



# अखिल भारतीय आयुर्विज्ञान संस्थान, नागपुर

प्लॉट नंबर - 2, सेक्टर - 20, मिहान, नागपुर - 441108

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NAGPUR**

Plot No - 2, Sector - 20, MIHAN, Nagpur- 441108

Website: <http://aiimsnagpur.edu.in>



No. AIIMS/NGP/REC/Nonfaculty/2023/01

Date: 01.07.2023

## ADVERTISEMENT FOR RECRUITMENT TO VARIOUS NON-FACULTY POSTS ON DIRECT RECRUITMENT BASIS AT AIIMS NAGPUR

Opening Date of Online Application	Closing Date of Online Application
04.07.2023	31.07.2023

AIIMS Nagpur is an apex healthcare institute, established by the Ministry of Health and Family Welfare, Government of India under the Pradhan Mantri Swasthya Suraksha Yojna (PMSSY) with the aim of correcting regional imbalances in quality tertiary level healthcare in the country and attaining self-sufficiency in graduate and postgraduate medical education and training.

The Executive Director, AIIMS Nagpur invites online applications from the Indian nationals for recruitment to the following Non-Faculty posts on direct recruitment basis:

Sr. No	Name of the Post	Group	Pay Level (7 <sup>th</sup> CPC)	No. of Vacancies					Total
				UR	OBC	SC	ST	EWS	
1	Associate Professor/ Reader	A	Level-12	2	-	-	-	-	2
2	Medical Social Worker	B	Level-07	1	-	-	-	-	1
3	Technical Assistant/Technician	B	Level-06	1	-	-	-	-	1
4	Cashier	C	Level-04	1	-	-	-	-	1
5	Jr. Administrative Assistant (LDC)	C	Level-02	1	-	-	-	-	1
6	Lab Technician	C	Level-05	4	1	-	-	-	5
7	Lab Attendant Grade II	C	Level-02	1	1	-	-	-	2
8	Stenographer	C	Level-04	1	-	-	-	-	1
9	Hospital Attendant Grade III	C	Level-01	19	10	5	3	3	40
<b>Total No. of Vacancies</b>				<b>31</b>	<b>12</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>54</b>

**Note-I:** All the above-mentioned posts are identified suitable for PwBD candidates (with specified disability). Horizontal reservation of 4% and other relaxations as per the Govt. of India rules shall be admissible to PwBD candidates. Eligible PwBD candidates are encouraged to apply.

## Note-II:

1. Eligibility criteria, procedure to apply online, selection procedure etc. for the above-mentioned posts are given in the succeeding paragraphs.
2. Reservation and/or relaxation to candidates belonging to various categories i.e. SC, ST, OBC-NCL, EWS, PwBD, Ex-SM will be as per the GoI rules on production of relevant and valid certificate in the format prescribed by the Govt. of India.
3. The Executive Director, AIIMS Nagpur reserves the right to vary the vacancies as per the requirements of the Institute / instructions from the Govt. of India.
4. All information related to this recruitment i.e. online application procedure, selection procedure, conduct and result of CBT/skill test, changes in vacancies, corrigendum, addendum, document verification etc. will be published on the website of AIIMS Nagpur (<https://aiimsnagpur.edu.in>) from time to time. Hence, the Institute will not enter into any correspondence with candidates in such matters.

**I. Eligibility Criteria:** As given in **Annexure-I**.

**II. Important instructions to candidates:**

1. The portal for online registration and application for these posts will be available on the website of AIIMS Nagpur (<https://aiimsnagpur.edu.in>) from **04/07/2023**.
2. Aspiring candidates fulfilling the prescribed eligibility criteria for the post are required to apply only **online** as per procedure given in this advertisement.
3. Before applying, candidates must carefully go through the eligibility criteria and ensure that they fulfil the same so as to avoid disqualification at later stage.
4. Candidates are **not required** to send any document at the time of form filling. However, they must keep a **pdf** copy and/or print out of online application form with them which will be required with other documents during the **document verification (DV)** or whenever asked by the Institute.
5. Candidates working in Central/State/UT Government Organizations/PSUs/ Autonomous Bodies are required to submit NOC from their current employer at the time of DV or as asked by the Institute without which they will not be allowed for further recruitment process.
6. Age and all other qualifications will be counted as on the last date of submission of online application i.e. **31.07.2023**. Period of experience wherever prescribed shall be counted **after obtaining** the prescribed qualification.
7. As per the Ministry of Education (erstwhile MHRD) Notification dated 27.08.2018, all the degrees/ diplomas/ certificates awarded through Open and Distance Learning mode of education by the Universities established by an Act of Parliament or State Legislature, Institutions under Section 3 of the UGC Act, 1956 and Institutions of National Importance declared under an Act of Parliament stand automatically

recognized for the purpose of employment under the Central Government provided they have been approved by the UGC and wherever necessary by AICTE for the programmes for which it is the regulatory authority.

8. Candidates possessing equivalent educational qualification shall be required to produce relevant Equivalence Certificate from the authorities concerned at the time of Document Verification. However, final decision regarding equivalence of qualification and selection of such candidates will be taken by AIIMS Nagpur.
9. The Institute will not undertake detailed scrutiny of applications for eligibility and other aspects before or at the time of CBT and, therefore, candidature/ application will be accepted only **provisionally**. Before applying, candidates must go through the eligibility criteria viz. Educational qualification, experience, age etc. and satisfy themselves that they are eligible for the post. Candidature may be cancelled forthwith without any further notice if any information or claim is not found substantiated during recruitment process/document verification.
10. Success in examination/CBT confers no right of appointment to candidates unless AIIMS Nagpur is satisfied after such verification as may be deemed necessary that the candidate is suitable in all respects for appointment to the post selected for.
11. **Medical Fitness:** Appointment of selected candidates is subject to his/her being declared medically fit by the competent Medical Board.
12. **Probation:** Persons selected will be appointed on probation as per the extant rule.
13. **Final Decision:** The decision of AIIMS Nagpur in all matters relating to this recruitment will be final and binding on the candidates and no representation/ correspondence will be entertained in this regard.
14. **Disqualification:** No person, (a) who has entered into or contracted a marriage with a person having a spouse living; or (b) who, having a spouse living, has entered into or contracted a marriage with any person, shall be eligible for appointment to the service, provided that Central Government may, if satisfied with the reasons/grounds, that such marriage is permissible under the personal law applicable to such person and the other party to the marriage and there are other grounds for so doing, exempt any person from the operation of this rule.

### III. Selection Procedure:

1. For Group 'A' posts at Sr. No. 01, the mode of selection will be based on the performance of Interview only, however the Institute may hold a Screening Test or any other screening process to shortlist candidates to be called for Interview in those posts against which more eligible candidates will apply. The decision of the Institute in this regard will be final. The performance in Screening Test will carry no weightage in the Interview and the final selection will be based on the performance of the Interview only.
2. For Group 'B' and Group 'C' posts, the mode of Selection will be done on the basis of performance of candidate in Computer Based Test (CBT) in the order of merit subject to qualifying the 'Skill Test' (if conducted) and fulfilling the eligibility criteria by candidates during document verification.
3. Skill test, if decided, will be conducted only for shortlisted candidates

(in the order of merit to a certain extent with reference to the number of vacancies). It will be qualifying in nature. The date and details of skill test, if decided, will be notified on the website of AIIMS Nagpur in due course.

**IV. Date of Online (CBT) mode Examination/Interview will be intimated later on only AIIMS Nagpur, Website.**

Note:

1. **Test Centre:** CBT is likely to be held at the below mentioned cities. Candidates must indicate their preference in the order of priority in the online application form in which they desire to take the CBT. However, the Institute reserves the right to cancel any of the Centre on ground of less number of candidates or any other ground and ask candidates of that centre to appear from another centre/city. Further, no request for change of examination/CBT centre once allotted will be entertained, Candidates will have to appear at the allotted centre at his/her own arrangement and expenses. Tentative test centre/city for CBT are as follows:-

1. New Delhi/ Delhi NCR	2. Mumbai/ Thane/Navi Mumbai/ MMR	3. Kolkata	4. Hyderabad
5. Bengaluru	6. Lucknow	7. Nagpur	

2. **e-Admit Card for CBT:** Candidates shall be issued an e-Admit Card for appearing in CBT. The e-Admit Card will be made available on the website of AIIMS Nagpur for downloading by candidates. 'Admit Card' will **not** be sent to candidates by any other mode. In case of any discrepancies/errors in e-Admit Card, candidates must immediately report the same to the Recruitment Cell, AIIMS Nagpur for correction.
3. Candidates must note that merely issuing of e-Admit Card to them will not imply that their candidature has been finally cleared by the Institute. The Institute will take up verification of eligibility conditions with reference to original documents only after the candidate qualifies the CBT or for Interview, as the case may be.
4. **Resolution of Tie Cases:** In the event of tie in scores of candidates in CBT/ examinations, merit will be decided by applying following criteria, one after another in the order given below till the tie is resolved:-
  - (a) First by using number of wrong answers: candidate with less wrong answers (negative marks) in CBT will be placed higher in the order of merit.
  - (b) By date of birth: older candidate will be placed higher in the order of merit.
  - (c) By alphabetical order in which the names of the candidates appear.
5. **Result of CBT:** Result of CBT will be published on the website of AIIMS Nagpur in due course. No separate correspondence shall be entertained in this regard.
6. **Document Verification:** Original documents of shortlisted candidates in the order of merit (to a certain extent with reference to the number of vacancies) will be verified in due course. The date and details of document verification will be notified on the website of AIIMS Nagpur after declaration of CBT result.

7. **Final Result:** The final result (i.e. list of selected candidates) will be published on the website of AIIMS Nagpur.

**V. Syllabus and Scheme of Examination for the same is mentioned in ANNEXURE-II**

**VI. Age Relaxation:** Age relaxation permissible to candidates of various categories beyond the prescribed upper age limit of the advertised posts is as under:-

S. No	Category	Age Relaxation	Remarks
(a)	OBC-NCL	3 years	Only for posts reserved for OBC-NCL
(b)	SC / ST	5 years	Only for posts reserved for SC/ST
(c)	PwBD	10 years	With not less than 40% of specified disability and provided that the age of applicant shall not exceed 56 years.
(d)	Central Govt. Employees	5 years	For those who have completed three years of regular service.
(e)	Ex-servicemen/ Commissioned Officers	Length of military service increased by three years.	
<ul style="list-style-type: none"> <li>• Candidates belonging to SC/ST/OBC category who are also coming under the category of Ex-servicemen or PwBD or Central Govt. employees will be eligible for grant of cumulative age-relaxation under both categories, if they apply for the posts reserved for their category.</li> <li>• Age relaxation to any other category will be as per the Government of India rules.</li> <li>• All the above-mentioned relaxations in upper age limit shall be permissible <b>only on</b> fulfilment of terms and conditions mentioned in the relevant rules.</li> </ul>			
5 years of age relaxation to candidates who have completed three years of regular service in State Govt./Autonomous Institutions for the post of Associate Professor/ Reader, Medical Social Worker, Technical Assistant/Technician, Jr. Administrative Assistant (LDC), Cashier, Lab Technician, Lab Attendant Grade II , Stenographer and Hospital Attendant Grade III as per relevant RRs.			

**VII. Important Note for Candidates:**

1. Age relaxation and/or reservation shall be admissible to SC/ST/OBC candidates only against the **vacancies reserved for them** on submission of valid caste/category certificate. The caste/community of such candidate should be included in the list of reserved communities issued by the Central Government.
2. EWS category candidates are required to produce 'Income and Asset' certificate valid for the year 2023-24 as per the format given in DoPT O.M. dated 31.01.2019.
3. OBC-NCL candidates applying for the vacancies reserved for them must produce OBC-NCL certificate based on the income for the Financial Year 2022-23, 2021-22 and 2020-21. In other words, date of issue of OBC-NCL certificate should be in the Financial Year 2023-24. It should be in

the format prescribed by the Govt. of India.

4. Reserve category candidates who are selected on their own merit without any relaxed standards will be accommodated against the unreserved vacancies as per their position in the order of merit. The reserved vacancies will be filled up from amongst the eligible relevant reserved category candidates in the order of merit.
5. Reserved category candidates who qualify on the basis of relaxed standards viz. age limit, experience, qualifications, etc, irrespective of their merit position will be counted against reserved vacancies only.
6. In so far as cases of Ex-serviceman (Ex-SM) are concerned, deduction of the military service rendered from the age of ex-servicemen is permissible against the reserved or unreserved posts and such exemption will not be termed as relaxed standards in regard to age. Similarly, for PwBD candidates, relaxation of 10 years in upper age limit will not be termed as relaxed standards.
7. A person with benchmark disability (PwBD) who is selected on his own merit can be appointed against an unreserved vacancy provided the post is identified suitable for persons with benchmark disability (PwBD) of relevant category.
8. Benefits to PwBD will be allowed in accordance with the Rights of Persons with Disabilities Act, 2016 and Rules framed there-under. Benefit under the PwBD category will be admissible to only those who suffer from not less than 40% of specified disability. Such PwBD candidates have to submit a Disability Certificate issued by the competent authority in the prescribed format.
9. Specified/suitable category of disabilities for the posts for PwBD candidates will be as per the Ministry of Social Justice and Empowerment, Govt. of India, Notification No. 38-16/2020-DD-III dated 04.01.2021 and as decided by the appointing authority considering the functional/physical requirements of the post. The Institute may verify the authenticity of the certificate of disability and examine suitability of the candidate in terms of functional requirements before appointment. In this regard, the decision of the Institute will be final.
10. Ex-servicemen/Commissioned Officers seeking age relaxation shall be required to produce Discharge Book/ documents issued by the competent authority in support of their category to avail admissible benefits (reservation / relaxation).
11. Ex-servicemen who have already secured employment in civil side under Government in Group 'C' or 'D' posts on regular basis after availing of the benefit of reservation given to ex-servicemen for their re-employment are not eligible for reservation in ESM category. However, such candidate can avail of the benefit of reservation as ex-serviceman for subsequent employment if he/she immediately after joining civil employment, gives self-declaration/undertaking to the concerned employer about the various vacancies for which he had applied for before joining the initial civil employment as mentioned in the DoPT OM dated 14.08.2014.
12. Request for change of category i.e. reserved to unreserved or vice-versa will not be entertained. In cases of enlisting a particular community in the list of any of the reserved communities by the Govt. of India not more than 3 months before the submission of application, the request of change of category from Unreserved to Reserved may be considered by the Institute on merit.

13. In case of a candidate unfortunately becoming a candidate belonging to Person with Benchmark Disability during the course of the examination process, the candidate should produce valid document of acquiring a disability to the extent of 40% or more as defined under the RPwD Act, 2016 to enable drawing the benefits of reservation/relaxation as available to the Persons with Benchmark Disability.

**VIII. Application Fee:** A non-refundable application fee is required to be paid only in online/digital mode. Applications without the prescribed fee (unless exempted) shall be summarily rejected. Fee once paid shall not be refunded under any circumstances nor can the fee be held in reserve for any other examination. The application fee applicable to various categories is as follows:-

<b>S. No</b>	<b>Category of the Candidate</b>	<b>Application Fee</b> (excluding transaction charges)
1.	General, OBC and EWS	Rs 1000/-
2.	SC, ST	Rs 800/-
3.	PwBD	NIL

**IX. Procedure for filling up Online Application:**

1. For filling up of online application form, candidates must have the following readily available with them:-
  - (a) Valid e-mail ID.
  - (b) Scanned passport size photograph of the candidate (in JPEG/JPG format).
  - (c) Scanned signature of the candidate (in JPEG/JPG format).
  - (d) Online payment option for payment of application fee, if applicable.
  - (e) Any other requirement, as per the advertisement.
2. Candidates must apply online through the website of AIIMS Nagpur <https://aiimsnagpur.edu.in>. Applications received through any other mode will not be accepted and summarily rejected.
3. Candidates have to go to the online application portal/web-link given on the website of AIIMS Nagpur (<https://aiimsnagpur.edu.in>), register themselves and follow the instructions on the application portal for filling up online application form.
4. Candidates must fill all the fields of online application form correctly. There is no provision for correcting the details after submission of online application form. Request for change in any information at later stage will not be considered.
5. Candidates who wish to apply for more than one post should apply separately for each post and pay the applicable fee for each post in the online/digital mode only.
6. Only one online application is allowed to be submitted by a candidate for a particular post. In case of multiple Online Applications from a candidate, the Online Application with higher "Application Number" shall be considered for further process subject to fulfillment of other requirement including successful payment of application fee. In such cases, fee paid against one "Application Number" shall not be adjusted against any other "Application Number".
7. While applying online, candidates must ensure that in the preview of

online application form, their photo and signature are clearly visible. If photo/signature is not clearly visible in preview that means the image file of photo or/and signature are not as per the given specifications. It will lead to rejection of application. Hence, candidates are advised to adhere to the specifications of image.

8. Specifications for photograph and signature of the candidate to be uploaded in the online application should as per the specifications given below:

(a) Specification of **photograph** to be uploaded in the online application:

- (i) The photograph should be a recent passport size colour picture.
  - (ii) The background of the photograph should be a light-coloured or preferably a white background.
  - (iii) Cap, hat and dark/sun-glasses are not acceptable. Religious headwear is allowed but it must not be covering the face of candidate.
  - (iv) The preferred dimensions of the image are 200 x 230 pixels.
  - (v) Size of the image file should be between 20 KB – 100 KB.

(b) Specification of **signature** to be uploaded in the online application:

- (i) The preferred dimensions of the image are 140 x 60 pixels.
- (ii) Size of the image file should be between 10 KB – 50 KB.

#### **X. General Instructions to Candidates:**

1. All India Institute of Medical Sciences, Nagpur is an autonomous body under the Ministry of Health and Family Welfare, Govt. of India. Service under the Institute is governed by the Act and the Rules / Regulations framed under the Act. The matter of technical resignation is under consideration at the administrative ministry and admissible benefits, if any, will be discharged as per the decision of the ministry.
2. On appointment, in addition to pay, selected candidates will be entitled to other allowances and service benefits i.e. DA, HRA (or accommodation), TA, Leave, LTC, NPS, Employee Health Scheme etc. as admissible to employees of AIIMS Nagpur.
3. All the appointees are expected to conform to the rules of conduct and discipline as applicable to the employees of AIIMS Nagpur.
4. Without prejudice to criminal/legal/disciplinary action, the candidate is liable to be disqualified from the CBT/recruitment process on account of the following:-
  - (a) Using unfair means during the CBT/recruitment process; or
  - (b) Violating any of the instructions given in the e-Admit Card; or
  - (c) Impersonating or procuring impersonation by any person; or
  - (d) Misbehaving in the examination hall / place of document verification (DV); or
  - (e) Damaging infrastructure/equipment in the examination hall/place of DV; or
  - (f) Obstructing the conduct of examination/recruitment process; or
  - (g) Instigating other candidates to boycott the examination / DV process; or
  - (h) Making statements which are incorrect or false, suppressing material information, submitting fabricated documents, etc. or
  - (i) Any other inappropriate and undisciplined behaviour during the process.
5. The candidate should not have been convicted by any Court of Law.



6. In case, any information or declaration given by the candidate is found to be false or if the candidate has wilfully suppressed any material information relevant to this recruitment, he/she will be liable to be removed from the service and/or action, as deemed fit, may be taken against him/her by the appointing authority.
7. Date of birth filled by the candidate in the online application form and the same recorded in the Matriculation/ Secondary Examination Certificate will be accepted by the Institute for determining the age and no subsequent request for change will be considered or granted.
8. Candidates should note that their candidature will remain provisional till the veracity of the document submitted by them is verified by AIIMS Nagpur.
9. In case of any inadvertent mistake in the process of selection which may be detected at any stage even after the issue of appointment letter, the Institute reserves the right to modify/withdraw any communication made to the candidate.
10. The Executive Director, AIIMS Nagpur reserves the right of any amendment, cancellation, and changes to this advertisement as a whole or in part without assigning any reason.
11. No TA/DA will be paid for appearing in the recruitment process/test/interview.
12. Communication with candidates regarding recruitment process will be made through email ID provided by them in their online application form.
13. All the information related to the recruitment will be published on the website of AIIMS Nagpur (<http://aiimsnagpur.edu.in>). Candidates are advised to regularly visit the website of AIIMS Nagpur for updates related to the recruitment.
14. In case of any assistance or clarifications regarding the recruitment, candidates may contact: [nonfac.recruitment@aiimsnagpur.edu.in](mailto:nonfac.recruitment@aiimsnagpur.edu.in). Candidate must mention his/her Application ID and Post applying/applied for in the Subject line of e-mail. They may also call on 07103-295590 on working days (between 09 AM – 5 PM).
15. All the records related to this recruitment will be preserved up to 6 months from the date of declaration of result and thereafter, these shall stand destroyed except for selected candidates and matter pending in Hon'ble CAT/Court.
16. Any dispute in regard to this recruitment will be subject to the Court/Tribunal having jurisdiction over Nagpur (Maharashtra).

**Sd/-**

**Deputy Director (Admin.)  
AIIMS Nagpur**

**Eligibility Criteria**

<b>S. No.</b>	<b>Name of Post</b>	<b>Eligibility Criteria</b>
1.	Associate Professor/ Reader	<p><b><u>Essential:</u></b></p> <ol style="list-style-type: none"><li>Master's Degree in Nursing from a recognized Institution/ University</li><li>Registered Nurse and Midwife</li><li>Eight years' experience after M.Sc (Nursing) including 05(five) years teaching experience in Nursing.</li></ol> <p><b><u>Desirable:</u></b> Ph.D. in Nursing</p> <p><b><u>Age Limit:</u></b> Upto 50 Years.</p>
2.	Medical Social Worker	<p><b><u>Essential:</u></b></p> <ol style="list-style-type: none"><li>MA (Social Work)/MSW, with specialization in Medical Social Work, from a recognized University/Institution</li><li>5 Years' Experience in a government or private sector hospital of minimum 500 beds in line with welfare or Health Agency, preferably dealing with Medical/Public Health Service.</li></ol> <p><b><u>Desirable:</u></b> Ability to use computers- Hands on experience in office applications, spread sheets and presentations.</p> <p><b><u>Age Limit:</u></b> Between 18-35 years of age.</p>
3.	Technical Assistant/ Technician	<p><b><u>Essential:</u></b></p> <ol style="list-style-type: none"><li>B.Sc. in Medical Lab Technology or equivalent.</li><li>5 Years' experience in the concerned field.</li></ol> <p style="text-align: center;">OR</p> <ol style="list-style-type: none"><li>Diploma in Medical Lab Technology or equivalent.</li><li>8 Years' experience in the concerned field.</li></ol> <p style="text-align: center;">OR</p> <ol style="list-style-type: none"><li>For posts in Anesthesia/Operation Theatre, B.Sc. in OT techniques or equivalent with 5 years' experience in concerned field.</li><li>10+2 with science with Diploma in OT techniques or equivalent with 8 years' experience in concerned field.</li></ol> <p><b><u>Age Limit:</u></b> Between 25-35 years.</p>
4.	Jr. Administrative Assistant (LDC)	<p><b><u>Essential :</u></b></p> <ol style="list-style-type: none"><li>12<sup>th</sup> Class or equivalent qualification from a recognized Board or University</li><li>Skill test norms on computer typing speed @35 w.p.m. in English or 30 w.p.m in Hindi. (Time allowed 10 minutes) (35 w.p.m or 30 w.p.m correspond to 10500 KDPH on an average of 5 key depressions for each word)</li></ol> <p><b><u>Desirable:</u></b> Basic Computer literacy.</p> <p><b><u>Age Limit:</u></b> Between 18-30 years of age.</p>

5.	Cashier	<p><b><u>Essential:</u></b> Degree in Commerce of recognized University or equivalent and</p> <ol style="list-style-type: none"> <li>At least 2 years' experience of handling accounts work of a Government Organization.</li> <li>Having proficiency in Computer application.</li> </ol> <p><b><u>Age Limit:</u></b> Between 21-30 Years.</p>
6.	Lab Technician	<p><b><u>Essential:</u></b> 10+2 with science. Diploma in Medical Lab Technology.</p> <p><b><u>Desirable:</u></b> B.Sc. in Medical Lab Technology</p> <p><b><u>Age Limit:</u></b> Between 21-30 Years.</p>
7.	Lab Attendant Grade II	<p><b><u>Essential:</u></b> 10+2 with science. Diploma in Medical Lab Technology.</p> <p><b><u>Desirable:</u></b> Experience: 2 years in relevant filed.</p> <p><b><u>Age Limit:</u></b> Between 18-27 Years.</p>
8.	Stenographer	<p><b><u>Essential :</u></b></p> <ol style="list-style-type: none"> <li>12<sup>th</sup> Class or equivalent qualification from a recognized Board or University</li> <li><b><u>Skill test norms:</u></b> Dictation – 10 Minutes @ 80 WPM Transcription-50 Minutes English or 65 Minutes Hindi on a Computer.</li> </ol> <p><b><u>Desirable:</u></b> Excellent command over Hindi and English (written and spoken)</p> <p><b><u>Age Limit:</u></b> Between 18-27 Years.</p>
9.	Hospital Attendant Grade III	<p><b><u>Essential:</u></b></p> <ol style="list-style-type: none"> <li>Matriculation from a recognized School/Board</li> <li>Certificate course in Hospital Services conducted by a recognized organization (Such as St. Johns Ambulance)</li> </ol> <p><b><u>Desirable:</u></b> Experience of having worked in a Hospital.</p> <p><b><u>Age Limit:</u></b> Between 18-30 years.</p>

**ANNEXURE-II**

<b>S. No</b>	<b>Post Name</b>	<b>Proposed Scheme</b>	<b>No. of Questions</b>	<b>Total Marks</b>	<b>Time Duration</b>	<b>Indicative Syllabus</b>
1	Cashier	(A) General Intelligence & Reasoning (B) General Awareness (C) Quantitative aptitude (D) English Comprehension	30 30 10 30	100	60 Minutes	As given below.

(A), (B), (C) & (D): **General Intelligence & Reasoning:** It would include questions of non-verbal type. The test will include questions on similarities and differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discriminating observation, relationship concepts, figure classification, arithmetical number series, non-verbal series etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationship, arithmetical computation and other analytical functions.

**General Awareness:** Questions will be designed to test the ability of the candidate's general awareness of the environment around him and its application to society. Questions will also be designed to test knowledge of current events and of such matters of everyday observation and experience in their scientific aspects as may be expected of an educated person. The test will also include questions relating to India and its neighbouring countries especially pertaining to Sports, History, Culture, Geography, Economic scene, General Polity including Indian Constitution, and Scientific Research etc. These questions will be such that they do not require a special study of any discipline.

**Quantitative Aptitude:** This paper will include questions on problems relating to Number Systems, Computation of Whole Numbers, Decimals and Fractions and relationship between Numbers, Fundamental arithmetical operations, Percentages, Ratio and Proportion, Averages, Interest, Profit and Loss, Discount, use of Tables and Graphs, Mensuration, Time and Distance, Ratio and Time, Time and Work, etc.

**English Language :** Candidates' understanding of the Basics of English Language, its vocabulary, grammar, sentence structure, synonyms, antonyms and its correct usage, etc. his/her writing ability would be tested.

Questions on 'General Intelligence and Reasoning' will be non-verbal considering the functions attached to the post. Questions on Numerical Aptitude and General English will be simple, of a level that an average matriculate will be in a position to answer comfortably. Questions on General Awareness will be also of similar standard. The questions in all parts will be of 10th standard level.

S. No	Post Name	Proposed Scheme	No. of Questions	Total Marks	Time Duration	Indicative Syllabus
2	Jr. Administrative Assistant (LDC)	(A) General Intelligence & Reasoning (B) General Awareness (C) Quantitative aptitude (D) English Comprehension	30 30 10 30	100	60 Minutes	As given below.

(A), (B), (C) & (D): Same as that of post at S. No. 1. Questions to be of matric level.

S. No	Post Name	Proposed Scheme	No. of Questions	Total Marks	Time Duration	Indicative Syllabus
3	Stenographer	(A) General Intelligence & Reasoning (B) General Awareness (C) Quantitative aptitude (D) English Comprehension	30 30 10 30	100	60 Minutes	As given below.

(A), (B), (C) & (D): Same as that of post at S. No. 1. Questions to be of matric level.

S. No	Post Name	Proposed Scheme	No. of Questions	Total Marks	Time Duration	Indicative Syllabus
4	Technical Assistant/Technician	For post of Technical Assistant/ Technician: Subject knowledge of concerned post	60	60	60 Minutes	As mentioned in Annexure- 'A'

<b>S. No</b>	<b>Post Name</b>	<b>Proposed Scheme</b>	<b>No. of Questions</b>	<b>Total Marks</b>	<b>Time Duration</b>	<b>Indicative Syllabus</b>
5	Lab Technician	Subject knowledge of concerned post	60	60	60 Minutes	As mentioned in Annexure- 'A'

<b>S. No</b>	<b>Post Name</b>	<b>Proposed Scheme</b>	<b>No. of Questions</b>	<b>Total Marks</b>	<b>Time Duration</b>	<b>Indicative Syllabus</b>
6	Lab Attendant Grade II	Subject knowledge of concerned post	60	60	60 Minutes	As mentioned in Annexure- 'A'

<b>S. No</b>	<b>Post Name</b>	<b>Proposed Scheme</b>	<b>No. of Questions</b>	<b>Total Marks</b>	<b>Time Duration</b>	<b>Indicative Syllabus</b>
7	Reader/Associate Professor	Subject knowledge of concerned post	100	100	60 Minutes	As given below

(A) Subject knowledge:-

1. Nursing Education
2. Advance Nursing Practice
3. Medical Surgical Nursing
4. Obstetric & Gynaecological Nursing
5. Child Health (Paediatric) Nursing
6. Mental Health (Psychiatric) Nursing
7. Community Health Nursing
8. Nursing Research & Statistics
9. Nursing Management
10. Cardio Vascular & Thoracic Nursing
11. Critical Care Nursing
12. Oncology Nursing

- 13. Neuroscience Nursing
- 14. Nephro-Urology Nursing
- 15. Orthopedic Nursing
- 16. Gastro Enterology Nursing

S. No	Post Name	Proposed Scheme	No. of Questions	Total Marks	Time Duration	Indicative Syllabus
8	Medical Social Worker	Subject knowledge of concerned post	100	100	60 Minutes	As given below

**a) Framework: Social Welfare:**

The concept of Social Welfare

Social Welfare: Concept, need and objectives

Philosophy of Social Welfare and Social work

Social welfare in historical perspective Changing concepts and practices of social welfare in relation to social, economic and industrial development

Changing political philosophy and its impact on social welfare

Social Welfare and related terms (1) Social Development (2) Social Planning and social administration (3) Social reform (4) Social Security (5) Social Policy (6) Social Action (7) Social justice (8) Social and welfare services (9) Social legislation (10) Human Rights

Professional Social work an Introduction. The concept of professional social work-alignment of scientific and humanitarian motives for promoting social welfare.

**b) Framework: Social Welfare:**

The basic principles and values of professional social work and their relationship to the values of Indian Society

Evolution of professional social work in UK, USA.

Evolution of Professional Social work in India.

Social work as a profession Nature and characteristics of a profession

The basic values and Principles of professional social work Professional status of Social work in India Code of ethics for social workers

Methods of Social Work Primary  
Methods of Social work Secondary methods of Social work  
Integrated approach of social work  
Interface between Professional and voluntary social work

**c) Psychology and Mental Health: Fundamentals:**

Mental Health & Psychology  
Psychology: Definitions and Fields  
Mental Health : Meaning, Definitions, Characteristics  
Normal & Abnormal Behaviour : Meaning, Characteristics  
Human Development : Heredity and Environment  
Meaning, Definition and scope of Mental Hygiene  
Characteristics and Importance of Mental Hygiene  
Aims of Mental Hygiene  
Principles of Mental Hygiene  
Programme of Mental Hygiene

**d) Developmental Sociology:**

Developmental Stages  
Developmental Stages I : Prenatal, Infancy  
Developmental Stages II : Babyhood, Childhood  
Developmental Stages III : Puberty, Adolescence, Adulthood.  
Developmental Stages III : Middle age, Old age.

**Personality Development**

1. Psycho-Sexual development theory: Sigmund Freud
2. Psycho- Social development theory: Erick Erickson
3. Defence Mechanism
4. Perspectives of Psychopathology Unit

**Social Psychology**

Nature and scope of social psychology  
Attitude: nature and measurement of attitude prejudice and discrimination



Communication: concept, methods, skills in communication, major obstacles  
Mass communication, public opinion, propaganda, fashion, social facilitation crowd behavior.

**e) Sociology :Theoretical Perspective**

Conceptual & Theoretical Perspectives to Understand Society

1. Society: Nature, Approaches, Functions, Theories of Society (Evolutionary, Cyclical, Conflict and Systems theories).
2. Social Group: Concept & Characteristics of Primary Group, Secondary Group, Reference Group.
3. Social Institutions: Family, Marriage, Kinship, Property (Present trends).
4. Culture: Concept of Culture, Traditions, Customs, Values and Norms

**Social System and Social Process of Contemporary Society**

1. Social System & Sub system: Structure & Function, Classification of System.
2. Social Structures: Status & Role.
3. Social Process: Meaning and kinds of Social Interaction, Socialization, Cooperation, Conflict, Assimilation, Social control.

**f) Sociology: Polity & Economy:**

1. State: Elements, Role and Functions.
2. Democratic government & process.
3. The nature of economic development, Classification of Developing Countries,
4. Meaning of Globalization, Liberalization and Privatization.

**Social Stratification and Social Change in Contemporary Society**

1. Social Stratification: Caste, Caste & Democracy, Tribes.
2. Social Change: Concept, Factors, Western theories.
3. Theories of Social Change in India: Sanskritization, Westernization, Modernization, Secularization.

**g) Problems of Contemporary Indian Society:**

1. Social Problem: Concept, Factors, Theories.
2. Poverty: Causes, Factors, Extent, Consequences, Theories, Measures, Impact on society.
3. Population Explosion: Causes, Factors, Extent, Consequences, Measures, Impact on society.
4. Unemployment: Causes, Factors, Extent, Consequences, Theories, Measures, Impact on society.
5. Environment pollution: Causes, Factors, Extent, Consequences, Theories, Measures, Impact on society.
6. Malnutrition: Causes, Factors, Extent, Consequences, Theories, Measures, Impact on society.
7. Positive and negative impact of Social Media (Internet, Face Book, Social Media, Television, Cinema, Mobile etc.)

**h) Social Work Research & Statistics:**

Research: Nature & Concept Nature and Characteristics of Scientific method and Social Phenomenon

Meaning and definition of Research Nature scope and importance of research

Types and Concepts used in Research Types of research: Historical, Descriptive, Analytical, Experimental, Interdisciplinary, Participative, action and evaluative research.

Concepts used in research: Variables, Attributes, Universe, Sample, Hypothesis, matching, Measurement.

Problem Formulation and Hypothesis Testing Problem formulation:

Identifying probable issues for research, selecting specific research issue, formulation of objectives, clarifying the objective. Concepts and relevance of Hypothesis formulation and testing: Level of Significance, Degree of Freedom, Type 1 Type 2 Error.

**i) Social Work Research & Statistics:**

Data Collection and Analysis

Methods of tools of data collection: Observation and Interview Schedule, Questionnaire, and secondary methods

of data collection.

Sampling design: Probability and non- probability Data processing and analysis, interpretation and report writing

Research Design Research design: Concept, Meaning and importance of research Design

Types of Research Design: Experimental Design: After only, Before-After, Ex-post facto experimental Design Non Experimental Design: Exploratory, Descriptive and Diagnostic

**j) Groups and Social works:**

Understanding Concepts of Group Work

Concept of Group and its importance in human life cycle, Types of Groups Concept.

Social Group Work as a method of Social Work

1. Theories and Models in Social Group Work
2. Values and Distinctive Principles of Social Group Work
3. Role of Group Worker
4. Social Group Work in Different fields
5. Group Work in Institutional settings
6. Understanding Individual in the Group Process and Group as a Totality

Social Group Work Process and Programmes

- 1 Steps or Process of Group Formation
2. Stages / Phases in Group Development
3. Factors affecting Group Development and Role of Social Worker in different Stages of Group Development
4. Concept and Importance of Programme in Group Work Practice
5. Programme Planning, Development and Implementation Process

Skills, Techniques, Recording and Evaluation in Social Group Work

1. Skills of Group Worker- For Group Development, Programme Planning, and Programme Implementation
2. Recording in Group Work: Principles and Types of Recording, Techniques of Recording Observation, Sociogram.

3. Evaluation in Group Work- Importance of Continuous evaluation in Group Work, Types and Methods of Evaluation

Group Process and Dynamics

1. Social processes in group work
2. Leadership and its development in group work process
3. Communication in Group
4. Group Dynamics:- Group Bond, Group- Conflict, Confrontation, Apathy and Group Control

S. No	Post Name	Proposed Scheme	No. of Questions	Total Marks	Time Duration	Indicative Syllabus
9	Hospital Attendant Gr. III (Nursing Orderly)	(A) Subject knowledge of concerned post (Hospital Services/Nursing) (B) General Intelligence & Reasoning (C) General Awareness (D) Quantitative aptitude (E) English Comprehension	30 25 20 20 05	100	60 Minutes	As given below

(A) Subject knowledge:- Questions of the level of certificate/diploma level covering broadly the following topics :-

1. Meeting the Basic Needs of a patient

**(a) Physical needs:**

- Comfort, rest, sleep and exercise
- Body mechanics- moving, lifting, transferring
- Position and posture maintenance
- Beds and Bed making
- Principles of bed making, types and care of bed linen
- Safety devices, restraints and splints'

**(b) Hygienic needs:**

- Personal and environmental hygiene

– Attendants role in maintaining personal and environmental hygiene

**(c) Elimination needs:**

- Problems- constipation and diarrhea, retention and incontinence of urine –
- Offering bed-pan, urinal.

**2. First Aid-** Definition, Aim and Importance, rules/general principles of First Aid, first aid in emergencies

**3. Procedures and Techniques in First Aid:**

- preparation of first aid kit
- dressing, bandaging and splinting, etc.,
- Transportation of the injured
- CPR and Basic Life Support.

(B) to (E) : Same as that of post at Sr. No 1.

**(These concepts should be dealt in brief, focusing on clinical relevance wherever applicable.)**

**PATHOLOGY**

**IMMUNO HAEMATOLOGY & BLOOD BANKING**

Introduction, Human blood group antigens, ABO blood group system and incompatibility, Rh blood group system and incompatibility, Technique of grouping and cross matching, Commb's test, Direct, Indirect, Blood Transfusion Procedure, Complication of blood transfusion, Blood Collection, Selection and Screening of donors., Collection of blood, Storage of blood, Cell separator and transfusion of various components of blood like Plasma and Platelet Separation, Organization, Operation and Administration of Blood Bank and anticoagulants.

**CLINICAL PATHOLOGY & HAEMATOLOGY**

Urine analysis, Physical, chemical, microscopic., Routine tests viz. Sugar, Albumin and Phosphates., Other tests viz. Bile salt, Bile pigment, Urobilin Ketone bodies, Chyle, Specific gravity, Total protein (Esbachs) etc., Faecal analysis for occult blood examination., Preparation of Seminal Fluid for analysis., Preparation of aspiration fluids., Ascitic fluid, Pleural fluid, CSF, Others, Introduction to haematology., Collection of blood sample and anticoagulants., Red Cell Counts, Haemocytometer and procedure for R.B.C. Count., RBC diluting Fluid, Calculation, Write Cell Count, Procedure for W.B.C count, WBC diluting fluid, Calculation, Differential white cell count., Morphology of write cell, Normal values, Romanosky Stains, Counting methods, Absolute Eosinophil Count Direct/Indirect smear examination., ESR, Westergren's, Wintrobe's, Factors affecting ESR, Importance and Limitation, Normal value and interpretation., Packed Cell Volume (Haematocrit), Macro and Micro method, Interpretation, Haemoglobin estimation, Colorimetric method, Sahali's method, Cyanmethaemoglobin method, Interpretation of result, Red Cell Indices, Calculation and importance of Reticulocyte count., Method-Interpretation, Sickle Cell Preparation, Osmotic fragility test- Interpretation, Estimation of G-6-PD, Principle of Electrophoresis, Preparation of bone marrow aspiration and trephine biopsy, Coagulation

test, Bleeding time, Whole blood coagulation time, Clot retraction test, Prothrombin time, Platelet count, Comments on peripheral smear., LE Cell Phenomenon.

## **HISTOTECHNOLOGY, CYTOLOGY, MUSEUM STUDY**

Introduction, Cell, Tissue and their function., Methods of examination of tissues and cells, Fixation of tissue: Classification of fixatives., Simple Fixatives and their properties. , Tissue processing : , Collection of specimen, Labeling and fixation , Dehydration , Clearing , Impregnation , Embedding, Paraffin block making , Section Cutting: , Microtomes and microtome knives – sharpening of knife, Microtome use – Honing, Stropping, Techniques of section cutting , Mounting of sections., Frozen section.  
(a) Staining :, Dyes and their properties , Theory of staining , Staining technique with haematoxylin and eosin., Mounting of sections , Common special stains – , Routine H & E, Meason Trichrome , Men – Geison , Reticulin, , PAS, Fe, Lipid, Mucicamine , Vencos for calcium , Special staining , Decalcification : , Fixation, Decalcification , Detection of end point, Neutralization and processing.  
(b) Exfoliative Cytology and Fine needle aspiration cytology: , Types of specimens and preservation. , Preparation and fixation of smears. , Papanicolaous staining technique/MCC staining/HE staining/. , Sex chromatin staining. , Nuscum Techniques. , Reception of specimen., Preparation of fixation , Preservation , Presentation

### **AUTOPSY TECHNIQUE:**

Assisting in autopsy, Preservation of organs and ,Processing of the tissue.  
Waste disposal and safety in laboratory.

## **PRACTICAL**

### **IMMUNO HAEMATOLOGY & BLOOD BANKING**

ABO-Blood Grouping : Slide technique,  
Cross matching, -Major Cross Matching -Minor Cross Matching,  
Rh.-Typing,  
Coomb's Test –Direct, Indirect ,  
Donor Screening and Selection, Identification, Recording, Grouping and typing of donor's blood., Drawing of blood – Asepsis, Measurement, Venipuncture, Collection., Blood, Preservation and Storage Recording the details and storage of blood, Maintenance, cleaning of various equipments used in the blood bank

## **CLINICAL PATHOLOGY & HAEMATOLOGY**

1. Analysis of Urine for routine and others tests.
2. Urine microscopic examination.
3. Faeces occult blood test.
4. Seminal fluid analysis.
5. Analysis of aspiration fluids.
6. Staining and examination of different smears.
7. Use of Microscope, care and Maintenance.
8. Haemoglobin estimation –Sahali's
9. Demonstration of colorimetric Hb estimation.
10. Total RBC Count.
11. Total Leucocyte Count.
12. Differential count of Leucocyte.
13. Reticulocyte
14. Total platelet count, Direct, Indirect
15. Absolute Eosnophil count, Direct , Indirect
16. Bleeding time and clotting time.
17. Examination of Blood Parasites., Malaria Parasite, Microfilaria
18. Prothromibin time-Demonstration
19. ESR-Westergren's&Wintrob's
20. POV (Haematocrit)
21. Sickle Cell Test
22. Osmotic Fragility Test
23. Estimation of G-6-PD
24. Electrophoresis Test
25. Comments' on peripheral smear
26. LE Cell phenomenon.

## **HISTOTECHNOLOGY, CYTOLOGY, MUSEUM STUDY**

Histotechnology and Cytology, Fixation, processing, embedding and section and , reparation of slides., Sharpening of the knife. ,



Preparation of fixatives and , decalcifying fluid. , Preparation of adhesives to fix the section to the slide. , Preparation and fixation of cytology smears and , Papanicolaou's staining techniques., MOG staining /HE staining. , Mounting.

## **MICROBIOLOGY**

### **GENERAL BACTERIOLOGY**

History of Microbiology, Microbes and their classification , Study of different , microscopes, Morphology of bacteria, Motional requirements of bacteria, Preparation and uses of culture media, Culture methods and identification of bacteria.

### **Sterilization and Disinfection**

Physical Chemical, Mechanical methods, Sterilization of media, syringe, glassware's etc., Safe disposal of contaminated media etc.  
Bio-Medical Waste Management

### **Common Laboratory equipments and uses**

1. Different microscopes, incubator, BOD incubator, Refrigerator, Deep Freeze,
2. Hot air oven, Autoclave, Inspissator, Bacterial Filters, Water bath, VDRI rotator, Centrifuge machine, Vacuum pump, Biosafety cabinets ELISA reader, etc

Anaerobic culture, Inoculation techniques, subculture and maintenance of stock culture. Isolation and identification of bacteria (Cultural characters biochemical reaction) serotyping etc. Antimicrobial susceptibility tests

### **SYSTEMIC BACTERIOLOGY**

More importance should be given to culture methods and identification of bacteria than other properties like Pathogenesis etc.

Cocci - Staphylococci, streptococci, Pneumococci, Gonococci, Meningococci.

Bacilli - Corynebacterium, Bacillus, Clostridium, Nonsporing anaerobes, Enterobacteriaceae, E. Coll, Klebsiella, Salmonella, Shigella, Proteus, Vibrio

- Pseudomonas, Mycobacterium (M. tuberculosis, M. Lepae), Basic idea on Actinomycetes, Rickettsiae, - Spirochetes

## **CLINICAL MICROBIOLOGY**

- Normal microbial flora of human body, Collection and transport of specimen
- Bacterimia, Pyaemia, Septicemia, Pyrexia of unknown origin (P.U.O)
- Meningitis, Food Poisoning , Respiratory Infection (Sore throat pneumonic, pulmonary Tuberculosis), Nosocomial Infections, Opportunistic Infections

## **MYCOLOGY**

- Classification of pathogenic Fungi, Morphology of Fungi, Laboratory diagnosis of Fungi (KOH prepn. Culture media and methods, LCB mount, etc.)
- Brief idea on Dermatophytes, Candia, Aspergillus, Cryptococcus and Opportunistic Fungi.

## **IMMUNOLOGY AND SEROLOGY**

Emphasis on principle and uses/application, Immunity –Basic principles and classification, Antigen, Antibody (Immunoglobulin's), Complement system, Antigen  
–Antibody reactions, Hypersensitivity- classification & different skin tests used for diagnosis., Immunodeficiency diseases including AIDS – in brief, Autoimmunity – Basic concept, Immuno-prophylaxis & Immunization schedule, Vaccines-classification & uses.

## **PARASITOLOGY**

- Introduction & classification of medically important parasites, Intestinal & Tissue protozoa (E.histolylica, Giardia Primary Amoebic meningo-encephalitis)
- Malaria parasite, Leishmanial parasites, Tapeworms, Flukes of liver and , Intestine, Intestinal nematodes, Filarial worms and other tissue nematodes

## **VIROLOGY**

- General Characters of viruses, Classification in brief and name of the diseases they produce., Hepatitis viruses, HIV, (Polio, Rabies, Rota, Measles, Dengue)
- Oncogenic viruses in brief, Collection and transport of virological specimens
- Laboratory diagnosis of viral infections (various methods of virus culture, serology etc.)

## **ANIMAL CARE**

- Care of sheep and procedure to draw blood from sheep., Handling, feeding and Breeding of laboratory animals.

## **PRACTICAL**

### **General Introduction-**

Safety measures in the laboratory,  
First Aid in Laboratory accidents and general precaution- any measures.  
Handling and care of microscopes.,  
Operation and maintenance of laboratory equipments, Anaerobic jar and other methods of anaerobic culture,  
Care and cleaning of all glassware (test tubes, slides petri dishes pipettes, beakers, Rashes, funnels, syringes etc),  
Collection & transport of clinical specimens (Blood CSF Urine, Stool, Bone marrow, Sputum, Swabs, Aspiration fluid etc).,  
Receipts, Labeling, recording and dispatching clinical specimens.,  
Keeping records after final computerization.,  
Conversant with S.I. unit system for reporting. , Conversant with Fundamental Chemistry, i.e. use of indicators, strength of a solution, percent solution, part-dilution, molar solution, normal solutions etc.

### **Various staining technique:-**

Simple stain, Gram's stain, Z.N. stain, Albert's stain, Negative stain, Spore stain, Neisser's stain, Lactophenol cotton blue staining for fungi, Leishman stain, Geimsa stain, Other special stain.

### **Wet preparations**

Hanging drop preparation,  
KoH preparation for fungi,  
Vaginal fluid examination,  
Isolation of bacteria in pure culture and Antibiotic sensitivity.,  
Identification of common bacteria by studying their morphology, cultural character, Biochemical reactions, slide agglutination and other tests.,  
Maintenance and preservation of stock culture. ,  
Study of fungi by wet preparation, staining, culture.

## **CLINICAL MICROBIOLOGY:-**

### **Approach to various clinical syndromes**

Collection transport and processing of various clinical specimens , i.e. blood, CSF urine swabs faeces, etc. For microbiological diagnosis.,Investigation of various common epidemics , Gastroenteritis, Cholera, Food poisoning, Meningitis , Encephalitis, P.U.O., Study of nosocomial infection.

Handling of automated instruments like used in bacteriology and serology laboratory.

### **PARASITOLOGY**

Collection, transportation, preservation of faecal materials for examination of parasites.

a) Saline and iodine preparation of faeces for identification of Ova Cysts, RBC, Pus cells, Macrophage bacterial and fungal study

b) Concentration techniques for examination of faeces.

Blood smear examination for malaria parasite L.D. bodies, micro filarial etc.

### **VIROLOGY –**

Embryonated egg inoculation,

Tissue culture techniques –

Serological tests for diagnosis of common viral diseases,

HIV surveillance lab and ELISA / Rapid tests.

Basic molecular techniques like conventional PCR and RT PCR.

### **SEROLOGY –**

Widal test and preparation of Salmonella antigens, VDRI Test, Latest agglutination tests for (RA, CRP, ASO, Pregnancy Test, Australia Antigen, Toxoplasmosis)

ELISA , Immunofluorescence, RIA Test, Gel diffusion techniques and ,Immuno electro phoresis, Detection of Antigen / Antibody for Malarial (ICT), Optimal Test, Assay of immunoglobulins

### **Diagnostic skin tests-**

- Tuberculin test (mantoux test), Lepromin test, Casoni's test, Other tests.

## **BIOCHEMISTRY**

### **Theory**

1. Chemistry of
  - a) Carbohydrates
  - b) Fat
  - c) Proteins & Amino acid
2. Water & Fat soluble Vitamin, Plasma protein.
3. Enzymes (Classification, factors regulating, institution 2 clinical application)
4. Buffers, Molarity, indicators, Radioisotopes, Radiation hazard, RSA.
5. Overview of Iron, Calcium, Iodine, Flourine.
6. Overview of Nucleic Acids & Uric Acid.

### **Practical**

1. Laboratory safety, Glass ware cleaning.
2. Pipettes, record maintenance.
3. Tests for Carbohydrate.
4. Tests for Proteins & Amino Acids.
5. Tests for Iron, Calcium, Iodine, Flourine, etc
6. Physiological Urine.

### **CLINICAL BIOCHEMISTRY**

#### **ORGAN FUNCTION TESTS**

1. Endocrine Function Testes – Thyroid Function Tests
  2. Biochemical tests of CSF-
  3. Renal Function Tests-
    - 24 hr collection, preservation
    - Physical characteristics, clearance tests.
  4. Liver function tests.
  5. Gastric Function Tests
  6. Pancreatic Function Tests
- Serum Amylase, Serum Trypsin, Serum Lipase,.

#### **CLINICAL ENZYMOLOGY & ORGANIZATION**

##### **Fundamentals of analytical bio-chemistry and instrumentation.**

1. Clinical enzymology – Diagnostic enzymes, Iso-zymes.
2. Fundamentals of Analytical Bio-chemistry & Instrumentation

- Analytical balance
- Centrifuges
- Colorimeter and spectrophotometer
- Flame photometer
- Auto analyzers
- Chromatography
- Electrophoresis

**ORAL AND PRACTICAL**

List of Practical's in Clinical Bio-chemistry

Determination in Blood/Serum of

- Glucose Tolerance Tests
- Urea
- Creatinine
- Uric Acid
- Cholesterol, Triglycerides, HDL Cholesterol, Lipid Profile
- Total serum protein and albumin
- T3, T4, TSH

**STATISTICS & BASIC COMPUTER TECHNIQUES**

**TABULATIONS:** Simple Tables, Frequency Distribution Tables

**DIAGRAMS:** Bar Diagrams, Histogram, Line Diagram, Pie Diagram

**STATISTICAL AVERAGES:** Mean, Median, Mode

**MEASURES OF DISPESION:** Normal Curve, Range, Standard Deviation, Standard Error.

**TESTS OF SIGNIFICANCE:** 't' Test

**Use of computer in Laboratory**