Recommendation of the Committee constituted by the University to consider the further course of action to be taken up in view of the adoption DoPT OM No.39020/01/2013-Estt(B)-Part dated 29.12.2015 regarding discontinuation of interviews for Junior level posts

A. Composition :

The Committee was constituted vide Notification No. Estab IV/047/2016/01 dated 26.05.2016 to consider the issue of adoption of the OM of DOPT No. 39020/01/2013-Estt(B)-Part dated 29.12.2015 regarding the discontinuation of interview as an element in the recruitment process at Junior level and other attendant procedural issues.

The members of the committee were:

1. Prof. Devesh K. Sinha - Chairperson

2. Sh. Jay Chanda, JR (Estab.) - Member

3. Dr. Sarabjit Kaur - Member

Following officials, who are the stakeholders on the subject matters, were co-opted as members by the committee:

- 1. Prof Suneera Kasliwal, Head and Dean, Music and Fine Arts.
- 2. Dr. D V Singh, University Librarian
- 3. Shri Anupam Shrivastav, University Engineer
- 4. Shri H H Baa, Joint Registrar. (E-NT)
- 5. Shri B Raja Rajan, Joint Registrar (Colleges)
- 6. Dr. K. Ratnabali, Deputy Dean (Legal Affairs)

Deputy Registrar (Recruitment) assisted the Committee in its deliberations.

B. Schedule of conduct of meetings:

First meeting held on 05.09.2016 at 3.00 pm. in F.O. Committee Room.

Second meeting held on 06.09.2016 at 3:00 p.m. in F.O. Committee Room.

Third meeting held on 16.11.2016 at 3:00 p.m. in Committee Room of Dean of Colleges.

Fourth meeting held on 29.12.2016 at 2:00 p.m. in Committee Room of Dean of Colleges.

Fifth Meeting held on 10.02.2017 at 3.00 pm in the Committee room of Dean of Colleges.

Sixth Meeting held on 13.02.2017 at 2.00 pm in the Committee room of Dean of Colleges.

C. Subject Matter of Deliberation:

Formulation of new Scheme of Examination for recruitment and promotion for junior level non-teaching posts upto the level of Group B (Non-gazetted) posts in line with the DoP&T OM No. No.39020/01/2013-Estt(B)-Part Dated 29.12.2015.

D. <u>Documents considered by the Committee:</u>

- The existing scheme of examination for various cadres upto the level of Group B (Non-gazetted), which are covered by the DoP&T OM No. No.39020/01/2013-Estt(B)-Part Dated 29.12.2015.
- DoP&T OM No. No.39020/01/2013-Estt(B)-Part Dated 29.12.2015.
- University OM No. Estab IV/047/2016/01/RR-OM dated:02.12.2016
 where by the said DoPT OM was adopted.
- Existing Recruitment Rules for Non-Teaching Employees of the University.
- Scheme of Examination of other autonomous bodies among others.

E. Proceedings of the Committee:

At the outset, the Deputy Registrar (Recruitment) briefly presented the critical issues to be deliberated upon by the Committee in view of the DoPT OM No.39020/01/2013-Estt(B)-Part dated 29.12.2015 regarding discontinuation of interviews for Junior level posts, which has been communicated by MHRD vide communication F.No.19-50/2015-Desk-U dated 22.12.2015 and the UGC vide communication No. 16-40/2015(CU) dated 14.01.2016. The said OM has been adopted by the University vide OM No.Estab IV/047/2016/01/RR-OM dated:02.12.2016.

The Committee was also apprised that the adoption of the DoPT OM dated 29.12.2015 implies formulation of new Scheme of Examination for recruitment/promotion of the concerned junior level posts as the interview component is required to be excluded from the process in cases where it existed.

During the initial course of deliberations, the members felt that the subject matter of the deliberation had a larger implication and it was essential to involve the stakeholders in the processes involved. Accordingly, following additional members were co-opted by the committee:

- 1. Prof Suneera Kasliwal, Head and Dean, Music and Fine Arts.
- 2. Dr. D V Singh, University Librarian
- 3. Shri Anupam Shrivastav, University Engineer
- 4. Shri H H Baa, Joint Registrar. (E-NT)
- 5. Shri B Raja Rajan, Joint Registrar (Colleges)
- 6. Dr. K. Ratnabali, Deputy Dean (Legal Affairs)

The committee examined the existing recruitment rules and scheme of examination for direct recruitment and promotion for junior level posts upto the level of group B (Non-gazetted) for the following posts/cadres:

- Ministerial Posts
- Technical Posts
- Library Posts
- Engineering Posts
- Posts in Department of Music
- Miscellaneous Posts not covered above

After due deliberation, the following Schemes of examinations for the above posts were recommended by the Committee:

E.1 Ministerial Posts:

E.1.1 Scheme of Examination for Direct Recruitment to the post of Section Officer

The following shall be the Scheme of Examination, components of written test and its syllabus for recruitment to the post of **Section Officer** by direct recruitment:

A. Scheme of the Examination:

Written Test		
Paper – I	Time: 2 hours*	Max. marks:
MCQ Type		300 marks (150 questions)
Paper-II	Time: 3 hours*	Max. marks:
Descriptive Type		200 marks
Total Marks 500 marks		

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

B. Test components:

		DURATION: 2 hours	
Paper-I	TEST COMPONENTS	NO. OF QUESTIONS	MARKS
(i)	General awareness	30	60
(ii)	Reasoning ability	40	80
(iii)	Mathematical ability	40	80
(iv)	Test of Language English or Hindi	40	80
	TOTAL	150	300

		DURATION: 3hours
Paper-II		MARKS
1 aper-11	Descriptive Type	200
	TOTAL	200

C. Syllabus:

Paper - I:

(i) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and its neighbouring countries,

especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.

- (ii) Reasoning Ability: The syllabus includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iii) Mathematical Ability: The test will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

(iv) Test of English or Hindi:

In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

<u>Paper - II:</u>

<u>Descriptive Type:</u> The questions will be designed to test the ability of the candidate's knowledge and awareness about the subjects detailed below:

Topic	Marks allocated
Basic knowledge of the Constitution of India	30 marks (3 questions x 10 marks)
and working of its political system	Each question to be answered in
	100 words
Basic knowledge of the administration in	20 marks (2 questions x 10 marks)
institutions of Higher Education	Each question to be answered in
-	100 words
Knowledge and application of Office	30 marks (3 questions x 10 marks)
Procedures, Rules & Regulations	Each question to be answered in
-	100 words
English/Hindi with special reference to skill in	20 marks (2 questions x 10 marks)
noting/drafting	Each question to be answered in
	100 words
Situation Test essay, where the candidates	25 marks (200 words)
reaction would be sought on a given situation	
test case	
Knowledge of Computers with special	25 marks
reference to knowledge of word processing,	
data analysis packages	
Essay	50 marks (500 words)

- 1. The question paper would be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination, which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I and Paper II separately shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. Answer script of Paper-II of a candidate would be evaluated, only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in Paper I to the tune of $1/4^{\text{th}}$ of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify both the Papers I and II separately. The Merit shall be drawn on the basis of combined scores of both the papers.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.1.2 Scheme of Examination for Direct Recruitment to the post of Senior Assistant

The following shall be the Scheme of Examination, components of written test and its syllabus for recruitment to the post of **Senior Assistant** by direct recruitment:

Written Test			
Paper – I	Time: 2 hours*	Max. marks:	
MCQ Type		300 marks (150 questions)	
Paper-II	Time: 3 hours*	Max. marks:	
Descriptive Type		200 marks	
Total Marks	500 marks		

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

B. Test components:

		DURATION: 2 hours	
Paper-I	TEST COMPONENTS	NO. OF QUESTIONS	MARKS
(i)	General awareness	30	60
(ii)	Reasoning ability	40	80
(iii)	Mathematical ability	40	80
(iv)	Test of Language English or Hindi	40	80
	TOTAL	150	300

		DURATION: 3hours
Paper-II	TEST COMPONENTS	MARKS
1 aper-11	Descriptive Type	200
	TOTAL	200

C. Syllabus:

Paper - I:

- (i) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and its neighbouring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (ii) Reasoning Ability: The syllabus includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iii) Mathematical Ability: The test will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

(iv) Test of English or Hindi:

In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

<u>Paper - II:</u>

<u>Descriptive Type:</u> The questions will be designed to test the ability of the candidate's knowledge and awareness about the subjects detailed below:

Topic	Marks allocated
Basic knowledge of the Constitution of India	30 marks (3 questions x 10 marks)
and working of its political system	Each question to be answered in
	100 words
Basic knowledge of the administration in	20 marks (2 questions x 10 marks)
institutions of Higher Education	Each question to be answered in
	100 words
Knowledge and application of Office	30 marks (3 questions x 10 marks)
Procedures, Rules & Regulations	Each question to be answered in
	100 words
English/Hindi with special reference to skill in	20 marks (2 questions x 10 marks)
noting/drafting	Each question to be answered in
	100 words
Situation Test essay, where the candidates	25 marks (200 words)
reaction would be sought on a given situation	
test case	
Knowledge of Computers with special	25 marks
reference to knowledge of word processing,	
data analysis packages	
Essay	50 marks (500 words)

- 1. The question paper would be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination, which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I and Paper II separately shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. Answer script of Paper-II of a candidate would be evaluated, only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in Paper I to the tune of $1/4^{th}$ of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify both the Papers I and II separately. The Merit shall be drawn on the basis of combined scores of both the papers.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:

- a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
- b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
- c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.1.3 Scheme of Examination for Direct Recruitment to the post of Assistant

The following shall be the scheme of Examination, components of written test and its syllabus for recruitment to the post of **Assistant** by direct recruitment:

A. Scheme of the Examination:

Written Test			
	Type of Examination	Time:	Max. marks allowed:
Paper-I	MCQ Type	2 hours*	300 marks (150 questions)
Paper-II	Descriptive Type	3 hours*	150
Total Marks			450

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

B. Test components:

		DURATION	N: 2 hours
Paper-I	TEST COMPONENTS	NO. OF QUESTIONS	MARKS
(i)	General awareness	30	60
(ii)	Reasoning ability	40	80
(iii)	Mathematical ability	40	80
(iv)	Test of Language English or Hindi	40	80
	TOTAL	150	300

	TEST COMPONENTS	DURATION: 2 hours
_	TEST COMPONENTS	MARKS
Paper-II	Descriptive Type	150
	TOTAL	150

C. Syllabus:

Paper - I:

- (i) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and its neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (ii) Reasoning Ability: The syllabus includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iii) Mathematical Ability: The test will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

(iv) Test of English or Hindi:

In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

Paper - II:

Descriptive Type: The questions will be designed to test the ability of the candidate's knowledge and awareness about the subjects detailed below:

Topic	Marks allocated
Basic knowledge of the Constitution of India and	30 marks (3 questions x 10 marks)
working of its political system	Each question to be answered in 100 words
Basic knowledge of the administration in	20 marks (2 questions x 10 marks)
institutions of Higher Education	Each question to be answered in 100 words
Knowledge and application of Office Procedures,	30 marks (3 questions x 10 marks)
Rules & Regulations	Each question to be answered in 100 words
English/Hindi with special reference to skill in	20 marks (2 questions x 10 marks)
noting/drafting	Each question to be answered in 100
	words
Situation Test essay, where the candidate's reaction	25 marks (200 words)
would be sought on a given situation test case	
Knowledge of Computers with special reference to	25 marks
knowledge of word processing, data analysis	
packages	

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/ examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I and Paper II separately shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PWD category.
- 4. Answer script of Paper-II of a candidate would be evaluated, only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify both the Paper I and Paper II separately. The Merit shall be drawn on the basis of combined scores of the two papers.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.1.4 Scheme of Examination for Direct Recruitment to the Post of Junior Assistant

The following shall be the scheme of Examination, components of written test and its syllabus for recruitment to the post of **Junior Assistant and equivalent** by direct recruitment:

Written Test					
	Type of Examination Time:* Max marks:				
Paper-I MCQ Type 3 hours 2		200 (200 questions)			
Paper-IIEssay & Comprehension test1 hour100		100			
Total Marks	Total Marks 300				

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

B. Test components:

		DURATION	DURATION: 3 hours	
Paper-I	TEST COMPONENTS	NO. OF QUESTIONS	MARKS	
(i)	General awareness	50	50	
(ii)	Reasoning ability	50	50	
(iii)	Mathematical ability	50	50	
(iv)	Language English or Hindi	50	50	
	TOTAL	200	200	

	TEST COMPONENTS	DURATION: 1 hour	
D 11		MARKS	
Paper-II	Essay, comprehension & letter writing	100	
	TOTAL	100	

SKILL	TEST COMPONENTS	DETAILS
TEST	On spot typing test	Qualifying speed shall be at least 40 words per minute, which will be tested on a computer (PC).*

^{*}PwD candidates for whom complete exemption for type test is provided as per guidelines issued by Central Government, will be exempt from the skill test.

C. Syllabus:

Paper I:

- (i) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (ii) Reasoning Ability: The syllabus includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.

(iii) Mathematical Ability: The test will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

(iv) Test of English or Hindi:

In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

Paper – II:

Essay, comprehension & letter writing: This test is meant for testing the applicability and correct usage of the language, where the candidates would be assessed through essay writing, comprehension and letter writing, situation test analysis etc.

Skill Test:

The typing test shall be a skill test, which shall be qualifying in nature and no additional credits for the same shall be allocated.

Note:

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I and Paper II separately shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, separately. The Merit shall be drawn on the basis of combined scores of Paper I and Paper II only.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.

c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.1.5 Scheme of Examination for Direct Recruitment for the post of MTS

The following shall be the scheme of examination, components of written test and its syllabus etc. for the post of **MTS**

(The recruitment at this level is required to be through outsourcing. However, following schemes is suggested for application if required in special circumstances)

A. Scheme of Examination:

Written Test			
Paper – I (MCQ Type) Time: 2 hrs.* Max. Marks:			
(100 questions)		200 marks	
Total Marks 200 marks			

*15 minutes extra per hour would be given to VH and Cerebral Palsy candidates.

		DURATION: 2 hours	
Objective Type (MCQ)	TEST COMPONENTS	NO. OF QUESTIO NS	MARK S
(i)	General awareness	25	50
(ii)	Reasoning ability	25	50
(iii)	Mathematical ability	25	50
(iv)	Test of Language English or Hindi	25	50
	TOTAL	100	200

B. Syllabus:

- (i) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (ii) Reasoning Ability: The syllabus includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination,

observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.

- (iii) Mathematical Ability: The test will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.
- (iv) Test of English or Hindi: In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

Note:

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for written test will be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be negative marking for wrong answers in Written test to the tune of 1/4th of marks allocated per question.
- 5. Merit shall be drawn only for candidates who qualify the written test.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots

E.1.6 Scheme of Examination for Limited Departmental Examination for the post of Section Officer

The following shall be the scheme of examination, components of written test and its syllabus etc. for the post of **Section Officer** through limited departmental examinations.

	TEST COMPONENTS (02 Hours)	MARKS
(i)	Basic Knowledge of Constitution of India and Delhi	30

	TOTAL	200
	knowledge of word processing, data analysis packages	
(iv)	Knowledge of Computers with special reference to	30
(iii)	Skills in noting and drafting	40
(11)	& Regulations relevant to the University system	
(ii)	Knowledge and application of Office Procedures, Rules	100
	other attendant matters	
	University Act, Statutes, Ordinances, Regulations and	

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The minimum qualifying marks will be overall 40% for the unreserved posts and 35% for the reserved posts (i.e. for SC/ST/PwD category as applicable).
- 3. The level of the questions will be as per the work profile of the post concerned for which the test is being conducted.
- 4. The APAR and eligibility conditions of the successful candidates will be scrutinized by a committee of Officers comprising of the following:
 - Officer Incharge of the Establishment Non-Teaching
 - Officer Incharge of the Recruitment Section
 - Officer Incharge of College Branch
 - Officer Incharge of the Vigilance Section.
- 5. A panel shall be created on the basis of the written exam and due vetting by the committee detailed above, which shall be valid for a period of one year or till the time the number of posts is filled on the basis of available names from the panel, whichever is earlier.
- 6. The test will be held every year/once in two years depending upon the number of vacancies in a year. In case there are no vacancies in a particular year, no test will be held.

E.1.7 Scheme of Examination for Limited Departmental Examination for the post of Senior Assistant.

The following shall be the scheme of examination, components of written test and its syllabus etc. for the post of **Senior Assistant** through limited departmental examinations.

	TEST COMPONENTS (02 Hours)	MARKS
(i)	Basic Knowledge of Constitution of India and Delhi	30
(i)	University Act, Statutes, Ordinances, Regulations and	

	other attendant matters	
(ii)	Knowledge and application of Office Procedures, Rules &	100
(11)	Regulations relevant to the University system	
(iii)	Skills in noting and drafting	40
(iv)	Knowledge of Computers with special reference to	30
	knowledge of word processing, data analysis packages	
	TOTAL	200

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The minimum qualifying marks will be overall 40% for the unreserved posts and 35% for the reserved posts (i.e. for SC/ST/PwD category as applicable).
- 3. The level of the questions will be as per the work profile of the post concerned for which the test is being conducted.
- 4. The APAR and eligibility conditions of the successful candidates will be scrutinized by a committee of Officers comprising of the following:
 - Officer Incharge of the Establishment Non-Teaching
 - Officer Incharge of the Recruitment Section
 - Officer Incharge of College Branch
 - Officer Incharge of the Vigilance Section.
 - Section Officers of the respective Establishment and Recruitment Sections.
- 5. A panel shall be created on the basis of the written exam and due vetting by the committee detailed above, which shall be valid for a period of one year or till the time the number of posts is filled on the basis of available names from the panel, whichever is earlier.
- 6. The test will be held every year/once in two years depending upon the number of vacancies in a year. In case there are no vacancies in a particular year, no test will be held.

E.1.8 Scheme of Examination for Limited Departmental Examination for the post of Assistant.

The following shall be the scheme of examination, components of written test and its syllabus etc. for the post of **Assistant** through limited departmental examinations.

	TEST COMPONENTS (02 Hours)	MARKS
(i)	Basic Knowledge of Constitution of India and Delhi	30
(1)	University Act, Statutes, Ordinances, Regulations and	

	other attendant matters	
(ii)	Knowledge and application of Office Procedures, Rules	100
(11)	& Regulations relevant to the University system	
(iii)	Skills in noting and drafting	40
(iv)	Knowledge of Computers with special reference to	30
	knowledge of word processing, data analysis packages	
	TOTAL	200

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The minimum qualifying marks will be overall 40% for the Unreserved posts and 35% for the reserved posts (i.e. for SC/ST/PwD category as applicable).
- 3. The level of the questions will be as per the work profile of the post concerned for which the test is being conducted.
- 4. The APAR and eligibility conditions of the successful candidates will be scrutinized by a committee of Officers comprising of the following:
 - Officer Incharge of the Establishment Non-Teaching
 - Officer Incharge of the Recruitment Section
 - Officer Incharge of College Branch
 - Officer Incharge of the Vigilance Section.
 - Section Officers of the respective Establishment and Recruitment Sections.
- 5. A panel shall be created on the basis of the written exam and due vetting by the committee detailed above, which shall be valid for a period of one year or till the time the number of posts is filled on the basis of available names from the panel, whichever is earlier.
- 6. The test will be held every year/once in two years depending on the number of vacancies in a year. In case there are no vacancies in a particular year, no test will be held.

E.1.9 Scheme of Examination for Limited Departmental Examination for the post of Junior Assistant.

The following shall be the scheme of examination, components of written test and its syllabus etc. for the post of **Junior Assistant** through limited departmental exams.

Written Test				
Type of Examination Time: Max. marks allowed:				
Paper-IMCQ Type2hours100 marks				

			(100 questions)
Paper-II	Essay in English or Hindi	1 hour	100
Total Marks			200

B. Test components:

Paper-I	TEST COMPONENTS	DURATION: 2 hours
		MARKS
(i)	General Awareness including Numerical Ability	20
(ii)	Basic Knowledge of Constitution of India, Delhi University Act, Statutes, Ordinances	20
(iii)	Application of Office Procedures, Rules & Regulations	20
(iv)	Skill in noting and drafting	20
(v)	General English and Hindi	20
	TOTAL	100

Paper-II	TEST COMPONENTS	DURATION: 1 hour	
		MARKS	
	Essay in English or Hindi	100	
	TOTAL	100	

SKILL	TEST COMPONENTS	DETAILS
TEST	On spot typing test*	Qualifying speed shall be 30 words
1201		per minute, which will tested on a
		computer (PC).

^{*}PwD candidates for whom complete exemption for type test is provided as per guidelines issued by Central Government, will be exempt from the skill test.

Exemption from qualifying the typing test:

The genuine attempts for exemption from qualifying the typing test on computer after attaining the age of 45 years for the purpose of promotion to the post of Junior Assistant under 25% quota reserved for Multi Tasking Staff (erstwhile Group-D employees) will be determined as follows-

"A minimum typing speed of 15 w.p.m on computer in any two attempt out of the total attempts made, may be considered as 'Genuine Attempt'."

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The minimum qualifying marks will be overall 40% for the Unreserved posts and 35% for the reserved posts (i.e. for SC/ST/PwD category as applicable).
- 3. The level of the questions will be as per the work profile of the post concerned for which the test in being conducted.
- 4. The APAR and eligibility conditions of the successful candidates will be scrutinized by a committee of Officers comprising of the following:
 - Officer Incharge of the Establishment Non-Teaching
 - Officer Incharge of the Recruitment Section
 - Officer Incharge of College Branch
 - Officer Incharge of the Vigilance Section.
 - Section Officers of the respective Establishment and Recruitment Sections.
- 5. A panel shall be created on the basis of the written exam and due vetting by the committee detailed above, which shall be valid for a period of one year or till the time the number of posts is filled on the basis of available names from the panel, whichever is earlier.
- 6. The test will be held every year/once in two years depending upon the number of vacancies in a year. In case there are no vacancies in a particular year, no test will be held.

E.2 Technical Posts:

E.2.1 Scheme of Examination for Direct Recruitment for the post of SENIOR TECHNICAL ASSISTANT

The following shall be the scheme of examination, components of written test and its syllabus for the post of **SENIOR TECHNICAL ASSISTANT**

Paper -I (MCQ)	Time:	Max. Marks:
Test of General Science and awareness	2 hrs.*	300 marks
(Level-Post graduate)		(150 questions)
Paper – II	Time:	Max. Marks:
Subject specific laboratory based practical	3 hrs.*	150 marks
questions		
Skill Test	Time:	The test will be of 50
Skills pertaining to subject matter of the	1 hr.	marks. To qualify, the
concerned post would be assessed through a skill		candidate should
test to be conducted by the concerned department		obtain 30 marks.
under the direct supervision of HOD/Dean of		This will, however, be
concerned Faculty/Principal of College.		only qualifying in
The skill test shall be conducted in a manner		nature.
which will elicit the ability of the candidate in		
handling various scientific/ humanities		
experiments/tests, as the case may be in a typical		
laboratory setup of the concerned department.		
This skill test is aimed to check the practical		
knowledge of the candidate in terms of various		
Do's and Don'ts in a laboratory related to		
various hazards, precautions etc.		
Total Marks (300+150)		450 marks

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

		DURATION: 2 hours		
Paper – I	TEST COMPONENTS	NO. OF QUESTIONS	MARKS	
(i)	General science#	60	120	
(ii)	General awareness	20	40	
(iii)	Reasoning ability	20	40	
(iv)	Mathematical ability	30	60	
(v)	Test of Language English or Hindi	20	40	
	TOTAL	150	300	

B. Detailed Syllabus for Paper I:

(i) General science: Questions will be designed to test the knowledge of science, laboratory equipment and lab practice. The questions may be from all the spheres of science, however, emphasis would be on the field of science pertaining to the department for which the candidate is being assessed. In case of appointment in departments under the Faculty of Arts/Social Sciences/Mathematical Sciences questions pertaining to the subject matter of the concerned department may also be included.

(#The candidate has to secure 50% marks in section (i) of this paper, 5% relaxation will be provided for SC/ST/OBC/PwD)

- (ii) General awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (iii) Reasoning ability: The syllabus of General Intelligence includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iv) Mathematical ability: The test of Arithmetical and Numerical Ability will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

(v) Test of Language English or Test of Language Hindi:

In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

C. Paper - II: Subject specific laboratory based practical questions. The paper will cover the following areas:

Topic	Marks allocated
Subject specific laboratory based	Section 1 - MCQ
practical questions	100 marks (50 questions)
 Knowledge of Computers with 	Section 2 – Descriptive
special reference to knowledge of	50 marks (5 questions)
word processing, data analysis packages	

D. Skill Test:

The skill test shall be qualifying in nature and no additional credits for the same shall be allocated. This skill test is aimed to check the practical knowledge of the candidate in terms of various Do's and Don'ts in a laboratory related to various hazards, precautions etc.

Note:

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of examination/degree/diploma which is defined as the minimum eligibility for the respective post.
- 3. The minimum overall qualifying marks for Paper I and Paper II shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.

 However, section (ii) (iii) (iv) & (v) of the paper I will be evaluated only if a
 - However, section (ii), (iii), (iv) & (v) of the paper I will be evaluated only if a candidate obtains 50% marks in the section (i) of the paper, 5% relaxation will be provided for SC/ST/OBC/PwD.
- 4. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in MCQ based questions to the tune of $1/4^{th}$ of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, separately. The Merit shall be drawn on the basis of combined scores of Paper I and Paper II only.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.2.2 Scheme of Examination for Direct Recruitment for the post of TECHNICAL ASSISTANT

The following shall be the scheme of examination, components of written test and its syllabus etc. for the post of **TECHNICAL ASSISTANT**

Written Test			
Paper -I (MCQ) Time: 2 hrs.* Max. Marks:			
Test of General Science and awareness		300 marks	
(Level-Post graduate)		(150 questions)	

Paper – II Subject specific laboratory based practical questions	Time: 3 hrs.*	Max. Marks: 150 marks
Skill Test Skills pertaining to subject matter of the concerned post would be assessed through a skill test to be conducted by the concerned department under the direct supervision of HOD/Dean of concerned Faculty/Principal of College. The skill test shall be conducted in a manner which will elicit the ability of the candidate in handling various scientific/ humanities experiments/tests, as the case may be in a typical laboratory setup of the concerned department. This skill test is aimed to check the practical knowledge of the candidate in terms of various Do's and Don'ts in a laboratory related to various hazards, precautions etc.	Time: 1 hr.	The test will be of 50 marks. To qualify, the candidate should obtain 30 marks. This will, however, be only qualifying in nature.
Total Marks (300+150)		450 marks

^{*15} minutes extra per hour would be given to Visual Handicapped and Cerebral Palsy candidates.

D I		DURATION: 2 hours		
Paper – I	TEST COMPONENTS	NO. OF	MARKS	
		QUESTIONS		
(i)	General Science#	60	120	
(ii)	General Awareness	20	40	
(iii)	Reasoning Ability	20	40	
(iv)	Arithmetical & Numerical Ability	30	60	
(v)	Test of Language English or Hindi	20	40	
	TOTAL	150	300	

B. Detailed Syllabus for Paper I:

(i) General Science: Questions will be designed to test the knowledge of science, laboratory equipment and lab practice. The questions may be from all the spheres of science, however, emphasis would be on the field of science pertaining to the department for which the candidate is being assessed. In case of appointment in departments under the Faculty of Arts/Social Sciences/Mathematical Sciences questions pertaining to the subject matter of the concerned department may also be included.

(#The candidate has to secure 50% marks in section (i) of this paper, 5% relaxation will be provided for SC/ST/OBC/PwD)

- (ii) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and its neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (iii) Reasoning Ability: The syllabus of General Intelligence includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- **(iv) Mathematical Ability:** The test of Arithmetical and Numerical Ability will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

(v) Test of Language English or Test of Language Hindi:

In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

C. Paper - II: Subject specific laboratory based practical questions.

Topic	Marks allocated
Subject specific laboratory based	Section 1 - MCQ
practical questions	100 marks (50 questions)
Knowledge of Computers with	Section 2 – Descriptive
special reference to knowledge of	50 marks (5 questions)
word processing, data analysis packages	

D. Skill Test:

The skill test shall be qualifying in nature and no additional credits for the same shall be allocated.

This skill test is aimed to check the practical knowledge of the candidate in terms of various Do's and Don'ts in a laboratory related to various hazards, precautions etc.

Note:

1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.

- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum overall qualifying marks for Paper I and Paper II shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
 - However, section (ii), (iii), (iv) & (v) of the paper I will be evaluated, only if a candidate obtains 50% marks in the section (i) of the paper, 5% relaxation will be provided for SC/ST/OBC/PwD.
- 4. Answer script of Paper-II of a candidate would be evaluated only if, the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in MCQ based questions to the tune of $1/4^{th}$ of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, separately. The Merit shall be drawn on the basis of combined scores of Paper I and Paper II only.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.2.3 Scheme of Examination for Direct Recruitment for the post of LABORATORY ASSISTANT

The following shall be the scheme of examination, components of written test and its syllabus for the post of **LABORATORY ASSISTANT**

Written Test			
Paper – I (MCQ)	Time: 2 hrs.*	Max. Marks:	
General Science & Awareness		300 marks	
(150 questions)		(150 questions)	
Paper – II	Time: 3 hrs.*	Max. Marks:	
Subject specific laboratory based		150 marks	
practical questions			
Skill Test	Time:	The test will be of 50 marks.	
Skills pertaining to subject matter of the	1 hr.	To qualify the candidate	
concerned post would be assessed		should obtain 30 marks.	
through a skill test to be conducted by the		This will, however, be only	
concerned department under the direct		qualifying in nature.	

Total Marks (300+150)	450 marks
various hazards, precautions etc.	
and Don'ts in a laboratory related to	
of the candidate in terms of various Do's	
is aimed to check the practical knowledge	
the concerned department. This skill test	
may be in a typical laboratory setup of	
humanities experiments/tests, as the case	
candidate in handling various scientific/	
manner which will elicit the ability of the	
The skill test shall be conducted in a	
Faculty/Principal of College.	
supervision of HOD/Dean of concerned	

*15 minutes extra per minutes would be given to Visually Handicapped and Cerebral Palsy candidates.

		DURATION	N: 2 hours
Paper – I	TEST COMPONENTS	NO. OF MARK	
		QUESTIONS	
(i)	General Science#	60	120
(ii)	General Awareness	20	40
(iii)	Reasoning Ability	20	40
(iv)	Mathematical Ability	30	60
(v)	Test of Language English or	20	40
	Hindi		
	TOTAL	150	300

B. Detailed Syllabus for Paper I:

(i) General Science: Questions will be designed to test the knowledge of science, laboratory equipment and lab practice. The questions may be from all the spheres of science, however, emphasis would be on the field of science pertaining to the department for which the candidate is being assessed. In case of appointment in departments under the Faculty of Arts/Social Sciences/Mathematical Sciences questions pertaining to the subject matter of the concerned department may also be included.

(#The candidate has to secure 50% marks in section (i) of this paper, 5% relaxation will be provided for SC/ST/OBC/PwD)

(ii) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian

Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.

- (iii) Reasoning Ability: The syllabus of General Intelligence includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iv) Mathematical Ability: The test of Arithmetical and Numerical Ability will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

(v) Test of Language English or Test of Language Hindi:

In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

C. Paper - II: Subject specific laboratory based practical questions. The paper will cover the following areas:

Topic	Marks allocated
Subject specific laboratory based	Section 1 - MCQ
practical questions	100 marks (50 questions)
 Knowledge of Computers with 	Section 2 – Descriptive
special reference to knowledge of	50 marks (5 questions)
word processing, data analysis packages	

D. Skill Test:

The skill test shall be qualifying in nature and no additional credits for the same shall be allocated.

This skill test is aimed to check the practical knowledge of the candidate in terms of various Do's and Don'ts in a laboratory related to various hazards, precautions etc.

Note:

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.

- 3. The minimum overall qualifying marks for Paper I and Paper II shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
 - However, section (ii), (iii), (iv) & (v) of the paper I will be evaluated only if a candidate obtains 50% marks in the section (i) of the paper, 5% relaxation will be provided for SC/ST/OBC/PwD.
- 4. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in MCQ based questions to the tune of $1/4^{th}$ of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, separately. The Merit shall be drawn on the basis of combined scores of Paper I and Paper II only.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.2.4 Scheme of Examination for Direct Recruitment for the post of MTS LABORATORY

The following shall be the scheme of examination, components of written test and its syllabus for the post of MTS LABORATORY

Written Test			
Objective Type (MCQ)	Time: 3 hrs.*	Max. Marks:	
General Science and Awareness		300 marks	
(150 questions)			
Total Marks 300 marks			

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

01.1		DURATION: 3 hours		
Objective Type (MCQ)	TEST COMPONENTS	NO. OF QUESTIO NS	MARKS	
(i)	General Science#	60	120	
(ii)	General Awareness	20	40	

(iii)	Reasoning Ability	20	40
(iv)	Mathematical Ability	30	60
(v)	Test of Language English or Hindi	20	40
	TOTAL	150	300

B. Detailed Syllabus:

(i) General Science: Questions will be designed to test the knowledge of science, laboratory equipment and lab practice. The questions may be from all the spheres of science, however, emphasis would be on the field of science pertaining to the department for which the candidate is being assessed. In case of appointment in departments under the Faculty of Arts/Social Sciences/Mathematical Sciences questions pertaining to the subject matter of the concerned department may also be included.

(#The candidate has to secure 50% marks in section (i) of this paper, 5% relaxation will be provided for SC/ST/OBC/PwD)

- (ii) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (iii) Reasoning Ability: The syllabus of General Intelligence includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iv) Mathematical Ability: The test of Arithmetical and Numerical Ability will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

(v) Test of Language English or Test of Language Hindi:

In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

Note:

1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.

- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum overall qualifying marks for written test shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
 - However, section (ii), (iii), (iv) & (v) of the paper will be evaluated only if, a candidate obtains 50% marks in the section (i) of the paper, 5% relaxation will be provided for SC/ST/OBC/PwD.
- 4. There shall be negative marking for wrong answers in MCQ based questions to the tune of $1/4^{th}$ of marks allocated per question.
- 5. Merit shall be drawn only for candidates who qualify written test.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.2.5 Scheme of Examination for Limited Departmental Examination for the post of SENIOR TECHNICAL ASSISTANT

The following shall be the scheme of examination, components of written test and its syllabus etc. for the post of **SENIOR TECHNICAL ASSISTANT** through limited departmental examination.

Paper I (MCQ)	Time: 2 hrs.	Max. Marks allowed:	
General Awareness (50 marks)		100 + 50 marks	
General Awareness pertaining to Lab			
functioning of the specific subject area			
Knowledge of Computers (50			
Marks)			
Paper II			
Lab based practical test (50 marks)			
(level- graduate)			
Service Record		Max. Marks allowed:	
50 marks		50 marks	
Total Marks (150+50)		200 marks	

B. Paper I:

General Awareness: Multiple choice questions will be asked from routinely used equipment, techniques/methodologies in the teaching and research laboratories of Physics, Chemistry, Botany, Zoology, Biochemistry, Microbiology, Environmental Biology, Biomedical Science, Geology, Anthropology and Electronic Science and Computer Science Departments.

In case of appointment in departments under the Faculty of Arts/Social Sciences/Mathematical Sciences questions pertaining to the subject matter of the concerned department may also be included.

Knowledge of Computers with special reference to knowledge of word processing, data analysis packages.

C. Paper II:

Lab based practical test would be conducted in the concerned lab under the supervision of HOD of the concerned Department/Principal of College.

Note:

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The minimum qualifying marks will be overall 40% for the Unreserved posts and 35% for the reserved posts (ie.,for SC/ST/PwD category as applicable).
- 3. The level of the questions will be as per the work profile of the post concerned for which the test in being conducted.
- 4. The APAR and eligibility conditions of the successful candidates will be scrutinized by a committee of Officers comprising of the following:
 - Officer Incharge of the Establishment Non-Teaching
 - Officer Incharge of the Recruitment Section
 - Officer Incharge of College Branch
 - Officer Incharge of the Vigilance Section.
 - Section Officers of the respective Establishment and Recruitment Sections.
- 5. A panel shall be created on the basis of the written exam and due vetting by the committee detailed above, which shall be valid for a period of one year or till the time the number of posts is filled on the basis of available names from the panel, whichever is earlier.
- 6. The test will be held every year/once in two years depending on the number of vacancies any year. In case there is no vacancy in a particular year, no test will be held.

E.2.6 Scheme of Examination for Limited Departmental Examination for the post of TECHNICAL ASSISTANT

The following shall be the scheme of examination, components of written test and its syllabus etc. for the post of **TECHNICAL ASSISTANT** through limited departmental exams.

A. Scheme of Examination:

Paper I (MCQ)	Time: 2	Max. Marks allowed:
General Awareness (50 marks)	hrs.	100 + 50 marks
General Awareness pertaining to Lab		
functioning of the specific subject area		
Knowledge of Computers (50 Marks)		
Paper II		
Lab based practical test (50 marks)		
(level- class XII)		
Service Record		Max. Marks allowed:
50 marks		50 marks
Total Marks (150+50) 200 marks		

B. Paper I:

General Awareness: Multiple choice questions will be asked from routinely used equipment, techniques/methodologies in the teaching and research laboratories of Physics, Chemistry, Botany, Zoology, Biochemistry, Microbiology, Environmental Biology, Biomedical Science, Geology, Anthropology and Electronic Science and Computer Science Departments.

In case of appointment in departments under the Faculty of Arts/Social Sciences/Mathematical Sciences questions pertaining to the subject matter of the concerned department may also be included.

Knowledge of Computers with special reference to knowledge of word processing, data analysis packages.

C. Paper II:

Lab based practical test would be conducted in the concerned lab under the supervision of HOD of the concerned Department/Principal of College.

Note:

1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.

- 2. The minimum qualifying marks will be overall 40% for the Unreserved posts and 35% for the reserved posts (i.e. for SC/ST/PwD category as applicable).
- 3. The level of the questions will be as per the work profile of the post concerned for which the test in being conducted.
- 4. The APAR and eligibility conditions of the successful candidates will be scrutinized by a committee of Officers comprising of the following:
 - Officer Incharge of the Establishment Non-Teaching
 - Officer Incharge of the Recruitment Section
 - Officer Incharge of College Branch
 - Officer Incharge of the Vigilance Section.
 - Section Officers of the respective Establishment and Recruitment Sections.
- 5. A panel shall be created on the basis of the written exam and due vetting by the committee detailed above, which shall be valid for a period of one year or till the time the number of posts is filled on the basis of available names from the panel, whichever is earlier.
- 6. The test will be held every year/once in two years depending on the number of vacancies any year. In case there is no vacancy in a particular year, no test will be held.

E.2.7 Scheme of Examination for Limited Departmental Examination for the post of LABORATORY ASSISTANT

The following shall be the scheme of examination, components of written test and its syllabus etc. for the post of **LABORATORY ASSISTANT** through limited departmental exams.

A. Scheme of Examination:

Paper I (MCQ)	Time: 2 hrs.	Max. Marks allowed:
General Awareness (50 marks)		100 + 50 marks
General Awareness pertaining to Lab		
functioning of the specific subject area		
Knowledge of Computers (50		
Marks)		
Paper II		
Lab based practical test (50 marks)		
(level- class X)		
Service Record		Max. Marks allowed:
50 marks		50 marks
Total Marks (150+50)		200 marks

B. Paper I:

General Awareness: Multiple choice questions will be asked from routinely used equipment, techniques/methodologies in the teaching and research laboratories of

Physics, Chemistry, Botany, Zoology, Biochemistry, Microbiology, Environmental Biology, Biomedical Science, Geology, Anthropology and Electronic Science and Computer Science Departments.

In case of appointment in departments under the Faculty of Arts/Social Sciences/Mathematical Sciences questions pertaining to the subject matter of the concerned department may also be included.

Knowledge of Computers with special reference to knowledge of word processing, data analysis packages.

C. Paper II:

Lab based practical test would be conducted in the concerned lab under the supervision of HOD of the concerned Department/Principal of College.

Note:

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The minimum qualifying marks will be overall 40% for the Unreserved posts and 35% for the reserved posts (ie.,for SC/ST/PwD category as applicable).
- 3. The level of the questions will be as per the work profile of the post concerned for which the test in being conducted.
- 4. The APAR and eligibility conditions of the successful candidates will be scrutinized by a committee of Officers comprising of the following:
 - Officer Incharge of the Establishment Non-Teaching
 - Officer Incharge of the Recruitment Section
 - Officer Incharge of College Branch
 - Officer Incharge of the Vigilance Section.
 - Section Officers of the respective Establishment and Recruitment Sections.
- 5. A panel shall be created on the basis of the written exam and due vetting by the committee detailed above, which shall be valid for a period of one year or till the time the number of posts is filled on the basis of available names from the panel, whichever is earlier.
- 6. The test will be held every year/once in two years depending on the number of vacancies any year. In case there is no vacancy in a particular year, no test will be held.

E.3 <u>Library Posts:</u>

E.3.1 Scheme of Examination for Direct Recruitment to the post of Professional Assistant

The following shall be the scheme of Examination. Components of written test and its syllabus for recruitment to the post of Professional Assistant by direct recruitment:

Paper -I (MCQ)	Time: 2 hrs.*	Max. Marks:
Library Aptitude, General Awareness etc.		300 marks
(150 questions)		(150 questions)
Paper – II	Time: 3 hrs.*	Max. Marks:
Library System etc.		150 marks
Skill Test	Time: 1 hrs.	The test will be of 50
Skills pertaining to subject matter of the		marks. To qualify the
concerned post would be assessed		candidate should
through a skill test to be conducted by the		obtain 25 marks.
concerned department/institution under		This will however be
the direct supervision of University		only qualifying in
Librarian, Deputy Librarian, College		nature.
Librarian/or equivalent rank.		
The skill test shall be conducted in a		
manner to check the practical knowledge		
of the candidate in handling various		
processes associated with Library's		
functioning.		
Total Marks (300+150)		450 marks

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

		DURATION: 2 hours		
Paper – I	TEST COMPONENTS	NO. OF	MARKS	
		QUESTIONS		
(i)	Library Aptitude#	50	100	
(ii)	General Awareness	25	50	
(iii)	Reasoning Ability	25	50	
(iv)	Mathematical Ability	25	50	
(v)	Test of Language English or Hindi	25	50	
	TOTAL	150	300	

B. Detailed Syllabus for Paper I:

(i) Library Aptitude: Questions will be designed to test the knowledge and awareness on Library Information Science and recent development in the field of Library Science. The questions may be from all the spheres of library science.

(#The candidate has to secure 50% marks in section (i) of this paper, 5% relaxation will be provided for SC/ST/OBC/PwD)

- (ii) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (iii) Reasoning Ability: The syllabus of General Intelligence includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iv) Mathematical Ability: The test of Arithmetical and Numerical Ability will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.
- (v) Test of Language English or Test of Language Hindi: In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.
- **C. Paper II**: The questions will be designed to test the ability of the candidate's knowledge and awareness on Library and Information Science and recent development in the field and on the following subjects.

Topic	Marks allocated
 Knowledge and application of Library and 	Section 1 - MCQ
Information Science Procedures, rules & Regulations.	100 marks (50 questions)
• Knowledge of Computers with special reference	Section 2 – Descriptive
to knowledge of Library Software Packages of	50 marks (5 questions)
Word Processing, Data Analysis Packages.	

D. Skill Test:

The skill test shall be qualifying in nature and no additional credits for the same shall be allocated.

The skill test shall be conducted in a manner to check the practical knowledge of the candidate in handling various processes associated with Library's functioning.

The candidates may be tested for his/her skills in:

- Search in electronic data bases(online)
- Knowledge of specialized, open source application software for libraries like Digital Library Software etc.
- knowledge of any Indian/Foreign language as opted by the candidate from the list given below:

Arabic, Persian, Urdu, Sindhi, Tamil, Telugu, Malyalam, Kannad, Odiya, Bengali, Assamese, Chinese, Japanese, Korean, French, German, Spanish and Russian.

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum overall qualifying marks for Paper I and Paper II shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
 - However, section (ii), (iii), (iv) & (v) of the paper will be evaluated only if a candidate obtains 50% marks in the section (i) of the paper, 5% relaxation will be provided for SC/ST/OBC/PwD.
- 4. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, if any, separately. The Merit shall be drawn on the basis of combined scores of Paper I and Paper II only.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.3.2 Scheme of Examination for Direct Recruitment to the post of Semi Professional Assistant

The following shall be the scheme of Examination, components of written test and its syllabus etc. for recruitment to the post of Semi Professional Assistant by direct recruitment.

A. Scheme of the Examination:

Written Test			
Paper -I (MCQ)	Time: 2 hrs.*	Max. Marks:	
Library Aptitude, General Awareness etc.		300 marks	
(150 questions)		(150 questions)	
Paper – II	Time: 3 hrs.*	Max. Marks:	
Library Operations etc.		150 marks	
Total Marks (300+150)		450 marks	

^{*15} minutes extra per minute would be given to Visual Handicapped and Cerebral Palsy candidates.

		DURATION: 2 hours	
Paper – I	TEST COMPONENTS	NO. OF QUESTIONS	MARKS
(i)	Library Aptitude#	50	100
(ii)	General Awareness	25	50
(iii)	Reasoning Ability	25	50
(iv)	Mathematics Ability	25	50
(v)	Test of Language English or Hindi	25	50
	TOTAL	150	300

B. Detailed Syllabus for Paper I:

(i) Library Aptitude: Questions will be designed to test the knowledge and awareness on Library Information Science and recent development in the field of Library Science. The questions may be from all the spheres of library science.

(#The candidate has to secure 50% marks in section (i) of this paper, 5% relaxation will be provided for SC/ST/OBC/PwD)

(ii) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.

- (iii) Reasoning Ability: The syllabus of General Intelligence includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iv) Mathematical Ability: The test of Arithmetical and Numerical Ability will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.
- (v) Test of Language English or Test of Language Hindi: In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.
- **C. Paper II**: The questions will be designed to test the ability of the candidate's knowledge and awareness on Library and Information Science and recent development in the field and on the following subjects.

Topic	Marks allocated
 Knowledge and application of Library and 	Section 1 - MCQ
Information Science Procedures, rules & Regulations.	100 marks (50 questions)
• Knowledge of Computers with special reference	Section 2 – Descriptive
to knowledge of Library Software Packages of	50 marks (5 questions)
Word Processing, Data Analysis Packages.	

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum overall qualifying marks for Paper I and Paper II shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
 - However, section (ii), (iii), (iv) & (v) of the paper I will be evaluated only if a candidate obtains 50% marks in the section (i) of the paper, 5% relaxation will be provided for SC/ST/OBC/PwD.
- 4. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify Paper I and Paper II, separately. The Merit shall be drawn on the basis of combined scores of the two papers.

- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.3.3 Scheme of Examination for Direct Recruitment to the post of Library Assistant

The following shall be the scheme of Examination, components of written test and its syllabus for recruitment to the post of Library Assistant by the direct recruitment:

A. Scheme of Examination:

Written Test			
Paper -I (MCQ)	Time: 2 hrs.*	Max. Marks:	
Library Aptitude, General Awareness etc.		300 marks	
(150 questions)		(150 questions)	
Paper – II	Time: 3 hrs.*	Max. Marks:	
Library Automation & Library Awareness		150 marks	
Total Marks (300+150)		450 marks	

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

		DURATION: 2 hours	
Paper – I	TEST COMPONENTS	NO. OF QUESTIONS	MARKS
(i)	Library Aptitude#	50	100
(ii)	General Awareness	25	50
(iii)	Reasoning Ability	25	50
(iv)	Mathematical Ability	25	50
(v)	Test of Language English or Hindi	25	50
	TOTAL	150	300

B. Detailed Syllabus for Paper I:

(i) Library Aptitude: Questions will be designed to test the knowledge and awareness on Library Information Science and recent development in the field of Library Science. The questions may be from all the spheres of library science.

(#The candidate has to secure 50% marks in section (i) of this paper, 5% relaxation will be provided for SC/ST/OBC/PwD)

- (ii) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (iii) Reasoning Ability: The syllabus of General Intelligence includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iv) Mathematical Ability: The test of Arithmetical and Numerical Ability will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.
- (v) Test of Language English or Test of Language Hindi: In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

C. Paper - II: Library Automation & Library Awareness.

The questions will be designed to test the ability of the candidate's knowledge and awareness on Library and Information Science and recent development in the field and on the following subjects.

Topic	Marks allocated
 Knowledge and application of Library and 	Section 1 - MCQ
Information Science Procedures, rules & Regulations.	100 marks (50 questions)
• Knowledge of Computers with special reference	Section 2 – Descriptive
to knowledge of Library Software Packages of	50 marks (5 questions)
Word Processing, Data Analysis Packages.	

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum overall qualifying marks for Paper I and Paper II shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.

However, section (ii), (iii), (iv) & (v) of the paper I will be evaluated only if a candidate obtains 50% marks in the section (i) of the paper, 5% relaxation will be provided for SC/ST/OBC/PwD.

- 4. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify Paper I and Paper II, separately. The Merit shall be drawn on the basis of combined scores of the two papers.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.3.4 Scheme of Examination for Direct Recruitment to the post of MTS Library

The following shall be the scheme of Examination, components of written test and its syllabus for recruitment to the post of MTS Library by the direct recruitment:

A. Scheme of Examination:

Written Test		
Objective Type (MCQ) Library Aptitude, General Awareness etc. (150 questions)	Time: 3 hrs.*	Max. Marks: 300 marks
Total Marks 300 marks		

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

Objective		DURATION: 3 hours	
Type (MCQ)	TEST COMPONENTS	NO. OF	MARKS
, ,		QUESTIONS	
(i)	Library Aptitude#	50	100
(ii)	General Awareness	25	50
(iii)	Reasoning Ability	25	50
(iv)	Mathematical Ability	25	50
(v)	Test of Language English or Hindi	25	50
	TOTAL	150	300

B. Detailed Syllabus:

(i) Library Aptitude: Questions will be designed to test the knowledge and awareness on Library Information Science and recent development in the field of Library Science. The questions may be from all the spheres of library science.

(#The candidate has to secure 50% marks in section (i) of this paper, 5% relaxation will be provided for SC/ST/OBC/PwD)

- (ii) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (iii) Reasoning Ability: The syllabus of General Intelligence includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iv) Mathematical Ability: The test of Arithmetical and Numerical Ability will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.
- (v) Test of Language English or Test of Language Hindi: In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum overall qualifying marks for the written test shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
 - However, section (ii), (iii), (iv) & (v) of the paper will be evaluated only if a candidate obtains 50% marks in the section (i) of the paper, 5% relaxation will be provided for SC/ST/OBC/PwD.
- 4. There shall be negative marking for wrong answers in written test to the tune of 1/4th of marks allocated per question.
- 5. Merit shall be drawn only for candidates who qualify written test.

- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.3.5 Scheme of Examination for Limited Departmental Test for Promotion of MTS Library and erstwhile Library Attendant to Library Assistant

The following shall be the scheme of Examination, components of written test and its syllabus etc. for promotion of Library Attendant to Library Assistant through limited departmental exams:

An **objective type** paper of two hours (02 hrs.) duration with maximum of 100 marks, which include Library questions.

The **Multiple Choice Questions** shall judge the knowledge of Library Science for promotion to post of Library Assistant.

Out of **100 questions**, 40 questions should be related to the duties of Library Assistant, with options from Acquisition, processing & circulation, specific post for which the promotions are to be considered by the department, 20 questions of General Knowledge, 20 questions of English and 20 questions of Mathematical abilities.

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The minimum qualifying marks will be overall 40% for the Unreserved posts and 35% for the reserved posts (ie.,for SC/ST/PwD category as applicable).
- 3. The level of the questions will be as per the work profile of the post concerned for which the test in being conducted.
- 4. The APAR and eligibility conditions of the successful candidates will be scrutinized by a committee of Officers comprising of the following:
 - Officer Incharge of the Establishment Non-Teaching
 - Officer Incharge of the Recruitment Section
 - Officer Incharge of College Branch
 - Officer Incharge of the Vigilance Section.
 - Section Officers of the respective Establishment and Recruitment Sections.

- 5. A panel shall be created on the basis of the written exam and due vetting by the committee detailed above, which shall be valid for a period of one year or till the time the number of posts is filled on the basis of available names from the panel, whichever is earlier.
- 6. The test will be held every year/once in two years depending on the number of vacancies any year. In case there is no vacancy in a particular year, no test will be held.

E.4 Engineering Posts

E.4.1 Scheme of Examination for Direct Recruitment to the post of Assistant Engineer (Civil)

The following shall be the scheme of Examination, components of written test and its syllabus etc. for recruitment to the post of **Assistant Engineer (Civil)** by the direct recruitment:

A. Scheme of the Examination:

Written Test			
Paper – I	Time: 1 hours	Max. marks allowed:	
MCQ Type		100 marks	
(Questions will be of B.Tech./B.E. or			
equivalent level)			
Paper-II	Time: 2 hours	Max. marks	
(Descriptive Type)		Allowed: 100 marks	
(Questions will be of B.Tech./B.E. or			
equivalent level)			
Total Marks		200 marks	

Syllabus for the above papers will be as follows:

1. Surveying

Fundamental concepts: Classification of Surveys; Chain Surveying; Compass Surveying; Levelling and Contouring; Theodolite Surveying; Tachometry; Curves; Introduction and fundamental concepts of electronic measuring instruments – EDM, Total Station, GIS & GPS

2. Construction materials & Practice

Properties and uses of construction materials – Stones, Bricks, tiles, Sand, Cement, Timber, Plastics, Glass, Asbestos, Paints, Distempers, Enamels and Varnishes; Preparation of Cement Mortar For various works

Classification of Buildings as per NBC, Site investigation for foundation as per NBC – Trial Pit and auger boring, classification of foundations, construction of spread footing and well foundation; Stone and Brick masonry types and principles of construction; Doors and Windows – types fittings and fastenings, types and functions of Lintels, Sunshades and Roofs, Flooring – Construction and types of material; Types of Stairs; Scaffolding; Types of Plastering, Pointing painting and white / Colour Wash.

3. Engineering Mechanics and Strength of materials

Forces- types of forces, Parallelogram, Triangle and Polygon Law of Forces, Lami's theorem; Centre of Gravity and moment of Inertia; Simple stresses and strains, Hooke's law –stress strain diagram, working strength elastic constants, Poisson's ratio, Relationship

between elastic constants, compound rods, temperature stresses, strain energy, proof resilience, impact loading; Shear force and bending moment diagrams for simply supported, over hanging and cantilever beams, relation between intensity of loading, Shear force and bending moment; Theory of simple bending, modulus of section, moment of resistance, distribution of shear stress in rectangular, circular and I- Sections; Deflection in cantilever and simply supported beams subjected to simple loading; columns and struts - Euler's and Rankine's formulae, Slenderness ratio, simple built-up columns; Analysis of dam and retaining walls; Simple plane and pin-jointed trusses, Stresses by method of joints and method of sections.

4. Hydraulics

Properties of fluids, fluid pressure and its measurement; Types of flows, energies in fluid motion, Bernoulli's theorem and its applications – venture metre, pitot tube; Orifice and mouthpiece; Notches and weirs; Flow through pipes, hydraulic gradient line and total energy line, laminar and turbulent flow in pipes – Reynolds number, measurement of velocity; open channels; Water turbines - classification, centrifugal and reciprocating pumps; layout of hydroelectric power plant.

5. Quantity Surveying

Abstract estimate, detailed estimate – centerline and long & short wall method, various items of Civil Engineering works as per Indian Standards; General Specifications – earth work, brick / stone masonry in cement mortar, RCC, plastering in cement mortar, Floor finishes with ceramic tiles and marbles, white washing. Colour washing; Standard schedule of rates, lead and lift preparation of lead statement; Computation of earth work – Mid-ordinate, mean Sectional area, Trapezoidal method, Prismoidal Rule; Approximate estimate-Plinth area and cubic rate estimate.

6. Design of Structures (RCC and Steel)

RCC structures: Design philosophies- principles and concepts of working stress method and limit state method, loads and permissible stresses, IS specification, analysis and design-rectangular beam, slab, T-beam, column, footing and stair case.

Steel Structures: Properties of steel section, loads and permissible stresses, IS specifications, Analysis and design- welded joints, beam, column, base tension member; Design of roof truss.

7. Irrigation Engineering

Definition, Duty, delta, base period, rainfall and its measurement, factors affecting runoff methods of computing maximum flood discharge; Classification of head works, component parts of a weir and barrage, factors influencing selection of site –reservoirs and dams; Classification of canals, canal lining, cross drainage works; Soil erosion, water logging, soil water plant relationship; Necessity of irrigation – advantages and disadvantages, irrigation methods.

8. Environmental Engineering

Basics of ecosystem, water supply scheme; Sources of water; Conveyance of water – pipes, joints and laying; Testing of water, drinking water standards; Treatment of water, Distribution of water; Water supply connection to a building.

Quantity of sewage, surface drains, design of sewers running half full, limiting velocities; laying of sewers, sewage, sewer appurtenances; Collection of sewage samples, characteristics of domestic and industrial sewage-BOD, COD; Sewage treatment, septic tank & soak pit, sewage disposal-dilution and sewage farming; House drainage arrangements in buildings; solid waste-collection and disposal; Air Pollution-sources, effects and controlling methods.

9. Transportation Engineering

Alignment of roads-plain and hilly terrain, surveys; Cross section of road structure, width of pavement, Chamber, Gradient, Super elevation, Transition curves, horizontal and vertical alignment; Pavement making, traffic signs, traffic islands.

Types of soil, classification of soil-Textural IS Classification, physical properties-plasticity, cohesion, consolidation, compaction, permeability, compressibility, soil moisture content, specific gravity, density; Bearing capacity of soil

- 1. The minimum qualifying marks for Paper I and Paper II separately shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 2. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 3. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 4. The question paper shall be in English but the applicant will have the option to respond either in English or Hindi. However, the same medium of language must be used throughout.
- 5. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, if any, separately. The Merit shall be drawn on the basis of combined scores of the two papers.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.4.2 Scheme of Examination for Direct Recruitment to the post of Assistant Engineer (Electrical)

The following shall be the scheme of Examination, components of written test and its syllabus etc. for recruitment to the post of **Assistant Engineer** (**Electrical**) by the direct recruitment:

A. Scheme of the Examination:

Written Test			
Paper – I	Time: 1 hours	Max. marks allowed:	
MCQ Type		100 marks	
(Questions will be of			
B.Tech./B.E. or equivalent			
level)			
Paper-II	Time: 2 hours	Max. marks	
Descriptive Type		Allowed: 100 marks	
(Questions will be of			
B.Tech./B.E. or equivalent			
level)			
Total Marks		200 marks	

Syllabus for the above papers will be as follows:

1. Electrical Circuits

KVL, KCL, node and mesh analysis, star/delta transformation, electromagnetic induction, mutual induction, ac fundamentals, transient response of dc and ac networks, sinusoidal steady state analysis, resonance ideal current and voltage sources, Network theorems, two-port networks, three phase circuits, power measurement in 3-phase circuits.

2. Electrical Measurements

Bridges and potentio meters, PMMC, moving coil, moving iron, dynamometer, induction type measuring instruments, measurement of voltage, current, power, energy, power factor, digital volt-meters, phase, frequency measurements, Q-meters, oscilloscopes

3. Control Systems

Principles of feedback control systems, transfer function, block diagram reduction, signal flow graph, Mason's, gain formula, time response, steady state error, Routh, Nyquist criterion, Bode plot, root locus, compensation design

4. Analog and digital electronics

Characteristics of p-n diode, Zener diode, BJT, FET, amplifiers, biasing, low frequency and high frequency equivalent circuits, frequency response, feedback amplifiers, oscillators, combinational and sequential logic circuits, multiplexer, Schmitt trigger, A/D, D/A converters, basic of 8-bit, 16 bit microprocessors, architecture, programming, interfacing

5. Electrical Machines

Single phase transformer, equivalent circuit, phasor diagram, tests, regulation, efficiency, 3-phase transformers, connections, parallel operation, auto transformer, DC machines: types, armature windings, characteristics of dc generators and motors, armature reaction, commutation, starting and speed control of dc motors

3-phase induction motors: principle of operation, types of characteristics, computation of performance, equivalent circuit, starting and speed control

Single phase induction motors: types, methods of starting, characteristics

Synchronous Machines: emf equation, armature reaction, equivalent circuit, regulation, parallel operation, load sharing, operation with infinite busbars, synchronous motor, synchronous condenser, V and Inverted V curves

6. Power Systems

Basic power generation concepts, transmission line models and performance, Under-ground cables, string insulators, corona, distribution systems, per unit quantities, bus impedance and admittance matrices, load flow studies, voltage control, power factor correction, economic operation, symmetrical components, fault analysis, principles of over current, differential, and distance protection, protection of alternators, protection of transformers, protection of transmission lines, protection from lightning, neutral grounding, circuit breakers, types and operation of CBs, system stability concept, swing curves, equal area criterion

7. Utilization

Electric heating, resistance heating, induction heating, dielectric heating, Electric traction, lighting calculation, types of lamps and their working

8. Power Electronics and Drives

SCR, IGBT, MOSFET, Static and dynamic characteristics, triggering circuits, phase control rectifier, bridge rectifiers, principles of dc-dc converters, inverters, basic principles and characteristics of adjustable speed dc and ac drives

- 1. The minimum qualifying marks for Paper I and Paper II separately shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 2. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 3. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 4. The question paper shall be in English but the applicant will have the option to respond either in English or Hindi. However, the same medium of language must be used throughout.
- 5. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, if any, separately. The Merit shall be drawn on the basis of combined scores of the two papers.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:

- a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
- b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
- c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.4.3 Scheme of Examination for Direct Recruitment to the post of Junior Engineer (Civil)

The following shall be the scheme of Examination, components of written test and its syllabus etc. for recruitment to the post of **Junior Engineer (Civil)** by the direct recruitment:

A. Scheme of the Examination:

Written Test			
Paper – I	Time: 1 hours	Max. marks allowed:	
MCQ Type		100 marks	
(Questions will be of Diploma			
or equivalent level)			
Paper-II	Time: 2 hours	Max. marks	
Descriptive Type		Allowed: 100 marks	
(Questions will be of Diploma			
or equivalent level)			
Total Marks		200 marks	

Syllabus for the above papers will be as follows:

1. Surveying

Fundamental concepts: Classification of Surveys; Chain Surveying; Compass Surveying; Levelling and Contouring; Theodolite Surveying; Tachometry; Curves; Introduction and fundamental concepts of electronic measuring instruments – EDM, Total Station, GIS &GPS

2. Construction materials &Practice

Properties and uses of construction materials – Stones, Bricks, tiles, Sand, Cement, Timber, Plastics, Glass, Asbestos, Paints, Distempers, Enamels and Varnishes; Preparation of Cement Mortar For various works

Classification of Buildings as per NBC, Site investigation for foundation as per NBC – Trial Pit and auger boring, classification of foundations, construction of spread footing and well foundation; Stone and Brick masonry types and principles of construction; Doors and Windows – types fittings and fastenings, types and functions of Lintels, Sunshades and

Roofs, Flooring – Construction and types of material; Types of Stairs; Scaffolding; Types of Plastering, Pointing painting and white / Colour Wash.

3. Engineering Mechanics and Strength of materials

Forces- types of forces, Parallelogram, Triangle and Polygon Law of Forces, Lami's theorem; Centre of Gravity and moment of Inertia; Simple stresses and strains, Hooke's law –stress strain diagram, working strength elastic constants, Poisson's ratio, Relationship between elastic constants, compound rods, temperature stresses, strain energy, proof resilience, impact loading; Shear force and bending moment diagrams for simply supported, over hanging and cantilever beams, relation between intensity of loading, Shear force and bending moment; Theory of simple bending, modulus of section, moment of resistance, distribution of shear stress in rectangular, circular and I- Sections; Deflection in cantilever and simply supported beams subjected to simple loading; columns and struts - Euler's and Rankine's formulae, Slenderness ratio, simple built-up columns; Analysis of dam and retaining walls; Simple plane and pin-jointed trusses, Stresses by method of joints and method of sections.

4. Hydraulics

Properties of fluids, fluid pressure and its measurement; Types of flows, energies in fluid motion, Bernoulli's theorem and its applications – venture metre, pitot tube; Orifice and mouthpiece; Notches and weirs; Flow through pipes, hydraulic gradient line and total energy line, laminar and turbulent flow in pipes – Reynolds number, measurement of velocity; open channels; Water turbines - classification, centrifugal and reciprocating pumps; layout of hydroelectric power plant.

5. Quantity Surveying

Abstract estimate, detailed estimate – centerline and long & short wall method, various items of Civil Engineering works as per Indian Standards; General Specifications – earth work, brick / stone masonry in cement mortar, RCC, plastering in cement mortar, Floor finishes with ceramic tiles and marbles, white washing. Colour washing; Standard schedule of rates, lead and lift preparation of lead statement; Computation of earth work – Mid-ordinate, mean Sectional area, Trapezoidal method, Prismoidal Rule; Approximate estimate-Plinth area and cubic rate estimate.

6.Design of Structures (RCC and Steel)

RCC structures: Design philosophies- principles and concepts of working stress method and limit state method, loads and permissible stresses, IS specification, analysis and design-rectangular beam, slab, T-beam, column, footing and stair case.

Steel Structures: Properties of steel section, loads and permissible stresses, IS specifications, Analysis and design- welded joints, beam, column, base tension member; Design of roof truss.

7. Irrigation Engineering

Definition, Duty, delta, base period, rainfall and its measurement, factors affecting runoff methods of computing maximum flood discharge; Classification of head works, component

parts of a weir and barrage, factors influencing selection of site –reservoirs and dams; Classification of canals, canal lining, cross drainage works; Soil erosion, water logging, soil water plant relationship; Necessity of irrigation – advantages and disadvantages, irrigation methods.

8. Environmental Engineering

Basics of ecosystem, water supply scheme; Sources of water; Conveyance of water – pipes, joints and laying; Testing of water, drinking water standards; Treatment of water, Distribution of water; Water supply connection to a building.

Quantity of sewage, surface drains, design of sewers running half full, limiting velocities; laying of sewers, sewage, sewer appurtenances; Collection of sewage samples, characteristics of domestic and industrial sewage-BOD, COD; Sewage treatment, septic tank & soak pit, sewage disposal-dilution and sewage farming; House drainage arrangements in buildings; solid waste-collection and disposal; Air Pollution-sources, effects and controlling methods.

9. Transportation Engineering

Alignment of roads-plain and hilly terrain, surveys; Cross section of road structure, width of pavement, Chamber, Gradient, Super elevation, Transition curves, horizontal and vertical alignment; Pavement making, traffic signs, traffic islands.

Types of soil, classification of soil-Textural IS Classification, physical properties-plasticity, cohesion, consolidation, compaction, permeability, compressibility, soil moisture content, specific gravity, density; Bearing capacity of soil

- 1. The minimum qualifying marks for Paper I and Paper II separately shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 2. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 3. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 4. The question paper shall be in English but the applicant will have the option to respond either in English or Hindi. However, the same medium of language must be used throughout.
- 5. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, if any, separately. The Merit shall be drawn on the basis of combined scores of the two papers.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.4.4 Scheme of Examination for Direct Recruitment to the post of Junior Engineer (Electrical)

The following shall be the scheme of Examination, components of written test and its syllabus etc. for recruitment to the post of **Junior Engineer** (**Electrical**) by the direct recruitment:

A. Scheme of the Examination:

Written Test				
Paper – I	Time: 1 hours	Max. marks allowed:		
MCQ Type		100 marks		
(Questions will be of Diploma				
or equivalent level)				
Paper-II	Time: 2 hours	Max. marks		
Descriptive Type		Allowed: 100 marks		
(Questions will be of Diploma				
or equivalent level)				
Total Marks		200 marks		

Syllabus for the above papers will be as follows:

1. Electrical Circuits

KVL, KCL, node and mesh analysis, star/delta transformation, electromagnetic induction, mutual induction, ac fundamentals, transient response of dc and ac networks, sinusoidal steady state analysis, resonance ideal current and voltage sources, Network theorems, two-port networks, three phase circuits, power measurement in 3-phase circuits.

2. Electrical Measurements

Bridges and potentio meters, PMMC, moving coil, moving iron, dynamometer, induction type measuring instruments, measurement of voltage, current, power, energy, power factor, digital volt-meters, phase, frequency measurements, Q-meters, oscilloscopes

3. Control Systems

Principles of feedback control systems, transfer function, block diagram reduction, signal flow graph, Mason's, gain formula, time response, steady state error, Routh, Nyquist criterion, Bode plot, root locus, compensation design

4. Analog and digital electronics

Characteristics of p-n diode, Zener diode, BJT, FET, amplifiers, biasing, low frequency and high frequency equivalent circuits, frequency response, feedback amplifiers, oscillators, combinational and sequential logic circuits, multiplexer, Schmitt trigger, A/D, D/A converters, basic of 8-bit, 16 bit microprocessors, architecture, programming, interfacing

5. Electrical Machines

Single phase transformer, equivalent circuit, phasor diagram, tests, regulation, efficiency, 3-phase transformers, connections, parallel operation, auto transformer, DC machines: types, armature windings, characteristics of dc generators and motors, armature reaction, commutation, starting and speed control of dc motors

3-phase induction motors: principle of operation, types of characteristics, computation of performance, equivalent circuit, starting and speed control

Single phase induction motors: types, methods of starting, characteristics

Synchronous Machines: emf equation, armature reaction, equivalent circuit, regulation, parallel operation, load sharing, operation with infinite busbars, synchronous motor, synchronous condenser, V and Inverted V curves

6. Power Systems

Basic power generation concepts, transmission line models and performance, Under- ground cables, string insulators, corona, distribution systems, per unit quantities, bus impedance and admittance matrices, load flow studies, voltage control, power factor correction, economic operation, symmetrical components, fault analysis, principles of over current, differential, and distance protection, protection of alternators, protection of transformers, protection of transmission lines, protection from lightning, neutral grounding, circuit breakers, types and operation of CBs, system stability concept, swing curves, equal area criterion

7. Utilization

Electric heating, resistance heating, induction heating, dielectric heating, Electric traction, lighting calculation, types of lamps and their working

8. Power Electronics and Drives

SCR, IGBT, MOSFET, Static and dynamic characteristics, triggering circuits, phase control rectifier, bridge rectifiers, principles of dc-dc converters, inverters, basic principles and characteristics of adjustable speed dc and ac drives

- 1. The minimum qualifying marks for Paper I and Paper II separately shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 2. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 3. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 4. The question paper shall be in English but the applicant will have the option to respond either in English or Hindi. However, the same medium of language must be used throughout.
- 5. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, if any, separately. The Merit shall be drawn on the basis of combined scores of the two papers.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:

- a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
- b) In case of further bunching/bracketing of candidates, candidate senior in age will be given preference.
- c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.5 <u>Scheme of Examination for Direct Recruitment for Non-Teaching</u> positions in Department of Music

E.5.1 Accompanist – Tanpura, Violin & Sarangi

Scheme of Examination:

Components of scheme of Examination			
Written Examination	Time:	Max. Marks allowed: 150 marks	
(Paper I)	1.5 hours	Section 1 - MCQ	
		100 marks (50 questions)	
		Section 2 – Descriptive	
		50 marks (5 questions)	
Skill Assessment	Time:	The test will be of 50 marks. To qualify the	
	1/2 hrs.	candidate should obtain 25 marks.	
		This will however be only be qualifying in	
		nature.	
Total Marks (150)		150	

Syllabus for the above papers will be as follows:

Written Examination:

- 1. Basic knowledge of the structure and tuning of Tanpura/Sarangi/Violin.
- 2. Knowledge of the notation systems laid down by Pt. Vishnu Digamber Paluskar and Pt. V.N. Bhatkhande.
- 3. Definition of Vadi, Samvadi, Anuvadi, Vivadi, Alap.
- 4. An outline of the history of Indian Music, origin and development of Dhrupad, Khyal & Thumri.
- 5. Definition of the following: Sangeet, Nada, Swara, Shuddha, Vikrit (Komal, Teevra), Saptak (Mandra, Madhya, Tara), Aaroha, Avaroha, Raga, Laya, Tala, Sama, Tali, Khali, Matras, Avartana.
- 6. Description of the following Gharanas Gwalior, Agra, Jaipur and Kirana Gharanas.
- 7. Description of the Ragas prescribed in the course.
- 8. Notation writing of a Chhota Khayal/ Drut Gat.

Skill Assessment:

- 1. Proficiency in any one of the following instruments:
- (i) Tanpura (ii) Sarangi (iii) Violin
- 2. Eight Tala-baddha Alankaras set to different Chhandas.
- 3. Aaroha, Avaroha, Pakad, Vilambit Khayal & Drut Khayal, Vilambit & Drut gat in the following Ragas: Yaman, Bhairav, Bhupali with elaborations in few Todas.

4. The recitation of Thekas of Teen Taal, Keharwa, Dadra and Jhaptal, taal keeping with hand beats.

Note:

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.
- 2. The questions in the written test will of the level of examination/degree/diploma which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be no negative marking for wrong answers.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.5.2 Karnatak Instrumental Music – Accompanist – Veena & Violin

Scheme of Examination:

Components of scheme of Examination			
Written Examination	Time:	Max. Marks allowed: 150 marks	
(Paper I)	1.5 hours	Section 1 - MCQ	
		100 marks (50 questions)	
		Section 2 – Descriptive	
		50 marks (5 questions)	
Skill Assessment	Time:	The test will be of 50 marks. To qualify the	
	1/2 hrs.	candidate should obtain 25 marks.	
		This will however be only be qualifying in	
		nature.	
Total Marks (150)		150	

Syllabus for the above papers will be as follows:

Written Examination:

- 1. Technical terminology Elementary knowledge of Nada, Sruti, Swara, Swarasthana, Raga, Aroha, Avaroha, Laya, Tala, Anibaddha, Nibaddha
- 2. Brief Ragalakshana of Mayamalavagaula /Shankarabharana
- 3. Understanding of basic notation system.
- 4. Knowledge of different parts of the instrument and basic playing techniques.
- 5. Technical Terminology Elementary knowledge of Gamakas, Mela, Janaka Janya Ragas , Vadi, Samvadi , Anuvadi and Vivadi , Varja ,Vakra, Sampoorna
- 6. Sooladi SaptaTalas and their five Jatis.
- 7. Knowledge of Musical forms Namavali, Gitam, Varnam ,Kriti .
- 8. Ability to write simple notations in AdiTala.
- 9. Knowledge of brief Raga lakshanas of ragas taught.
- 10. Important contributions of any two:

Veena: Veena Dhanammal, Karaikudi Brothers, Veena Sheshanna, Mysore Doraiswamy Iyengar

Violin: Rajamanikyam Pillai , Mysore Chowdiah , Tirukodikaval Krishna Iyer, Parur SundaramIyer.

Skill Assessment:

- 1. Basic Technique of holding the instrument, plucking/bowing and fingering.
- 2. Knowledge of 12 Swarasthanas.
- 3. Acquaintance with three major speeds Slow (Vilamba), Medium (Madhya), Fast (Druta).
- 4. Simple Swara exercises Variation in three speeds.
- 5. Elementary knowledge of tech terms swara, swarasthana, laya, tala etc.
- 6. Understanding of different parts of the instrument.
- 7. Elementary knowledge of tuning Veena/ Violin.
- 8. One Nottuswara composition of MuthuswamiDikshitar/ Namavali/ or any simple composition in Adi/ RupakaTalam in a Raga of choice.
- 9. One simple Geetam and a Simple Varnam in Adi/ RupakaTalam in a Raga of choice.
- 10. Knowledge of brief raga lakshanas of ragas taught.
- 11. Contribution of Ragamanikyan Pillai and Tirakodikaval Krishna Iyer, Parun Sundaram Iyer.
- 12. Understanding of basic notation system.
- 13. Tuning of Veena/Violin instrument opted for.

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.
- 2. The questions in the written test will of the level of examination/degree/diploma which is defined as the minimum eligibility for the respective post.

- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be no negative marking for wrong answers.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.5.3 Hindustani Instrumental Music-Accompanist – Harmonium

Scheme of Examination:

Components of scheme	Components of scheme of Examination			
Written Examination	Time:	Max. Marks allowed: 150 marks		
(Paper I)	1.5 hours	Section 1 - MCQ		
		100 marks (50 questions)		
		Section 2 – Descriptive		
		50 marks (5 questions)		
Skill Assessment	Time:	The test will be of 50 marks. To qualify the		
	1/2 hrs.	candidate should obtain 25 marks.		
		This will however be only be qualifying in		
		nature.		
Total Marks (150)		150		

Syllabus for the above papers will be as follows:

Written Examination:

- 1. Brief History of Harmonium.
- 2. Write ten advance Alankars.
- 3. Drawing sketch of Harmonium with its various parts.
- 4. Definition of That, Raga, Tala, Naad and its characteristics, Harmony and Melody.
- 5. Write ten Alankars with finger techniques.
- 6. Definition of Swar, Saptak, Vadi, Samvadi, Pakad.
- 7. Description of Ragas prescribed.
- 8. Write notation of a fast Gat/ Bandish in prescribed Ragas.
- 9. Notation of Talas with Dugun & Chaugun.

Skill Assessment:

- 1. Elementary Knowledge of Harmonium, its various parts and various types of Harmoniums and finger techniques.
- 2. Structural details of Harmonium.
- 3. Ability to play & write (10) ten Alankars of shuddha&vikritswaras.
- 4. Ability to write a notation of any fast composition in Bhatkhande's notation system.
- 5. 15 general alankars with finger techiniques in above mentioned ragas.
- 6. Ability to play fast/Drut compositions with alaap and atleast 10 tanas in one of the following ragas:
 - a) AlhaiyaBilawalb) Bihagc) Malkaunsd) Yamane) Bhupalif) Bhairav
- 7. Elementary knowledge of shuddha and vikritswaras, saptak, vadi, samvadi, pakad.
- 8. Ability to play a dhun in Raga Kafi or Khamaj.
- 9. Elementary knowledge of Chautala, Jhaptala, Dadra, Teentaal, Ektal & Keherwa.

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.
- 2. The questions in the written test will of the level of examination/degree/diploma which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be no negative marking for wrong answers.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.5.4 Karnatak Percussion Music-Accompanist – Mridangam

Scheme of Examination:

Written Examination	Time:	Max. Marks allowed: 150 marks
(Paper I)	1.5 hours	Section 1 - MCQ
		100 marks (50 questions)
		Section 2 – Descriptive
		50 marks (5 questions)
Skill Assessment	Time:	The test will be of 50 marks. To qualify the
	1/2 hrs.	candidate should obtain 25 marks.
		This will however be only be qualifying in
		nature.
Total Marks (150)		150

Syllabus for the above papers will be as follows:

Written Examination:

- 1. Technical terminology –Elementary knowledge of all important terms used in practical lessons taught in SEC I-Tattakaram, Chapu, Meettu, Toppi, Varu, Choru.
- 2. Understanding the concept of Tala, Laya, Gati
- 3. Understanding of different parts of the instrument.
- 4. Understanding of basic notation system.
- 5. Technical terminology all terms used in the practical lessons taught in SEC II Mohra, Pharan, Korvai, Arudi, Jaati, Gati.
- 6. Sulaadi SaptaTalas with Jaatibhedas
- 7. Contribution of Palghat Mani Iyer& Palani Subramanya Iyer.
- 8. Understanding of basic notation system.
- 9. Elementary knowledge of tuning of Mridangam.

Skill Assessment:

- 1. Basic technique of holding the instrument, sitting posture and fingering techniques.
- 2. Knowledge of syllables (Ta, Thi, Thom, Nam, Chapu, Din and Da) and their playing style.
- 3. Pathavarisaikal Elementary exercises in three speeds- slow, medium, fast.
- 4. Thattakaram (Chollukkattu) and its importance in learning Mridangam.
- 5. Different places in producing the syllables of playing Mridangam such as chapu, Meetu, Toppi etc.
- 6. Understanding the concept of tala and Laya.
- 7. Understanding of different parts of the instrument.
- 8. Basic knowledge of Laya, Gati&SulaadiSaptaTalas with Jaatibhedas.
- 9. Elementary knowledge of tuning of Mridangam.
- 10. Acquaintance of playing Adi/ RupakaTalam.

- 11. Ability to play Paran, Mohra, Korvai, Arudi.
- 12. Contribution of Palghat Mani Iyer&PalaniSubramanyaIyer.
- 13. Understanding of basic notation system.
- 14. Ability to tune one's own instrument.

Note:

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.
- 2. The questions in the written test will of the level of examination/degree/diploma which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be no negative marking for wrong answers.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.5.5 Hindustani Percussion Music- Accompanist – Tabla/Pakhwaj

Scheme of Examination:

Components of scheme of Examination			
Written Examination	Time:	Max. Marks allowed: 150 marks	
(Paper I)	1.5 hours	Section 1 - MCQ	
		100 marks (50 questions)	
		Section 2 – Descriptive	
		50 marks (5 questions)	
Skill Assessment	Time:	The test will be of 50 marks. To qualify the	
	1/2 hrs.	candidate should obtain 25 marks.	
		This will however be only be qualifying in	
		nature.	
Total Marks (150)		150	

Syllabus for the above papers will be as follows:

Written Examination:

- 1. Brief history of Gharanas of Tabla&Pakhawaj.
- 2. Brief history of Tabla&Pakhawaj.
- 3. Write the varnas (Bol) of Tabla&Pakhawaj.
- 4. Write in notation with Thah, Dugun&Chaugun of Jhaptal and Dhamar.
- 5. Write in notation of Kayada, Rela, Palta, Tihai and ChakradarTukra/ Param in Jhaptal/ Dhamar.
- 6. Write in notation with Thah, Dugun&Chaugun of Teental/ Chautal.
- 7. Brief introduction of RupakTala/ TivraTala.
- 8. Write in Notation with Thah, Dugun&Chaugun of Dadra and Keharva.
- 9. Write in notation of Kayada, Rela, Palta, Tihai and ChakradaTukra/ Paran in Teental/ Chautal.
- 10. Write an essay on Vocal and Instrumental Music.
- 11. Brief introduction of Ektala/Chautala.

Skill Assessment:

- 1. Demonstration of theka of Jhaptala/Dhamar in Thah, Dugun and Chaugun by the hand beats.
- 2. Basic Bols (varnas) of Tabla/ Pakhawaj.
- 3. Two advance Kayadas/Relas with Paltas&Tihai, two simple tukras/Parans, two chakradartukras/Parans inJhaptala/Dhamar.
- 4. Theka of Teentala/ChautaalwithThah, Dugun, Chaugun and keep the theka by hand beats
- 5. Playing knowledge of Ektala and Rupak in barabarkilaya/Chautala&Teevra.
- 6. Knowledge of four Kayadas/Relas ,Paltas and Tihai, One Simple and ChakradarTukra/Paran in Teentala/Chautaal.
- 7. One Kayada each of 'Tirkitataka' and 'Dhirkit' in Teentala/Chautaal.
- 8. Four variation in Keherwa and Dadra Tala.
- 9. Elementary knowledge of Keherwa and Dadra Talas/ Tivra&Sooltala.
- 10. Tuning of Tabla/Pakhawaj.
- 11. Basic knowledge of vocal and instrumental accompaniment.
- 12. Elementary knowledge of tuning of Tabla/ Pakhawaj.

Note:

1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.

- 2. The questions in the written test will of the level of examination/degree/diploma which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be no negative marking for wrong answers.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.5.6 Technical Assistant (Music)

Scheme of Examination:

Components of scheme of Examination			
Written Examination	Time:	Max. Marks allowed: 150 marks	
(Paper I)	1.5 hours	Section 1 - MCQ	
		100 marks (50 questions)	
		Section 2 – Descriptive	
		50 marks (5 questions)	
Skill Assessment	Time:	The test will be of 50 marks. To qualify the	
	1/2 hrs.	candidate should obtain 25 marks.	
		This will however be only be qualifying in	
		nature.	
Total Marks (150)		150	

Syllabus for the above papers will be as follows:

Written Examination:

- 1. Knowledge about the structure of the following musical instruments
 - i. Tanpura
 - ii. Harmonium
 - iii. Tabla
 - iv. Sitar
- 2. Knowledge about tuning of the following musical instruments –

- i. Tanpura
- ii. Tabla
- iii. Sitar
- 3. Knowledge about handling and upkeep of musical instruments
- 4. Knowledge about the sound system and using it.
- 5. Knowledge of different types of electronic instruments and their usage such as Electronic tanpura, Electronic Tabla, Electronic Lehra player etc.

Skill Assessment:

- 1. Proficiency in tuning and handling of the following musical instruments
 - i. Tanpura
 - ii. Sitar
- 2. Ability to change the strings in the following musical instruments
 - i. Tanpura
 - ii. Sitar
- 3. Ability to play the Tanpura.
- 4. Ability to handle and use electronic instruments
- 5. Ability to tie frets in fretted instruments.

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.
- 2. The questions in the written test will of the level of examination/degree/diploma which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be no negative marking for wrong answers.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.5.7 Music Attendant

Scheme of Examination:

Compone	Components of scheme of Examination				
Written Examination	Time:	Max. Marks allowed: 150 marks			
(Paper I)	1.5 hours	Section 1 - MCQ			
		100 marks (50 questions)			
		Section 2 – Descriptive			
		50 marks (5 questions)			
Skill Assessment	Time:	The test will be of 50 marks. T			
	1/2 hrs.	qualify the candidate should obtain			
		25 marks.			
		This will however be only be			
		qualifying in nature.			
Total Marks (150)		150			

Syllabus for the above papers will be as follows:

Written Examination:

- 1. Knowledge about the structure of the following musical instruments
 - i. Tanpura
 - ii. Harmonium
 - iii. Tabla/Mridangam
 - iv. Sitar
- 2. Knowledge about handling (storage, transportation & upkeep) of musical instruments
- 3. Knowledge about the sound system and using it.
- 4. Knowledge of different types of electronic instruments and their usage such as Electronic tanpura, Electronic Tabla, Electronic Lehra player etc.

Skill Assessment:

- 1. Elementary knowledge and handling (storage, transportation & upkeep) of the following musical instruments
 - i. Tanpura
 - ii. Sitar
 - iii. Harmonium
 - iv. Tabla/Mridangam
- 2. Ability to change the strings in the following musical instruments
 - i. Tanpura
 - ii. Sitar
- 3. Ability to handle and use electronic instruments

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will of the level of examination/degree/diploma which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be no negative marking for wrong answers.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.6 Miscellaneous Posts not covered above:

E.6.1 Scheme of Examination for Direct Recruitment for Miscellaneous Posts not included above in Group 'C' (PB – I, GP – Rs. 2000 &Rs. 1900/-), for example Garden Chowdhary, Work Assistant, Machine Operator, Technician VII, Wireman, Pipefitter, Meter Reader, Work Docker Clerk, Carpenter, Assistant Store Keeper, Telephone Operator, Receptionist, Driver, Dispatch Rider, Caretaker, Junior Mechanic, Assistant Wireman, Assistant Mason, Assistant Pipefitter, Assistant Pump Operator, Balvadi Teacher, Cook, Halwai, Counter Clerk, Senior Program Attendant, Urdu Typist, Binder Grade II, etc

(This will not be applicable to posts which have been marked for outsourcing by the University).

Scheme of Examination:

Objective Type (Paper I)	Time:	Max. Marks:
Multiple Choice Questions pertaining to the	3 hrs.	300 marks (150 questions)
subject matter of the concerned post. The		
questions will be upto the level of 10 th Class/		
Secondary.		
Skill Assessment	Time:	The test will be of 50 marks. To
Skills pertaining to subject matter of the	1/2 hrs.	qualify the candidate should
concerned post would be assessed. (The		obtain 25 marks.
manner in which the skills are to be assessed		
may be determined by the examiner/ group		This will however be only be
of examiners appointed for the purpose)		qualifying in nature.
Total Marks	•	300

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I only.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:

- a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
- b) In case of further bunching/bracketing of candidates, candidate senior in age.
- c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.
- E.6.2 Scheme of Examination for Direct Recruitment for Miscellaneous Posts not included above in Group 'C' (PB I, GP Rs. 2400/-), for example Stenographer, Senior Garden Chowdhary, Proof Reader, Store Assistant, Electrician, Sanitary Inspector, Calligraphist, Technician VI, Programme Assistant, Storekeeper, Junior Mechanic, Salesman etc.

Scheme of Examination:

Objective Type (Paper I)	Time:	Max. Marks:
Multiple Choice Questions pertaining to the	3 hours	300 marks (150 questions)
subject matter of the concerned post. The		
questions will be upto the level of 12 th Class/		
Senior Secondary.		
Skill Assessment	Time:	The test will be of 50
Skills pertaining to subject matter of the	1/2 hrs.	marks. To qualify the
concerned post would be assessed. (The		candidate should obtain 25
manner in which the skills are to be assessed		marks.
may be determined by the examiner/ group		This will however be only
of examiners appointed for the purpose)		be qualifying in nature.
Total Marks		300

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I only.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:

- a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
- b) In case of further bunching/bracketing of candidates, candidate senior in age.
- c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.
- E.6.3 Scheme of Examination for Direct Recruitment for Miscellaneous Posts not included above in Group 'C' (PB I, GP Rs. 2800/-), for example Statistical Assistant, Hindi Assistant, Assistant Archivist, Sports Coach, Technical Assistant, Geologist, Mechanic, Projectionist, Instrument Mechanic, Glass Blower, Mechanic V, Sr. Instrument Mechanic/Maker, Technician V, Draftsman, Technical Assistant (Cartography), Technical Assistant (Computers), Pharmacist, Mast Mechanic, etc.

Scheme of Examination:

Objective Type (Paper I)	Time:	Max. Marks:
Multiple Choice Questions pertaining to the	3 hrs.	300 marks (150 questions)
subject matter of the concerned post. The		
questions will be upto the level of		
Graduation.		
Skill Assessment	Time:	The test will be of 50 marks. To
Skills pertaining to subject matter of the	1/2 hrs.	qualify the candidate should
concerned post would be assessed. (The		obtain 25 marks.
manner in which the skills are to be assessed		This will however be only be
may be determined by the examiner/ group		qualifying in nature.
of examiners appointed for the purpose)		
Total Marks		300

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the language. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 5. Merit shall be drawn only for candidates who qualify for Paper I and Skill Test separately. The Merit shall be drawn on the basis of scores of Paper I only.
- 6. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:

- a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
- b) In case of further bunching/bracketing of candidates, candidate senior in age.
- c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.
- E.6.4 Scheme of Examination for Direct Recruitment for Miscellaneous Posts not included above in Group 'B' (Non Gazette) level (PB II, GP Rs. 4200/- and above), for example Assistant Manager (Guest House), Security Officer, Assistant Security Officer, Hindi Translator, University Cashier, Legal Assistant, Personal Assistant, Console Operator, Assistant Electronic Engineer, Workshop Technician, Network & System Operator, Physiotherapist, Technician, Social Worker, Draftsman Grade –I, Nurse, X-Ray Technician, Horticulturist, etc.

A. Scheme of the Examination:

	Type of Examination	Time:	Max. marks:
Paper-I	MCQ Type	2 hours*	300 marks
			(150 questions)
Paper-II	Descriptive Type	3 hours*	200 marks
Skill Test	Skills pertaining to subject matter	Time:	The test will be of 50
	of the concerned post would be	1/2 hrs.	marks. To qualify the
	assessed. (The manner in which		candidate should
	the skills are to be assessed may be		obtain 25 marks.
	determined by the examiner/ group		This will however be
	of examiners appointed for the		only be qualifying in
	purpose)		nature.
Total Mar	ks		500

^{*15} minutes extra per hour would be given to Visually Handicapped and Cerebral Palsy candidates.

B. Test components:

	TEST COMPONENTS	DURATION: 2 hours	
Paper-I		NO. OF QUESTIONS	MARKS
(i)	Questions pertaining to specific area of the post concerned	50	100
(ii)	General Awareness	25	50
(iii)	Reasoning Ability	25	50
(iv)	Mathematical Ability	25	50
(v)	Test of Language English or Hindi	25	50
	TOTAL	150	300

	TEST COMPONENTS	DURATION: 3 hours	
		MARKS	
Paper-II	Descriptive Type	200	
	TOTAL	200	

C. Syllabus:

Paper - I:

- (i) Questions pertaining to specific area of the post concerned: The questions will pertain to the specific area/skill of the post concerned. For instance for the post of Assistant Manager, questions will be asked from Hotel Management, for Legal Assistant questions on Law, for Engineer questions on Engineering etc.
- (ii) General Awareness: Questions will be designed to test the ability of the candidate's General Awareness of the environment and its relevance to the society. The questions will also be designed to test knowledge of the current events and of such matters of everyday observation as may be expected of an educated person. The test will include questions relating to India and her neighboring countries, especially pertaining to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, events etc.
- (iii) Reasoning Ability: The syllabus of General Intelligence includes questions of both verbal and non-verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.
- (iv) Mathematical Ability: The test of Arithmetical and Numerical Ability will cover Number System including questions on Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

(v) Test of English/Hindi:

In addition to the testing of candidate's understanding of the English or Hindi Languages, its Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

Paper - II:

Descriptive Type: The questions will be designed to test the ability of the candidate's knowledge and awareness on higher education system in India, its regulatory bodies and recent developments in the field and on the following subjects:

Topic	Marks allocated	
Basic knowledge pertaining to functional, procedural aspect of the work profile of the post concerned.	100 marks (10questions x 10 marks) Each question to be answered in 100 words	
Situation Test analysis, where the candidates reaction would be sought on a given situation test case	25 marks (200 words)	
Knowledge of Computers with special reference to knowledge of word processing, data analysis packages	25 marks	
Essay	50 marks (500 words)	

D. Skill Test:

The skill test shall be qualifying in nature and no additional credits for the same shall be allocated.

- 1. The question paper should be bilingual (English and Hindi) and the applicant will have the option to respond in either of the languages. However, the same medium of language must be used throughout.
- 2. The questions in the written test will be of the level of degree/diploma/examination which is defined as the minimum eligibility for the respective post.
- 3. The minimum qualifying marks for Paper I and Paper II separately shall be 45% for the unreserved posts and 40% for the posts reserved for OBC category and 35% for the posts reserved for SC/ST/PwD category.
- 4. Answer script of Paper-II of a candidate would be evaluated only if the candidate qualifies in Paper-I.
- 5. There shall be negative marking for wrong answers in Paper I to the tune of 1/4th of marks allocated per question.
- 6. Merit shall be drawn only for candidates who qualify Paper I, Paper II and skill test, separately. The Merit shall be drawn on the basis of combined scores of Paper I and Paper II only.
- 7. In case of bunching/bracketing of candidates in the results of the written test, the priority/merit list would be decided as follows:
 - a) The candidate having more marks in aggregate in the examination/degree/diploma which is defined as the minimum eligibility for the respective post will be given preference.
 - b) In case of further bunching/bracketing of candidates, candidate senior in age.
 - c) In case option at (a) and (b) is exhausted, it will be decided through draw of lots.

E.7 Recommendation regarding Recruitment Rules for all the above posts

The members also recommended that the word "interview ", wherever occurring in the recruitment rules of the above posts should be replaced by "scheme of examination as approved by the University"

The above scheme of examination should be circulated to the University Departments and Colleges for information and implementation.

-sd- -sd-

(Prof. Devesh K. Sinha) (Sh. Jay Chanda) (Dr. Sarabjit Kaur)

-sd- -sd-

(Prof Suneera Kasliwal) (Dr. D V Singh) (Shri Anupam Shrivastav) Head and Dean Librarian University Engineer (Music and Fine Arts)

-sd- -sd-

(Shri H H Baa) (Shri B Raja Rajan) (Dr. K. Ratnabali)

Joint Registrar (E-NT) Joint Registrar (Colleges) Dy. Dean (Legal Affairs)