

**झारखण्ड केन्द्रीय विश्वविद्यालय**  
**CENTRAL UNIVERSITY OF JHARKHAND**



**Paper – II (Descriptive) Syllabus**  
*for*  
**Recruitment**  
*of*  
**Group 'B' and 'C' Non-Teaching Posts**

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**Section Officer**

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	General English – Précis, letter writing, noting, drafting and applied English grammar	6	5	30	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Office Procedure, Service Rules, and University Administration	8	5	40			
C	GFR, Financial Regulations and Financial Administration including book-keeping	6	5	30			
<b>Total</b>				<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

**i. Section A – General English (30 Marks)**

This section of the paper will be designed to test the candidate's knowledge of English Grammar and composition, and generally their ability to understand and ability to write correct English. Evaluation will also take into account the arrangement, general expression and workman like use of the language. This section may include questions on essay writing, précis, letter writing, noting, drafting and applied grammar.

**ii. Section B – Office Procedure, Service Rules & University Administration (40 Marks)**

**Office Procedure:** Composition and working of a file, preparation and submission of cases, security of official information and documents, recording of files, editing and printing of important files classified under Class A, collection and printing of departmental decision, record retention schedule and weeding out of records, review of performance, punctuality, regulation of attendance and observance of proper office decorum, drafting of communication, circulation and keeping of the confidential records.

**Service Rules:** Advances, children education allowance, compensatory allowances, conduct rules, departmental promotion committee, deputation and foreign service, discipline rules, house allotment rules of the University, income tax, joining time, leave rules, leave travel concession (LTC), CGHS, medical attendance rules (CSMA Rules), pay, provident funds, quitting service – other than superannuation, reservations and concession in appointments, resignation and removal and dismissal, retirement on superannuation, seniority and promotion, travelling allowance, New Pension Scheme, Gender Sensitization Committee against Sexual Harassment (GSCASH) / The Sexual Harassment Of Women At Workplace (Prevention, Prohibition And Redressal) Act, 2013, RTI and Anti-Ragging provisions etc.

**University Administration:** This section will contain questions on University Administration, such as powers and functions of the University authorities, framing of curricula and evaluation procedures, procedure for processing cases for the University Court, Executive Council, Academic Council, Finance Committee, Procedure for making of Statutes, Ordinances and Regulations, and other matters connected with the working of the University. For this purpose candidates may go through the Act, Statutes and Ordinances of the University.

**iii. Section C – GFR, Financial Regulations and Financial Administration including book-keeping (30 Marks)**

Financial regulations, Financial Administration, GFR (General Financial Rules), Purchase procedures, Accountancy, Bank reconciliation and Taxation provisions etc.

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## **Assistant**

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	General English – Précis, letter writing, noting, drafting and applied English grammar	6	5	30	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Office Procedure, Service Rules, and University Administration	8	5	40			
C	GFR, Financial Regulations and Financial Administration including book-keeping	6	5	30			
<b>Total</b>				<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

**i. Section A – General English (30 Marks)**

This section of the paper will be designed to test the candidate's knowledge of English Grammar and composition, and generally their ability to understand and ability to write correct English. Evaluation will also take into account the arrangement, general expression and workman like use of the language. This section may include questions on essay writing, précis, letter writing, noting, drafting and applied grammar.

**ii. Section B – Office Procedure, Service Rules & University Administration (40 Marks)**

**Office Procedure:** Composition and working of a file, preparation and submission of cases, security of official information and documents, recording of files, editing and printing of important files classified under Class A, collection and printing of departmental decision, record retention schedule and weeding out of records, review of performance, punctuality, regulation of attendance and observance of proper office decorum, drafting of communication, circulation and keeping of the confidential records.

**Service Rules:** Advances, children education allowance, compensatory allowances, conduct rules, departmental promotion committee, deputation and foreign service, discipline rules, house allotment rules of the University, income tax, joining time, leave rules, leave travel concession (LTC), CGHS, medical attendance rules (CSMA Rules), pay, provident funds, quitting service – other than superannuation, reservations and concession in appointments, resignation and removal and dismissal, retirement on superannuation, seniority and promotion, travelling allowance, New Pension Scheme, Gender Sensitization Committee against Sexual Harassment (GSCASH) / The Sexual Harassment Of Women At Workplace (Prevention, Prohibition And Redressal) Act, 2013, RTI and Anti-Ragging provisions etc.

**University Administration:** This section will contain questions on University Administration, such as powers and functions of the University authorities, framing of curricula and evaluation procedures, procedure for processing cases for the University Court, Executive Council, Academic Council, Finance Committee, Procedure for making of Statutes, Ordinances and Regulations, and other matters connected with the working of the University. For this purpose candidates may go through the Act, Statutes and Ordinances of the University.

**iii. Section C – GFR, Financial Regulations and Financial Administration including book-keeping (30 Marks)**

Financial regulations, Financial Administration, GFR (General Financial Rules), Purchase procedures, Accountancy, Bank reconciliation and Taxation provisions etc.

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## Private Secretary

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	General English – Précis, letter writing, noting, drafting and applied English grammar	6	5	30	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Office Procedure, Service Rules, and University Administration	8	5	40			
C	GFR, Financial Regulations and Financial Administration including book-keeping	6	5	30			
<b>Total</b>				<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

**i. Section A – General English (30 Marks)**

This section of the paper will be designed to test the candidate's knowledge of English Grammar and composition, and generally their ability to understand and ability to write correct English. Evaluation will also take into account the arrangement, general expression and workman like use of the language. This section may include questions on essay writing, précis, letter writing, noting, drafting and applied grammar.

**ii. Section B – Office Procedure, Service Rules & University Administration (40 Marks)**

**Office Procedure:** Composition and working of a file, preparation and submission of cases, security of official information and documents, recording of files, editing and printing of important files classified under Class A, collection and printing of departmental decision, record retention schedule and weeding out of records, review of performance, punctuality, regulation of attendance and observance of proper office decorum, drafting of communication, circulation and keeping of the confidential records.

**Service Rules:** Advances, children education allowance, compensatory allowances, conduct rules, departmental promotion committee, deputation and foreign service, discipline rules, house allotment rules of the University, income tax, joining time, leave rules, leave travel concession (LTC), CGHS, medical attendance rules (CSMA Rules), pay, provident funds, quitting service – other than superannuation, reservations and concession in appointments, resignation and removal and dismissal, retirement on superannuation, seniority and promotion, travelling allowance, New Pension Scheme, Gender Sensitization Committee against Sexual Harassment (GSCASH) / The Sexual Harassment Of Women At Workplace (Prevention, Prohibition And Redressal) Act, 2013, RTI and Anti-Ragging provisions etc.

**University Administration:** This section will contain questions on University Administration, such as powers and functions of the University authorities, framing of curricula and evaluation procedures, procedure for processing cases for the University Court, Executive Council, Academic Council, Finance Committee, Procedure for making of Statutes, Ordinances and Regulations, and other matters connected with the working of the University. For this purpose candidates may go through the Act, Statutes and Ordinances of the University.

**iii. Section C – GFR, Financial Regulations and Financial Administration including book-keeping (30 Marks)**

Financial regulations, Financial Administration, GFR (General Financial Rules), Purchase procedures, Accountancy, Bank reconciliation and Taxation provisions etc.

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## Hindi Translator

**The Scheme of Examination for Paper–II (Descriptive type test) is given below:**

Section	Paper	Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Translation	50	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Essay	50			
<b>Total</b>		<b>100</b>			

### Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks

i. **Section A – Translation (50 Marks)**

This section will contain two passages for translation – one passage for translation from Hindi to English and one passage for translation from English to Hindi to test the candidates' translation skill and their ability to write as well as comprehend the two languages correctly, precisely and effectively. The level of the paper will be consistent with the educational qualification prescribed. .

ii. **Section B – Essay (50 Marks)**

This section will contain essay each in Hindi and English to test the candidates' skill and their ability to write as well as comprehend the two languages correctly, precisely and effectively. The level of the paper will be consistent with the educational qualifications prescribed.

### Skill Test (Typing Test):

The University will hold typing Test in the following manner:

Hindi typing speed @ 30 w.p.m.

\* The procedure for evaluation of typing tests is given in **Appendix – 'B'**.

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## Senior Technical Assistant

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Domain: Web and Software Application Security	10	5	50	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Domain: Computer Networks & System Administration and Network Security	5	5	25			
C	Web Technologies & Cyber Security	5	5	25			
<b>Total</b>				<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

- i. **Section A – Domain: Web and Software Application Security (50 Marks)**  
**Operating System:** Processes, Threads, inter-Process communication, Concurrency, Synchronization, Deadlock, CPU scheduling, Memory management and virtual memory, File systems, I/O systems, Protection and security. **Database Management:** DBMS, RDBMS, ER-model, Relational Model (relational algebra, tuple calculus), Database design (integrity constraints, normal forms), Structure Query languages (SQL), File structures (sequential files, indexing, B and B+ trees), Transactions and concurrency Control No SQL Databases.
  
- ii. **Section B – Domain: Computer Networks & System Administration and Network Security (25 Marks)**  
 OSI and TCP/IP, LAN technologies, Flow and error control techniques, Routing algorithms, Congestion control, Basics of Transport layer, Data Link layer, Network layer, IP (v4), IP (v6), Application layer protocols, (ICMP, DNS, SMTP, POP, FTP, HTTP, HTTPS), Basic concepts of hubs, switches, gateways and routers, Wireless technologies, Network security -basic concepts of public key and private key cryptography, digital signature, firewalls.
  
- iii. **Section C – Web Technologies & Cyber Security (25 Marks)**  
 Development, web service, HTML5, CSS3, XML, basic concept of client-server computing, frontend technologies, Secure programming techniques, OWASP top10 vulnerabilities, concepts on IoT, Block-chain, Cryptography, Image Water marking, Techniques in modern image cryptography.

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## Junior Engineer (Electrical)

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Basic Concept, Circuit Law, Magnetic Law, Basic Electronics	6	5	30	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	AC Fundamentals, Measurement and measuring instruments, Electrical Machines, Synchronous Machines	8	5	40			
C	Generation, Transmission and Distribution, Estimation and costing, Utilization of Electrical Energy	6	5	30			
<b>Total</b>				<b>100</b>			

### Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks

The standard of the questions in Engineering subjects will be at the level of Bachelor of Engineering (Electrical) from a recognized Institute, Board or University recognized by All India Board of Technical Education

i. **Section A – (30 Marks)**

**Basic concepts:** Concepts of resistance, inductance, capacitance, and various factors affecting them. Concepts of current, voltage, power, energy and their units.

**Circuit law :** Kirchoff's law, Simple Circuit solution using network theorems.

**Basic Electronics:** Working of various electronic devices e.g. P N Junction diodes, Transistors (NPN and PNP type), BJT and JFET. Simple circuits using these devices.

**Magnetic Circuit:** Concepts of flux, mmf, reluctance, Different kinds of magnetic materials, Magnetic calculations for conductors of different configuration e.g. straight, circular, solenoidal, etc. Electromagnetic induction, self and mutual induction

ii. **Section B – (40 Marks)**

**AC Fundamentals:** Instantaneous, peak, R.M.S. and average values of alternating waves, Representation of sinusoidal wave form, simple series and parallel AC Circuits consisting of R.L. and C, Resonance, Tank Circuit. Poly Phase system – star and delta connection, 3 phase power, DC and sinusoidal response of R-L and R-C circuit.

**Measurement and measuring instruments:** Measurement of power (1 phase and 3 phase, both active and re-active) and energy, 2 wattmeter method of 3 phase power measurement. Measurement of frequency and phase angle. Ammeter and voltmeter (both moving oil and moving iron type), extension of range wattmeter, Multimeters, Megger, Energy meter AC Bridges. Use of CRO, Signal Generator, CT, PT and their uses. Earth Fault detection.

**Electrical Machines:** (a) D.C. Machine – Construction, Basic Principles of D.C. motors and generators, their characteristics, speed control and starting of D.C. Motors. Method of braking motor, Losses and efficiency of D.C. Machines. (b) 1 phase and 3 phase transformers – Construction, Principles of operation, equivalent circuit, voltage regulation, O.C. and S.C. Tests, Losses and efficiency. Effect of voltage, frequency and wave form on losses. Parallel operation of 1 phase /3 phase transformers. Auto transformers. (c) 3 phase induction motors, rotating magnetic field, principle of operation, equivalent circuit, torque-speed characteristics, starting and speed control of 3 phase induction motors. Methods of braking, effect of voltage and frequency variation on torque speed characteristics.



**Synchronous Machines:** Generation of 3-phase e.m.f. armature reaction, voltage regulation, parallel operation of two alternators, synchronizing, control of active and reactive power. Starting and applications of synchronous motors

iii. **Section C – (30 Marks)**

**Generation, Transmission and Distribution:** Different types of power stations, Load factor, diversity factor, demand factor, cost of generation, inter-connection of power stations. Power factor improvement, various types of tariffs, types of faults, short circuit current for symmetrical faults. Switchgears – rating of circuit breakers, Principles of arc extinction by oil and air, H.R.C. Fuses, Protection against earth leakage / over current, etc. Buchholtz relay, Merz-Price system of protection of generators & transformers, protection of feeders and bus bars. Lightning arresters, various transmission and distribution system, comparison of conductor materials, efficiency of different system. Cable – Different type of cables, cable rating and derating factor.

**Estimation and costing:** Estimation of lighting scheme, electric installation of machines and relevant IE rules. Earthing practices and IE Rules.

**Utilization of Electrical Energy:** Illumination, Electric heating, Electric welding, Electroplating, Electric drives and motors.

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## Technical Assistant

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Fundamentals of Computer	7	5	35	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Coding Test (Languages: C++/JAVA/ Python)	7	5	35			
C	Networking & Database	6	5	30			
<b>Total</b>				<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

***Computer Stream:***

- i. **Section A – Fundamental of Computers (35 Marks)**  
 Organization and building blocks of Computers, input & output devices, Basic Operating systems, Concept of High level, assembly level and low-level programming languages, Binary arithmetic: fixed point and floating point, Binary Internet fundamentals, Computer viruses, MS Office
- ii. **Section B – Coding Test (Languages: C++/JAVA/Python) (35 Marks)**  
 C++, C, Linux, DBMS, PHP, Java, .Net, Cloud Computing, Data Structure, HTML, Javascript, Python, Database, Networks etc.
- iii. **Section C – Networking & Database Management (30 Marks)**  
 Networking - OSI and TCP/IP, LAN technologies, Flow and error control techniques, Routing algorithms, Congestion control, Basics of Transport layer, Data Link layer, Network layer, IP(v4), IP(v6), Application layer protocols, (ICMP, DNS, SMTP, POP, FTP, HTTP, HTTPS), Basic concepts of hubs, switches, gateways and routers, Wireless technologies, Network security -basic concepts of public key and private key cryptography, digital signature, firewalls. Database Management – DBMS, RDBMS, ER-model, Relational Model (relational algebra, tuple calculus), Database design (integrity constraints, normal forms), Structure Query languages(SQL), File structures (sequential files, indexing, B and B+ trees), Transactions and concurrency Control No SQL Databases

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## Laboratory Assistant

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
<b>Science Stream</b>					2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
A	Chemistry	7	5	35			
B	Physics	7	5	35			
C	Biology	6	5	30			
<b>Total</b>				<b>100</b>			
<b>Engineering &amp; Technology Stream</b>							
A	Basic Electrical Engineering	7	5	35			
B	Basic Mechanical Engineering	7	5	35			
C	Basic Civil Engineering	6	5	30			
<b>Total</b>				<b>100</b>			
<b>Computer Stream</b>							
A	Fundamentals of Computer	7	5	35			
B	Coding Test (Languages: C++/JAVA/Python)	7	5	35			
C	Networking & Database Management	6	5	30			
<b>Total</b>				<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

***Science Stream:***

- i. **Section A – Chemistry (35 Marks)**  
 Atoms, Molecules and Chemical Arithmetic, Atomic Structure, Radioactivity and Nuclear Chemistry, The Periodic Table and Chemical Families, Chemical Bonding and Molecular Structure, Coordination Compounds, Solid State, Liquid State, Gaseous State
- ii. **Section B – Physics (35 Marks)**  
 Introduction to Physics, The Universe: Stars, Sun, Asteroids: In a nutshell, The Solar System and Satellites, Resistance of a Conductor, Refraction of Light, Reflection of light from Spherical Mirrors, Reflection of Light, Refraction of light by Spherical Lenses, Refraction of light through a glass prism, The Human Eye and its defects, Thermal Expansion of Solids, Liquids and Gases, Mechanical Properties of Fluids, Sound: Doppler Effect and Echo, Magnetic effects of Electric Current, Waves, The Kinetic Theory of Matter, The Four Fundamental Forces, Special and General Theories of Relativity, Radioactivity, Nuclear Fission and Fusion, Motion and Mechanics, Heat and work, Electromagnetism, Electric Current, Atomic Theories.
- iii. **Section C – Biology (30 Marks)**  
 Genetics, Economic importance of plants, Morphology of angiosperms, Digestion, respiration, excretion in humans, Plant and Animal Anatomy, Environmental Studies, Common Characteristics of Fungi, Algae, Lichen, Bryophyta, Reproductive system in humans and human disease, Human nervous system, Circulatory and endocrine system of humans, Classification of animal kingdoms.

***Engineering & Technology Stream:***

- i. **Section A – Basic Electrical Engineering (35 Marks)**  
 Basic laws of Electricity, Various uses & effects of Electricity, Fuse & relays etc., Principle of Generation of Electricity, Transformers, Basics of DC and AC (both single phase & three phase) machine.
- ii. **Section B – Basic Mechanical Engineering (35 Marks)**

Laws of thermodynamics and their applications, Heat Transfer by Conduction, Convection & Radiation, Basics of Internal Combustion Engine, Manufacturing Processes like Casting, Machining, forging Plastic deformation and metal forming, Gas & Arc Welding **Group - C**

iii. **Section C – Basic Civil Engineering (30 Marks)**

Basic Engineering materials like Cement, Timber, Iron & steel, Concrete; Concepts of stress & strain, Elasticity, Young's Modulus, Simple bending & shear, friction, Equilibrium of forces; Fluid Properties like Pressure, viscosity, Surface tension; Properties of soils & types of foundations; RCC and Steel Structures; Classification of surveys & Survey instrument; Construction, Planning and Management techniques.

**Computer Stream:**

i. **Section A – Fundamental of Computers (35 Marks)**

Organization and building blocks of Computers, input & output devices, Basic Operating systems, Concept of High level, assembly level and low-level programming languages, Binary arithmetic: fixed point and floating point, Binary Internet fundamentals, Computer viruses, MS Office.

ii. **Section B – Coding Test (Languages: C++/JAVA/Python) (35 Marks)**

C++, C, Linux, DBMS, PHP, Java, .Net, Cloud Computing, Data Structure, HTML, Javascript, Python, Database, Networks etc.

iii. **Section C – Networking & Database Management (30 Marks)**

Networking - OSI and TCP/IP, LAN technologies, Flow and error control techniques, Routing algorithms, Congestion control, Basics of Transport layer, Data Link layer, Network layer, IP(v4), IP(v6), Application layer protocols, (ICMP, DNS, SMTP, POP, FTP, HTTP, HTTPS), Basic concepts of hubs, switches, gateways and routers, Wireless technologies, Network security -basic concepts of public key and private key cryptography, digital signature, firewalls. Database Management – DBMS, RDBMS, ER-model, Relational Model (relational algebra, tuple calculus), Database design (integrity constraints, normal forms), Structure Query languages(SQL), File structures (sequential files, indexing, B and B+ trees), Transactions and concurrency Control No SQL Databases

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## **Laboratory Attendant**

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Chemistry	6	5	30	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Physics	8	5	40			
C	Biology	6	5	30			
<b>Total</b>				<b>100</b>			

### **Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

**Science Stream:**

**i. Section A – Chemistry (30 Marks)**

Atoms, Molecules and Chemical Arithmetic, Atomic Structure, Radioactivity and Nuclear Chemistry, The Periodic Table and Chemical Families, Chemical Bonding and Molecular Structure, Coordination Compounds, Solid State, Liquid State, Gaseous State

**ii. Section B – Physics (40 Marks)**

Introduction to Physics, The Universe: Stars, Sun, Asteroids: In a nutshell, The Solar System and Satellites, Resistance of a Conductor, Refraction of Light, Reflection of light from Spherical Mirrors, Reflection of Light, Refraction of light by Spherical Lenses, Refraction of light through a glass prism, The Human Eye and its defects, Thermal Expansion of Solids, Liquids and Gases, Mechanical Properties of Fluids, Sound: Doppler Effect and Echo, Magnetic effects of Electric Current, Waves, The Kinetic Theory of Matter, The Four Fundamental Forces, Special and General Theories of Relativity, Radioactivity, Nuclear Fission and Fusion, Motion and Mechanics, Heat and work, Electromagnetism, Electric Current, Atomic Theories.

**iii. Section C – Biology (30 Marks)**

Genetics, Economic importance of plants, Morphology of angiosperms, Digestion, respiration, excretion in humans, Plant and Animal Anatomy, Environmental Studies, Common Characteristics of Fungi, Algae, Lichen, Bryophyta, Reproductive system in humans and human disease, Human nervous system, Circulatory and endocrine system of humans, Classification of animal kingdoms.

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**Attendant (Hostel)**

**The Scheme of Examination for Paper–II (Descriptive type test) is given below:**

Section	Paper	Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Knowledge of functioning and maintenance of Hostel / Mess/Canteen etc.	50	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Letter and Essay writing	50			
<b>Total</b>		<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

- i. **Section A (50 Marks)**  
Knowledge of functioning and maintenance of Hostel/Mess/Canteen etc.
- ii. **Section B (50 Marks)**  
Letter and Essay writing in Hindi and English language.

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## Upper Division Clerk

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	General English – Précis, letter writing, noting, drafting and applied English grammar	6	5	30	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Office Procedure, Service Rules, and University Administration	8	5	40			
C	GFR, Financial Regulations and Financial Administration including book-keeping	6	5	30			
<b>Total</b>				<b>100</b>			

### Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks

i. **Section A – General English (30 Marks)**

This section of the paper will be designed to test the candidate's knowledge of English Grammar and composition, and generally their ability to understand and ability to write correct English. Evaluation will also take into account the arrangement, general expression and workman like use of the language. This section may include questions on essay writing, précis, letter writing, noting, drafting and applied grammar.

ii. **Section B – Office Procedure, Service Rules & University Administration (40 Marks)**

**Office Procedure:** Composition and working of a file, preparation and submission of cases, security of official information and documents, recording of files, editing and printing of important files classified under Class A, collection and printing of departmental decision, record retention schedule and weeding out of records, review of performance, punctuality, regulation of attendance and observance of proper office decorum, drafting of communication, circulation and keeping of the confidential records.

**Service Rules:** Advances, children education allowance, compensatory allowances, conduct rules, departmental promotion committee, deputation and foreign service, discipline rules, house allotment rules of the University, income tax, joining time, leave rules, leave travel concession (LTC), CGHS, medical attendance rules (CSMA Rules), pay, provident funds, quitting service – other than superannuation, reservations and concession in appointments, resignation and removal and dismissal, retirement on superannuation, seniority and promotion, travelling allowance, New Pension Scheme, Gender Sensitization Committee against Sexual Harassment (GSCASH) / The Sexual Harassment Of Women At Workplace (Prevention, Prohibition And Redressal) Act, 2013, RTI and Anti-Ragging provisions etc.

**University Administration:** This section will contain questions on University Administration, such as powers and functions of the University authorities, framing of curricula and evaluation procedures, procedure for processing cases for the University Court, Executive Council, Academic Council, Finance Committee, Procedure for making of Statutes, Ordinances and Regulations, and other matters connected with the working of the University. For this purpose candidates may go through the Act, Statutes and Ordinances of the University.

iii. **Section C – GFR, Financial Regulations and Financial Administration including book-keeping (30 Marks)**

Financial regulations, Financial Administration, GFR (General Financial Rules), Purchase procedures, Accountancy, Bank reconciliation and Taxation provisions etc.

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## Lower Division Clerk

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	General English – Précis, letter writing, noting, drafting and applied English grammar	6	5	30	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Office Procedure, Service Rules, and University Administration	8	5	40			
C	GFR, Financial Regulations and Financial Administration including book-keeping	6	5	30			
<b>Total</b>				<b>100</b>			

### Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks

i. **Section A – General English (30 Marks)**

This section of the paper will be designed to test the candidate's knowledge of English Grammar and composition, and generally their ability to understand and ability to write correct English. Evaluation will also take into account the arrangement, general expression and workman like use of the language. This section may include questions on essay writing, précis, letter writing, noting, drafting and applied grammar.

ii. **Section B – Office Procedure, Service Rules & University Administration (40 Marks)**

**Office Procedure:** Composition and working of a file, preparation and submission of cases, security of official information and documents, recording of files, editing and printing of important files classified under Class A, collection and printing of departmental decision, record retention schedule and weeding out of records, review of performance, punctuality, regulation of attendance and observance of proper office decorum, drafting of communication, circulation and keeping of the confidential records.

**Service Rules:** Advances, children education allowance, compensatory allowances, conduct rules, departmental promotion committee, deputation and foreign service, discipline rules, house allotment rules of the University, income tax, joining time, leave rules, leave travel concession (LTC), CGHS, medical attendance rules (CSMA Rules), pay, provident funds, quitting service – other than superannuation, reservations and concession in appointments, resignation and removal and dismissal, retirement on superannuation, seniority and promotion, travelling allowance, New Pension Scheme, Gender Sensitization Committee against Sexual Harassment (GSCASH) / The Sexual Harassment Of Women At Workplace (Prevention, Prohibition And Redressal) Act, 2013, RTI and Anti-Ragging provisions etc.

**University Administration:** This section will contain questions on University Administration, such as powers and functions of the University authorities, framing of curricula and evaluation procedures, procedure for processing cases for the University Court, Executive Council, Academic Council, Finance Committee, Procedure for making of Statutes, Ordinances and Regulations, and other matters connected with the working of the University. For this purpose candidates may go through the Act, Statutes and Ordinances of the University.

iii. **Section C – GFR, Financial Regulations and Financial Administration including book-keeping (30 Marks)**

Financial regulations, Financial Administration, GFR (General Financial Rules), Purchase procedures, Accountancy, Bank reconciliation and Taxation provisions etc.

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## **Library Assistant**

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Library Management	7	5	35	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Classification and Cataloguing	7	5	35			
C	ICT	6	5	30			
<b>Total</b>				<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

**i. Section A – Library Management (35 Marks)**

Collection development – Types of Documents and Selection Principles, Acquisition Procedure, Acquisition of Journals and Periodicals, Preparation of Documents for use; Library Personnel and Library Committee, Library Rules and Regulations; Library Finance and Budget; Principles of Library Management, Library Organization and Structure; Use and Maintenance of the Library – Circulation, Maintenance, Shelving, Stock Verification, Binding and Preservation, Weeding out, etc.;

**ii. Section B – Classification and Cataloguing (35 Marks)**

**Library Classification Theory and Practice:** Canons and Principles, Library Classification Schemes – DDC, CC, UDC;

**Library Cataloguing Theory and Practice:** Canons and Principles; Library Cataloguing Codes – CCC and AACR;

**Reference and Information Sources:** Bibliography and Reference Sources – Types of Bibliography; Reference Sources – Dictionaries, Encyclopedias, Ready Reference Sources, etc.; Sources of Information – Primary, Secondary, Tertiary, Documentary, Non-Documentary; E- Documents, E-Books, E-Journals, etc.;

**iii. Section C – ICT (30 Marks)**

**Information Services:** Concept and need for Information; Types of Documents; Nature and organization of Information Services, Abstracting and Indexing Services; Computer based Information Services – CAS, SDI;

**Information Technology:** Basics Introduction to Computers; Use of computers in Library housekeeping, Library Automation; Software and software packages; Networks – DELNET, NICNET, etc.; National and International Information Systems – NISSAT, NASSDOC, INSDOC, DESIDOC, etc.

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## Library Attendant

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Knowledge and application of Library and Information Science	12	5	60	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Letter and Essay writing	8	5	40			
<b>Total</b>				<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

- i. **Section A – Knowledge and application of Library and Information Science (60 Marks)**
  1. Types of Libraries and their Features
  2. Classification; concept, purpose and species
  3. Library Catalogue; Definition and purpose
  4. Principles of Book Selection
  5. Selection Tool; Print and Non
  6. Serials/ Journals; Selection and procurement
  7. Weeding
  8. University Library Management
  
- ii. **Section B - Letter and Essay writing (40 Marks)**  
 Letter and Essay writing in Hindi and English language.

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## Security Inspector

**The Scheme of Examination for Paper – II (Descriptive Type Test) is given below:**

Section	Paper	No. of Questions	Marks for Each question	Total Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Knowledge of Disaster Management, Security Regulations, Firefighting, etc.	20	5	100	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
<b>Total</b>				<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

Knowledge of disaster management techniques, Handling of fire-fighting devices and installation of fire extinguishers, Proper handling of licensed weapons-training and management of security personnel deployed for University security. Decorum and discipline of security staff – protocol norms for Independence Day and Republic Day celebrations, Security check points and strategies for full proof entry and exit system, Smooth transportation / movement within the campus-Administrating over all discipline in the campus, other areas relevant to the post.

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**Driver**

**The Scheme of Examination for Paper–II (Descriptive type test) is given below:**

Section	Paper	Marks	Time Duration	Time Duration for VH and Cerebral Palsy Candidates and as applicable to various PWD categories	Minimum Qualifying marks of this paper out of total 100 marks
A	Knowledge of Motor Driving, Motor Mechanics and Traffic Rules & Regulations	50	2 Hours	As per Government of India's Rules	1. 50% for UR 2. 45% for OBC (NC) & EWS and 3. 35% for others
B	Letter and Essay writing	50			
<b>Total</b>		<b>100</b>			

**Indicative Syllabus of Paper – II (Descriptive Type Test): 100 Marks**

i. **Section A – Motor driving, Motor mechanics and Traffic Rules & Regulations (50 Marks)**

This paper will assess the candidate's knowledge with regard to:

- a. Basic maintenance of the vehicle (servicing, emergency handling techniques, tools and documents required with the vehicle etc.)
- b. Various Sections of the Motor Vehicles Act, 1939 amended from time to time
- c. Licensing of Drivers of Motor Vehicles
- d. Rules / Registration of Motor Vehicles
- e. Control of Transport Vehicles
- f. Control of Traffic
- g. Insurance of Motor Vehicles
- h. Offence, Penalties and Procedure
- i. Mandatory Traffic signs
- j. Accident Claims
- k. Accident Claims Tribunals
- l. Duties of drivers
- m. Fuel efficiency and fuel economy

ii. **Section B – (50 Marks)**

Letter and Essay writing in Hindi and English language.

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