homogeneous equation of 2nd degree represent circle, parabola ellipse and hyperbola. equation of tangents & normals to the above conics. Common tangents to the two conics, Pair of tangents. Chord of contacts, polar lines to the above conics.

**5. Vectors and three dimensional geometry:**

(i) **Vectors:** Vector & scalars. Unit vectors, Direction cosines/ratios of a vector. Multiplication of a Vector by scalar, dot product, cross product of vector and their in physics (work done and moments, angular velocity, projection of a vector on a line. Angle between two vector.)

(ii) **Three dimension Geometry:** Direction cosine/ratios of line joining two points, Cartesian and vector equation of a line. Coplanar and skew lines, shortest distance between two lines, cartesian and vector equation of a plane. Angle between (a) two lines (b) two planes (c) A line and a plane Distance of a point from a plane. Intersection of two line, Intersection of a line of plane & intersection of two plane. Equation of a plane passing through the intersection of two planes.

(iii) **Equation of a sphere, cones cylinders.**

**6. Group:** Examples- especially the group of nth roots of unity, group of residue class modulo n and modulo p where p is a prime. Subgroups, Homomorphism and isomorphisms properties of Homomorphism. Subgroups generated by a subset. Order of element in a group, Cyclic group, Symmetric group -  $S_n$ . Lagrange theorem, Fermat's theorem with application point of view. Normal subgroups, Fundamental theorem of Homomorphism, Endomorphism, automorphism, First isomorphism theorem and second isomorphism theorem.

Ring and field with simple examples as  $(\mathbb{Z}_n, +, \cdot)$  &  $(\mathbb{Z}_p, +, \cdot)$

**Linear Algebra:** vector space with examples, subspace, linear dependence and independence, Basis and dimension of a vector space, Quotient space, Sum and direct sum of spaces. Linear transformation, Kernel and image, of a-linear transformation, Rank and nullity of linear transformations, Rank nullity theorem. Composite of linear transformations and its rank & nullity. Singular and non singular linear transformation, Transpose, of a linear transformations, Matrix of a linear transformation. **Vector differentiation:** Gradient, divergence, curl, first order vector identities. Directional derivatives (with application point of view).

**Vector integration:** Line integral; surface integral, volume integral, Green's theorem, Gauss-divergence theorem, Stokes's theorem, (From application point of view).

**Riemann integration:** Integration of discontinuous functions, Lower and upper integrals of a bounded functions, Integration of a step function and signum function.

**Statics:** Equilibrium of a body under the action of three forces, coplanar forces, Equilibrium of a body Under the Action of a system of coplanar forces, Centre of gravity catenary Friction.

**Dynamics:** Motion of a projectile in vertical plane under gravity, Work power and energy Direct impact of smooth bodies, Radial and transverse Velocity and acceleration. Tangential and normal acceleration.

**Trigonometry:** Trigonometric equations, Properties of triangles Inverse circular functions, Height and distance, Complex numbers, De Moivre's theorem & its application, nth roots of unity.