



# Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu

## NOTICE

### **Sub: Selection criteria and Syllabus for OMR based written test for various non-teaching posts-reg.**

As approved, the Selection Criteria and Syllabus for conducting OMR based written test for various Non-Teaching positions advertised vide University Notification No's. 03 (Secy.) of 2022 dated 03.06.2022, 05 (Secy.) of 2022 dated 06.06.2022, 06(Secy.) of 2022 dated 07.06.2022 & 09 (Secy.) of 2022 dated. 06.07.2022, is hereby placed on the public domain for the information of all the concerned. The other details pertaining to the conduct of Examination shall be notified separately. The candidates, in their own interest, are advised to keep visiting University Websites for updates in this regard.

S. No	Post	Advertisement Notification	Selection Criteria	Syllabus
1.	Data Entry Operator	03 (Secy.) of 2022 dated 03.06.2022	i. Written test: 100 marks <b>Total : 100 marks</b> ii. Skill test: qualifying only	Annexure-I
2.	Assistant-cum-Typist /Dispatch /Receipt/ Stationery Store Clerk etc.		i. Written test: 100 marks <b>Total : 100 marks</b> ii. Type test: qualifying only	Annexure-II
3.	Audio Visual Operator		i. Written test: 100 marks <b>Total : 100 marks</b> ii. Skill test: qualifying only	Annexure-III
4.	Sound Man		i. Written test: 100 marks <b>Total : 100 marks</b> ii. Skill test: qualifying only	Annexure-IV
5.	Electrician		i. Written test: 100 marks <b>Total : 100 marks</b> ii. Skill test: qualifying only	Annexure-V
6.	Classifier-cum-Cataloguer		i. Written test: 100 marks <b>Total : 100 marks</b>	Annexure-VI
7.	Field-cum-Laboratory Assistant		i. Written test: 100 marks <b>Total : 100 marks</b>	Annexure-VII
8.	Live Stock Assistant		i. Written test: 100 marks <b>Total : 100 marks</b>	
9.	Accounts Assistant/Cashier	05 (Secy.) of 2022 dated. 06.06.2022	i. Written test: 100 marks <b>Total : 100 marks</b>	Annexure-VIII
10.	Stenographer		i. Written test: 100 marks <b>Total : 100 marks</b> ii. Shorthand test: qualifying only iii. Type test: qualifying only	Annexure-IX
11.	Female Nurse		i. Written test: 100 marks <b>Total : 100 marks</b>	Annexure-X

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# Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu

				S.No	Criteria	Marks			
12.	Cleaner	06(Secy.) of 2022 dated 07.06.2022		1.	Written test	85*	Annexure-XI		
13.	Cook/Hostel Attendant				<i>*the marks in written test shall be awarded out of 100 on prorata basis</i>				
14.	Security Guard			2.	Candidates whose family members neither is nor has been in Govt. service, including in PSU's /Boards/Autonomous Bodies etc. substantially owned and controlled by the Govt.	05			
		3.	Widows, divorced women, judicially separated woman and orphans girls (certificate to be issued by the Tehsildar)	05					
		4.	Casual/seasonal laborers/daily wagger and other contractual worker engaged through outsourcing for five years or more (for this purpose, proof in terms of wages for a minimum of five years will be required, and the certificate to this effect shall be countersigned by the district or Divisional Head of office where the candidate has worked)	05					
15.	Draftsman	09(Secy.) of 2022 dated 06.07.2022		i. Written test: 100 marks <b>Total : 100 marks</b>		Annexure-XII			
16.	Carpenter			i. Written test: 100 marks <b>Total : 100 marks</b> ii. Skill test: qualifying only		Annexure-XIII			
17.	Driver			i) Written test: 100 marks <b>Total : 100 marks</b> ii) Driving test: Qualifying only		Annexure-XIV			
18.	Animal Attendant			Same as mentioned at S.No 12 to 14		Annexure-XV			
19.	Works Supervisor (Civil)			i. Written test: 100 marks <b>Total : 100 marks</b> ii. Skill test: qualifying only		Annexure-XVI			

By Order

No. AUJ/Secy./22-23/3363-73

Date: 15-07-2022

Cc:-

- All Officers of SKUAST-Jammu
- Dr. Manish Sharma, Professor (Stat.) and I/c Data Center & NKN Lab for kind information and uploading of the same on the University website.
- SVC for kind information of the Hon'ble Vice-Chancellor, SKUAST-Jammu.
- Notice Board

15/7/22  
Registrar

**SKUAST**  
Jammu

Chatha, Jammu-180009, INDIA

"An institution for sustainable agriculture for food and nutritional security"  
"Healthy soils for a healthy life"

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**Annexure-I****Syllabus for written Test for the post of Data Entry Operator****Marks: 100****Time: 02.00 Hrs.**

<b>S.No.</b>	<b>Subjects/ Topic</b>	<b>Marks assigned</b>
1	GENERAL AWARENESS WITH SPECIAL REFERENCE of J&K UT	30
2	GENERAL ENGLISH & COMPREHENSION	20
3	GENERAL INTELLIGENCE & REASONING	20
4	QUANTITATIVE APTITUDE	20
5	BASIC KNOWLEDGE OF COMPUTERS	10
<b>TOTAL</b>		<b>100</b>

**1. GENERAL AWARENESS WITH SPECIAL REFERENCE of J&K UT**

- (i) Current Events of National and International importance
- (ii) Political & Physical divisions of World & India
- (iii) Climate & Crops in India
- (iv) Transport & Communication.
- (v) Demography- Census, its feature and Vital Statistics.
- (vi) Important Rivers & Lakes in India.
- (vii) Indian Economy.
- (viii) Indian Culture & Heritage.
- (ix) Indian History with special reference to Freedom Movement.
- (x) Indian Constitution- Basic features- Preamble, Fundamental Rights, Fundamental Duties, Directive Principles of State Policy
- (xi) Science & Technology
- (xii) Environment, Ecology & Bio-diversity.
- (xiii) Taxation in India- Direct & Indirect Tax - CBDT, GST etc.
- (xiv) J&K UT
  - a) History
  - b) Economy
  - c) Geography- (Weather, Climate, Crops, Rivers, Lakes, Flora, Fauna)
  - d) Heritage & Culture
  - e) Important Tourist Destinations
- (xv) J&K Reorganization Act, 2019.

## **2. GENERAL ENGLISH & COMPREHENSION**

- (i) Tenses
- (ii) Narration
- (iii) Modals
- (iv) Articles
- (v) Reading Comprehension
- (vi) Fill in the blanks with Phrases, Pronouns, homonyms/ homophones etc
- (vii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (x) Rearranging of jumbled sentences.
- (xi) Idioms and phrases.
- (xii) Uses of Prepositions.
- (xiii) Active & Passive Voice
- (xiv) Error Spotting
- (xv) Sentence Correction
- (xvi) Spellings Correction

## **3. GENERAL INTELLIGENCE & REASONING**

- (i) Number series, Letter series, Semantic Series, Speed, Distance and Time, Statements and conclusions, Logical Reasoning, Mental Reasoning, Word Building, Numerical Operations, Semantic Analogy, Symbolic/ Number Analogy, Figural Analogy, Semantic Classification, Symbolic/ Number Classification, Figural Classification, Problem Solving.
- (ii) Symbolic Operations, Trends, Space Orientation, Space Visualization, VennDiagrams, Drawing inferences, Punched hole/ pattern- folding & un- folding, Figural Pattern- folding and completion, Indexing, Address matching, Date & city matching, Classification of centre codes/roll numbers, Small & Capital letters.

## **4. QUANTITATIVE APPTITUDE**

The scope of the test will be computation of

- (i) Whole numbers, decimals, fractions and relationships between numbers, Profit and Loss, Discount, Partnership Business, Mixture and Alligation, Time and distance, Time & Work, Percentage. Ratio & Proportion, Square roots, Averages, Interest, Basic algebraic.
- (ii) Graphs of Linear Equations, Triangle and its various kinds of centres, Congruence and similarity of triangles, Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles, Triangle, Quadrilaterals, Regular

Polygons, Circle, Right Prism, Right Circular Cone, Right Circular Cylinder, Sphere, Heights and Distances, Histogram, Frequency polygon, Bar diagram & Pie chart, Hemispheres, Rectangular Parallelepiped, Regular Right Pyramid with triangular or square base, Trigonometric ratio, Degree and Radian Measures, Standard Identities, Complementary angles.

#### **5. KNOWLEDGE OF COMPUTERS**

- (i) Basic Applications of Computer and its component.
- (ii) Fundamentals of computer sciences.
- (iii) Hardware & Software, Concept of Open-Source Technologies.
- (iv) Input & output Devices.
- (v) Knowledge of MS Word, MS Excel, MS Access, MS PowerPoint, PDF Internet and E-mail.
- (vi) Concept of Computer Virus and Latest Anti-Virus.
- (vii) Role of Information Technology in Governance.

**Annexure-II****Syllabus for written Test for the post of Assistant-cum-Typist /Dispatch/Receipt/Stationery Store Clerk etc.****Marks: 100****Time: 02.00 Hrs.**

<b>S.No.</b>	<b>Subjects/ Topic</b>	<b>Marks assigned</b>
1.	GENERAL ENGLISH	25
2.	GENERAL AWARENESS WITH SPECIAL REFERENCE of J&K UT	25
3.	NUMMERICAL AND REASONING ABILITY	25
4.	BASIC CONCEPTS OF COMPUTERS	25
<b>TOTAL</b>		<b>100</b>

**Unit I General English****25 Marks**

- (i) Comprehension
- (ii) Editing / Proof Reading.
- (iii) Rearranging of jumbled sentences
- (iv) Narration
- (v) Modals
- (vi) Articles
- (vii) Paragraph writing with blanks to be filled in with the following
  - i. Phrases
  - ii. Pronouns
  - iii. Homonyms/Homophones etc.
- (viii) Clauses
- (ix) Punctuation
- (x) Synonyms and antonyms
- (xi) Idioms and phrases.
- (xii) Uses of Prepositions
- (xiii) Active & Passive Voice

**Unit-II General Awareness with special reference to JK UT****25 Marks**

- (i) Current Events of National and International importance
- (ii) Political & Physical divisions of India
- (iii) Indian Culture, Heritage and Freedom Struggle/Movement.
- (iv) Demography- Census, its feature and functions.
- (v) Important Rivers & Lakes in India.
- (vi) Weather, Climate, Crops, Means of Transport of India.
- (vii) J&K UT
  - a) History
  - b) Economy

- c) Geography- (Weather, Climate, Crops, Rivers, Lakes, Flora, Fauna etc.)
- d) Heritage & Culture
- e) Important Tourist Destinations

**Unit-III Numerical and Reasoning Ability**

**25 marks**

**Basic Arithmetic:**

- (i) Number System
- (ii) Percentage
- (iii) Average
- (iv) Profit & Loss
- (v) Ratio & Proportion
- (vi) Time & Work

**Reasoning:**

- (i) Number series
- (ii) Letter series
- (iii) Coding decoding
- (iv) Direction sense
- (v) Blood relations
- (vi) Mathematical reasoning
- (vii) Speed, Distance and Time
- (viii) Statements and conclusions.

**Unit IV Basic Concepts of Computers**

**25 Marks**

- (i) Fundamentals of computer sciences
- (ii) Hardware & Software
- (iii) Input and output devices
- (iv) Operating system
- (v) M.S Word, M.S Excel, M.S Access and PowerPoint Presentation
- (vi) Email & Internet

**Syllabus for written Test for the post of for the post of Audio-Visual-Operator****Marks: 100****Time: 02.00 Hrs.**

<b>S.No.</b>	<b>Subjects/ Topic</b>	<b>Marks assigned</b>
1.	General Intelligence & Reasoning	20
2.	Numerical Aptitude	20
3.	Knowledge of English Language & General Awareness	20
4.	Specialized Topics	40
<b>TOTAL</b>		<b>100</b>

**(1) General Intelligence & Reasoning:**

It would include questions of both verbal and non-verbal type. The test will include questions on analogies, similarities and differences, visualization, problem solving, analysis, judgment, decision making, visual memory, discriminating observation, relationship concepts, arithmetical reasoning, verbal analysis figure classification, arithmetical number series, non-verbal series etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationship, arithmetical computation and other analytical functions, etc.

**(2) Numerical Aptitude:**

Questions will cover number system including questions on simplification, decimals, fractions, LCM, HCF, Ratio and Proportion, Percentage, Average, Profit and Loss, Discount, Simple and Compound Interest, Measurement, Time and Work, Ratio and Time, Time and Distance, Tables and Graphs, etc.

**(3) Knowledge of English Language & General Awareness:****Knowledge of Language**

Testing of candidates on understanding of the English Language and its correct usage, vocabulary, grammar, sentence structure, synonyms, antonyms, and its correct usage. Questions on Paragraph Writing/Report Writing/Letter Writing etc. may be included.

**General Awareness:**

Questions will be designed to test the ability of the candidate's general awareness of the environment around him and its application to society. Questions will also be designed to test knowledge of current events and of

such matters of everyday observation and experience in their scientific aspects as may be expected of and educated persons. The test will also include questions relating to India and its neighboring countries especially pertaining to Sports, History, Culture, Geography, Economic scene, General Polity including India Constitution and Scientific Research etc. These questions will be such that they do not require a special study of any discipline, etc.

**(4) Specialized Type (Audio-visual aids): 40**

<b>Audio-visual Aids</b>	<b>Marks</b>
<p><b>Knowledge about audio aids:</b> Different types of audio aids-handling, installing and operating a radio, tape recorder: how to operate a tape recorder, operating controls and their functions, preparation and handling of DVDs and CDs. Public address equipment- microphone, amplifier and loudspeaker, operating the public address equipment.</p>	<b>10</b>
<p><b>Knowledge about visual aids:</b> <i>Non – Projected Visual Aids:</i> A) Teaching aids: chalk board, pictures including photographs and hand drawn pictures, flash cards, flip books, flip charts and flannel graph. B) Display visuals: posters, diagram, bulletin boards, models- different types of models, specimen, real objects, exhibits/displays.</p> <p><i>Projected Visual Aids:</i> Principles of projection, types of projection: i) direct projection: slide projector, flip-strip projector, ii) indirect projection: overhead projector, preparation of overhead transparency, different types of transparencies, and iii) reflected projection: opaque projector/epidiascope, screen of projector, aperture size of projector, precautions in handling the projector.</p>	<b>18</b>
<p><b>Modern audio-visual aids:</b> Handling and operating of LCD projector, power point presentation, computer projector, digital video, internet, television, video technology.</p>	<b>8</b>
<p><b>Photographic equipment and photography:</b> Cameras, parts of camera: lens, diagram and shutters, accessories to camera-exposure meter and flash attachment</p>	<b>4</b>
<b>Total</b>	<b>40</b>

**Syllabus for written Test for the post of for the post of Sound Man****Marks: 100****Time: 02.00 Hrs.**

<b>S.No.</b>	<b>Subjects/ Topic</b>	<b>Marks assigned</b>
1.	General Intelligence & Reasoning	20
2.	Numerical Aptitude	20
3.	Knowledge of English Language & General Awareness	20
4.	Specialized Topics	40
<b>TOTAL</b>		<b>100</b>

**(1) General Intelligence & Reasoning:**

It would include questions of both verbal and non-verbal type. The test will include questions on analogies, similarities and differences, visualization, problem solving, analysis, judgment, decision making, visual memory, discriminating observation, relationship concepts, arithmetical reasoning, verbal analysis figure classification, arithmetical number series, non-verbal series etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationship, arithmetical computation and other analytical functions, etc.

**(2) Numerical Aptitude:**

Questions will cover number system including questions on simplification, decimals, fractions, LCM, HCF, Ratio and Proportion, Percentage, Average, Profit and Loss, Discount, Simple and Compound Interest, Measurement, Time and Work, Ratio and Time, Time and Distance, Tables and Graphs, etc.

**(3) Knowledge of English Language & General Awareness:****Knowledge of Language**

Testing of candidates on understanding of the English Language and its correct usage, vocabulary, grammar, sentence structure, synonyms, antonyms, and its correct usage. Questions on Paragraph Writing/Report Writing/Letter Writing etc. may be included.

**General Awareness:**

Questions will be designed to test the ability of the candidate's general awareness of the environment around him and its application to society. Questions will also be designed to test knowledge of current events and of such matters of everyday observation and experience in their scientific

aspects as may be expected of and educated persons. The test will also include questions relating to India and its neighboring countries especially pertaining to Sports, History, Culture, Geography, Economic scene, General Polity including India Constitution and Scientific Research etc. These questions will be such that they do not require a special study of any discipline, etc.

**(4) Specialized Type: 40**

Surround Sound Mixing, Music Mastering, Musical Instruments Sampling, Audio Post Production for Films, Software Training : Pro Tools 110, Studio Recording & Mixing Sessions, Analog & Digital Consoles, Music Business, Sound Designing for Films & Games, MIDI Technology for Music Production, Sound Measuring Techniques (Decibels and Metering), Microphones & Monitors, Live Sound, Sound Synthesis, Studio Construction & Acoustics, Sound Signal Processing Techniques, Basic Electronics for Sound Engineering

**Syllabus for written Test for the post of Electrician**

**Marks: 100**

**Time: 02.00 Hrs.**

**UNIT I**

**13 Marks**

- 
- (i) Articles
  - (ii) Tenses
  - (iii) Modals
  - (iv) Clauses
  - (v) Determiners
  - (vi) Preposition
  - (vii) Idioms and Phrases.
  - (viii) Synonyms / Antonyms
  - (ix) Spellings
  - (x) Sentences
  - (xi) Phrases
  - (xii) Homonyms/ Homophones

**UNIT II**

**12 Marks**

- 
- (i) Current events of National importance
  - (ii) Honours and Awards
  - (iii) The World of Sports
  - (iv) Geographical Discoveries
  - (v) Principal Languages of India
  - (vi) Capitals and Currencies of Countries
  - (i) History, Geography, Culture and Economy of UT of Jammu and Kashmir
  - (ii) Flora and Fauna of J&K
  - (iii) Rivers and Lakes.
  - (iv) Important Tourist Destinations of UT of Jammu and Kashmir

**Unit III**

**17 Marks**

- 
- (i) Percentage
  - (ii) Average
  - (iii) Time, Work and Distance
  - (iv) Ratio and Proportions
  - (v) Problem of Age
  - (vi) Probability
  - (vii) LCM, HCF
  - (viii) Mensuration
  - (ix) Trigonometry
  - (x) Polynomials and Quadratic equation

**Unit-IV****16 Marks**

- (i) Sources of energy; Conventional & Non-Conventional
- (ii) Reflection & refraction of light, Mirror formula
- (iii) Refractive index, Lens formula, image formation, sign conventions.
- (iv) Defects of vision & their correctness.
- (v) Electric current; Electric potential and Potential difference
- (vi) Ohms Law, Heating effects of Current
- (vii) Environmental pollution
- (viii) Nutrition, Respiration, Excretion etc
- (ix) Communicable & Non-Communicable Diseases.
- (x) Ecosystem – Its components, Food chains and Food webs.
- (xi) Ozone layer, its depletion, Green House Effect.
- (xii) Chemical Equation, types of chemical reactions.
- (xiii) Oxidation & reduction reactions
- (xiv) Bonding in Carbon, Allotropes of Carbon
- (xv) Physical & Chemical properties of metals and non-metals.

**Unit V****8 marks**

- (i) Partition of Bengal.
- (ii) Boycott and Swadeshi Movement.
- (iii) Muslim League/ Khilafat Movement/Non-Cooperation Movement  
Quit India Movement.
- (iv) Independence and Partition of India. Change of Seasons/  
Planets/ Solar System Longitude - Latitude.
- (v) Types of Forests Classification of Soils Types of farming Major  
Crops
- (vi) Resources- Types, Conservation etc. Federalism
- (vii) Democracy – Direct & Indirect. Fundamental Rights,  
Fundamental Duties. Representation, Franchise, Secret  
Ballot. Political Parties- National, State, Regional etc.
- (viii) Economy-Primary, Secondary and Tertiary Sectors

**Unit-VI****17 marks**

- (i) Analogies
- (ii) Relationship concepts
- (iii) Figure odd one out
- (iv) Direct Sense
- (v) Figure Series completion
- (vi) Venn Diagram
- (vii) Number series
- (viii) Coding/Decoding

- (i) Communication and its importance.
- (ii) Types of communication – verbal, non-verbal, written, email etc.
- (iii) Safety and Health- Importance of safety and health at workplace.
- (iv) Occupational Hazards-Basic Hazards, Chemical, Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards.
- (v) First Aid, Care of injured & Sick at the workplaces.
- (vi) Pollution and pollutants including liquid, gaseous, solid and hazardous waste
- (vii) Skills, Working Aids, Automation, Environment, Motivation.
- (viii) Idea of ISO 9000 and BIS systems and its importance in maintaining qualities
- (ix) Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen's Compensation Act.
- (x) Metric System: Measurement of length, breadth & height in metric units Measurement of weight in metric system. Unit conversion. Reading of plain scales. Reading of tapes & foot rules

**Syllabus for the post of Classifier-cum-Cataloguer****Marks: 100****Time: 02.00 Hrs.**

<b>S.No</b>	<b>Subject</b>	<b>Maximum Marks</b>
1	General Intelligence & Reasoning	20
2	Numerical Aptitude	20
3	Knowledge of English Language & General Awareness	20
4	Specialized Topics including classification	40

**(1) General Intelligence & Reasoning:**

It would include questions of both verbal and non-verbal type. The test will include questions on analogies, similarities and differences, visualization, problem solving, analysis, judgment, decision making, visual memory, discriminating observation, relationship concepts, arithmetical reasoning, verbal analysis figure classification, arithmetical number series, non-verbal series etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationship, arithmetical computation and other analytical functions, etc.

**(2) Numerical Aptitude:**

Questions will cover number system including questions on simplification, decimals, fractions, LCM, HCF, Ratio and Proportion, Percentage, Average, Profit and Loss, Discount, Simple and Compound Interest, Measurement, Time and Work, Ratio and Time, Time and Distance, Tables and Graphs, etc.

**(3) Knowledge of Language & General Awareness:****Knowledge of Language**

Testing of candidates on understanding of the English Language and its correct usage, vocabulary, grammar, sentence structure, synonyms, antonyms, and its correct usage. Questions on Paragraph Writing/Report Writing/Letter Writing etc. may be included.

**General Awareness:**

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especially pertaining to Sports, History, Culture, Geography, Economic scene, General Polity including India Constitution and Scientific Research etc. These questions will be such that they do not require a special study of any discipline, etc.

#### **(4) Specialized Type (Classifier-cum-Cataloguer):**

##### **Library classification - Canons and Principles**

Online Offline Classification techniques, mechanisms etc.  
Library classification Schemes - DDC, UDC, and CC

##### **Library Cataloging - Canons and Principles:**

Library cataloging codes - CCC and AACR\_II  
Bibliography records - International Standards - ISBDS, MARC and CCF  
Indexing - Pre - Coordinate, Post - Coordinate  
Vocabulary control - Thesaurus, lists of Subjects Headings  
Database Search Strategies, Boolean Operators

##### **Library Automation:**

Areas of automation, planning, Hardware and Software selection, OPAC  
Functionality of LMS such as SOUL, KOHA, FOLIO etc  
Digital Libraries, Virtual Libraries  
Role of UGC, ICAR in the growth and development of SAU Libraries and information centers in institutions of higher education in India  
Source of information - Primary, secondary and tertiary - Documentary and non-documentary  
References Sources - Encyclopedias, Dictionaries, Geographical Sources, Biographical Sources, Year Book / Almanacs, Directories, and Hand books, Statistical (salient features and evaluation).  
Bibliographical Sources - bibliographies, Union, Catalogue, indexing and Abstracting, Journal (salient features and evaluation).

##### **Miscellaneous**

E - Documents: e-Books, e- Journals  
Database - Bibliography, Numeric and full text evaluation  
Organization of knowledge/information,  
Modes of formation of subjects  
Knowledge Management-  
Management-Principles, Functions, School of Thought  
System study - Analysis, evaluation and design  
Collection Development - Books Serials, non - book, Material Selection  
Acquisition Maintenance, ISBN, ISSN, Cataloguing in Publication (CIP)  
Total Quality management (TQM)  
Information Technology-Components, impact of IT on Society  
Integrated Services Digital Network (ISDN), open systems, interconnection (OSI)



dependence of resistance. Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel/ Kirchhoffs laws and their applications/ Wheatstone bridge, Meter bridge. Potentiometer principle and its application to measure the potential difference and for comparing e.m.f. of two cells; measurement of internal resistance of a cell.

### **MAGNETIC EFFECTS OF CURRENT AND MAGNETISM**

3

Biot Savart law and its application to current carrying circular loop/ampere law and its applications to infinitely long straight wire, straight and toroidal solenoids. Force on moving charge in uniform magnetic and electric fields. Cyclotron. Force on a current-carrying conductor in a uniform magnetic field. Force between two parallel current-carrying conductors-definition of ampere. Torque experienced by a current loop in uniform magnetic field; Moving coil galvanometer, its current sensitivity and conversation with examples. Current loop as a magnetic dipole and its magnetic dipole moment, magnetic field lines; Earths magnetic field and magnetic elements. Para-, dia- and ferro- magnetic substances with examples. Electromagnets and factors affecting their strength, permanent magnets.

### **ELECTROMAGNETIC INDUCTION AND ALTERNATING CURRENTS**

2

Electromagnetic induction. Faradays law, induced emf and current- Lenzs Law/ Eddy currents. Self and mutual inductance. Alternating currents, peak and rms value of alternating current/ voltage; reactance and impedance; LC oscillations (qualitative treatment only) & LCR series circuits, resonance; power in AC circuits, wattles current. AC generators and transformer.

### **ELECTROMAGNETIC WAVES**

2

Electromagnetic waves and their characteristics. Transverse nature of electromagnetic waves.

Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, Xrays, gamma rays) including elementary facts about their uses.

### **OPTICS**

3

Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and its applications, Refraction at spherical surfaces, thin lens formula, Lens-makers Formula, Magnification, Power of a Lens. combination of thin lenses in contact, Microscopes and Astronomical Telescope (reflecting and refracting) and their magnifying powers. Wave optics: wave front and Huygens principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proofs of laws of reflection and refraction using Huygen's principle. Interferences, Coherent sources, Young's double slit experiment and expression for fringe width, Diffraction due to a single slit, width of central maximum. Resolving power of pes and astronomical telescopes, Polarization, plane polarized light; Mallus's law, Brewester's law, uses of plane polarized light and Polaroids.

<p><b>DUAL NATURE OF MATTER AND RADIATION</b></p> <p>Dual nature of radiation/ Photoelectric effect, Hertz and Lenard's observations, Einstein's - photoelectric equation- particle nature of light/Mater waves-wave nature of particle, de Broglie relation. Davisson-Germer experiment.</p>	3
<p><b>ATOMS AND NUCLEI</b></p> <p>Alpha-particle scattering experiment- Rutherford's model of atom- Bohr's model energy levels, hydrogen spectrum. Composition and size of nucleus, masses, isotopes, isobars; isotones. Radioactivity-alpha, beta and gamma 'rays and their properties; radioactive decay law. Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number, nuclear fission and fusion.</p>	3
<p><b>ELECTRONIC DEVICES</b></p> <p>Semiconductors; semiconductor diode: I-V characteristics in forward and reverse bias; diode as a rectifier; I-V characteristics of LED, photodiode, solar cell and Zener diode; Zener diode as a voltage regulator. Junction transistor and its action, characteristics of a transistor; transistor as an amplifier (common emitter configuration) and oscillator. Logic gates (OR, AND, NOT) concept of NAND and NOR gates. Transistor as a switch.</p>	2
<p><b>COMMUNICATION SYSTEM</b></p> <p>Basic elements of communication system (block diagram only), Bandwidth of signals (speech, TV and digital data); Bandwidth of Transmission medium, Propagation of electromagnetic waves in the atmosphere, sky and space wave propagation. Need for modulation: Production and detection of an amplitude modulated wave.</p>	2
<b>Total</b>	<b>25</b>
<b>CHEMISTRY</b>	
<p><b>SOLID STATE &amp; STATES OF MATTER</b></p> <p>Boyle's Law, Charle's law, Dalton's law of partial pressure, Graham's law of diffusion of gases, causes of deviation from ideal behaviour, ideal gas equation and nature of R, Vander Waals equation, surface tension and viscosity of liquids, crystalline and amorphous solids, crystal lattice, crystal types, Packing efficiency, calculation of density of unit cell, number of atoms per unit cell in a cubic cell, co-ordination number, stoichiometric defects (Schottky, Frenkel and interstitial defects.), Properties of solids(electrical, magnetic &amp; dielectric).</p>	3
<p><b>SOLUTIONS</b></p> <p>Different ways of expressing the concentration of solutions (molarity, molality, mole fraction, ppm and normality), vapour pressure, Raoults law, ideal and non - ideal solutions, colligative properties, determination of molecular masses of non- volatile solutes using various colligative properties, abnormal molecular masses and Vant Hoff factor.</p>	2

<b>REDOX REACTIONS AND ELECTROCHEMISTRY</b>	
Determination of oxidation numbers, oxidation and reduction in terms of electron transfer, dependence of electrode and cell potential on concentration (Nernst Equation), electrode potential as a criteria for product formation in electrolysis. E.M.F. of Galvanic cell, relationship between free energy change and E.M.F. of a cell, definition and units of equivalent, molar and specific conductivity.	2
<b>CHEMICAL KINETICS</b>	
Effect of concentration and temperature on rate of chemical reactions, Arrhenius equation) temperature co-efficient, Concept of activation energy, first and second order reactions, half-life period, Units of rate constants for zero, first and second order reactions.	2
<b>SURFACE CHEMISTRY &amp; POLYMERS</b>	
Freundlich absorption isotherm, preparation of colloidal solutions by physical and chemical methods, electrical properties (cataphoresis, electrosmosis, coagulation and protective colloids) homogeneous and heterogeneous catalysis. Classification of polymers, addition and condensation free radical cationic and anionic polymerization, commercially important polymers.	3
<b>CO-ORDINATION CHEMISTRY AND ORGANOMETALLICS</b>	
Werner's coordination theory, nomenclature, isomerism in co-ordination compounds (ionization, linkage, hydrate, co-ordination, geometrical and optical), bonding in co-ordination compounds on the basis of V.B. theory, stability of co-ordination compounds in solution, Ferrocene and Zeises salt.	3
<b>ORGANIC CHEMISTRY BASED ON FUNCTIONAL GROUP-I</b>	
Haloalkanes, haloarenes, alcohols and phenols, General methods of preparation properties of haloalkanes, chloroform, iodoform.	2
<b>ORGANIC CHEMISTRY BASED ON FUNCTION GROUP-II</b>	
(Ethers, aldehydes and ketones, monocarboxylic acids). General methods of preparation and properties of ethers, aldehydes, ketones and monocarboxylic I derivatives of monocarboxylic acids like, acid halides, acid anhydrides acid amides and esters, relative strength of carboxylic acids.	3
<b>ORGANIC CHEMISTRY BASED ON FUNCTIONAL GROUP-III</b>	
(Cyanides, isocyanides, nitro compounds and amines)General methods of preparation and properties of cyanides, Isocyanides, nitro compounds and amines, relative basic character of amines	2
<b>MOLECULES OF LIFE (BIOMOLECULES)</b>	
Carbohydrates: definition, classification, muta-rotation, structure of aminoacids, peptides and proteins (Molish and ninhydrin tests). classification	3

and uses of vitamins. Chemicals in medicine and health care, dyes and drugs, chemical reactions in atmosphere, ozone depletion and its effects. acid rain, green house effect & global warming.	
<b>Total</b>	<b>25</b>
<b>BIOLOGY (BOTANY)</b>	
<b>REPRODUCTION IN FLOWERING PLANTS</b>	3
Modes of reproduction in flowering plants (Vegetative, asexual and sexual); flower structure, development of male and female gametophytes; Pollination types, agencies and examples; in-breeding and out-breeding, factors promoting out-breeding, pollen-pistil interaction; double fertilization; post-fertilization events; development of endosperm, embryo, seed and fruit; apomixis and polyembryony; types and importance.	
<b>GENETICS</b>	
Heredity and variation (somatic and germinal)- Mendel's laws of inheritance- I deviations from Mendelism; incomplete dominance; co-dominance; multiple/alleles; pleiotropy; chromosomal theory of inheritance. Evidence for DNA as genetic material; structure of DNA and RNA; DNA packaging; I DNA replication; Protein synthesis transcription, translation, genetic code; gene expression and regulation (lac-operon).	4
<b>ECOLOGY AND ENVIRONMENT</b>	4
Meaning of ecology, community, ecosystem and niche. Population and ecological adaptations: Characteristics of populations (birth rate (natality /fecundity), death rate (mortality) and age distribution; population interactions; competition, predation, parasitism and mutualism. Ecosystems: Biotic and abiotic components; energy flow, nutrient cycling (carbon and phosphorus), litter decomposition and primary productivity; pyramids of number, biomass and energy; ecological succession types. Biodiversity and its conservation: Levels of biodiversity; threats to biodiversity; mega-biodiversity countries and biodiversity hotspots; IUCN threat categories; in situ and ex situ methods of biodiversity conservation. Environmental issues: Causes and consequences of air and water pollution and their control; solid waste management; agro-chemicals and their effect; greenhouse effect and global warming; stratospheric ozone layer depletion causes and consequences.	
<b>BIOLOGY AND HUMAN WELFARE</b>	2
Plant breeding: Introduction, steps in plant breeding and application of plant breeding. Tissue culture: Cellular toti potency; technique and application of tissue culture. Microbes in human welfare: Role of microbes in food processing; industrial production; sewage treatment; energy production (biogas); bio-pesticides and bio-fertilizers Elementary idea of Genetically Modified Organisms (GMOs); bio-piracy and patents.	
<b>Total</b>	<b>13</b>

<b>BIOLOGY (ZOOLOGY)</b>	
<p><b>REPRODUCTION</b></p> <p>Asexual reproduction:- Characteristics and types of asexual reproduction (binary fission, sporulation, budding, gemmules, fragmentation, regeneration)  Human reproduction:- male and female reproductive system, microscopic anatomy of testis and ovary, spermatogenesis and oogenesis, menstrual cycle, fertilization, embryo development upto blastocyst formation, implantation, pregnancy and placenta formation, parturition and lactation, Reproductive health:- need for reproductive health, sexually transmitted diseases and their control and prevention, birth control, (its need and methods), contraception and medical termination of pregnancy (MPT), amniocentesis, infertility and associated reproductive technologies (IVF,ZIFT,GIFT).</p>	4
<p><b>GENETICS AND EVOLUTION</b></p> <p>Sex determination in humans, birds and honey bee. Inheritance pattern of Mendelian disorders in humans (colour blindness, haemophilia, cystic fibrosis, sickle- cell anemia, phenylketonuria, thalesemia). Chromosomal disorders in humans:- Down's syndrome, Turner's syndrome and Klinefelter's syndrome. Genome and human genome project. DNA fingerprinting. Origin of life, theories and evidences for evolution with special reference to Darwinian theory, and Modern synthetic theory, Hardy-Weinberg principle, Adaptive radiation.</p>	3
<p><b>BIOLOGY AND HUMAN WELFARE</b></p> <p>Health and Diseases:- basic concepts of immunology, vaccines, common diseases in human beings (their causative agents, symptoms and prevention and control) with reference to thyphoid, hepatitis, malaria, filariasis, bubonic plague, ascariasis, common cold, amoebiasis and ring worm, Detailed account of diseases like cancer and HIV/ AIDS. Insects and human welfare:- Silk, honey and lac producing insects, their life- cycle and usefulness of their products. Adolescence and drug and alcohol abuse (effects of drug/ alcohol abuse, prevention and control.</p>	3
<p><b>BIOTECHNOLOGY AND ITS APPLICATIONS</b></p> <p>Genetic engineering (recombinant DNA technology), cloning. Biotechnological production of human insulin, vaccines and growth hormone. Gene therapy. Bio safety/ ethical issues regarding recombinant DNA technology.</p>	2
<b>Total</b>	<b>12</b>
<b>Grand Total(Biology)</b>	<b>25</b>
<b>MATHEMATICS</b>	
<p><b>SETS, RELATIONS AND FUNCTIONS</b></p> <p>Sets and their representation, finite and infinite sets, empty set subsets, subset of real numbers especially intervals, power set, universal set. Venn diagram, union and intersection of sets .Difference of sets, Compliment of a set. Ordered pairs, Cartesian product of sets, number of elements in the Cartesian product of</p>	5

two finite sets .Cartesian product of real with itself (up to  $R \times R \times R$ ). Relation , Domain , co-domain and range of relation, types of relations ,reflexive, symmetric, transitive and equivalence relations. Function as special kind of relation from one set to another, domain, co-domain and range of a function. One to one, on to functions. Real valued functions of the real variable, constant identity, polynomial, rational modulus sign m and greatest integer functions with their graph. Sum, difference, product and quotients of functions. Composite of functions, inverse of a function, binary operations.

### LIMIT, CONTINUITY AND DIFFERENTIATION

5

Concept of limit of a function. Theorems on Limits, Evaluation of limits using standard results

Continuity of a function at a point. Continuity of Sum, product and quotient of functions. Derivative: definition of a derivative of a function, geometrical interpretation of the derivative.

Derivative of sum, difference, product and quotient of two or more functions.

Derivative of algebraic and composite functions.

Derivative of trigonometric and inverse trigonometric functions.

Chain rule, derivative of implicit functions.

Derivative of logarithmic and exponential functions.

Logarithmic differentiation.

Derivative of functions expressed in parametric forms.

Second order derivatives.

Rolle's and Lagrange's Mean Value Theorem and their geometrical interpretation and their simple applications.

Chain Rule, derivative of implicit functions.

Application of Derivative: rate of change, increasing and decreasing functions, tangents and normals, approximation, maxima and minima (first derivative and second derivative test). Simple problems.

### INTEGRATION AND DIFFERENTIAL

5

Integration as inverse process of differentiation. Integration of variety of functions by Substitution, by parts, by partial fractions. Simple integrals. Definite integrals as a Limit of a sum. Fundamental Theorem of calculus. Basic properties of definite integrals Evaluation of definite integrals. Application of integrals: Application in finding the area under simple curves, especially lines. Areas of circles, parabolas and ellipses (in standard form) Area under the curve  $y = \sin x$ ,  $y = \cos x$ , area between the above two curves. Differential Equations: Definition, order and degree of a differential equation. General and particular solutions of a differential equation. Formation of a differential equation whose general solution is given. Solution of differentiation equation by method of separation of variables. Solution of Homogeneous differential equation of first order and first degree.

Solution of linear differential equation of the type:

$$\frac{dy}{dx} + py = q$$

,where p and q are functions of x alone and

=q, where p and q are functions of y alone.

**STATISTICS AND PROBABILITY**

5

Measure of dispersion, mean, deviation, variance and standard deviation of ungrouped/ grouped data. Analysis of frequency distribution with equal means but different variances. Random Experiment: outcome, sample spaces. Events: Mutually exclusive events. Axiomatic (set theoretic) probability, probability of an event, probability of “Not” and “Or” events. Multiplication theorem on probability, conditional probability, independent events, total probability, Baye’s theorem, random variable and its probability, distribution, mean and variance of a random variable. Repeated independent (Bernouli) trials and Binomial distribution.

**VECTORS ANDTHREEDIMENSIONALGEOMETRY**

5

Vectors and scalars, magnitude and direction of a vector Direction Cosines and ratios of a vector. Types of vector, equal, zero, unit, parallel and collinear vectors. Position vector of a point, negative of a vector, components of a vector, addition of vectors, Scalar multiplication, position vector of a point dividing a line segment in a given ratio.

**Total**

**25**

**Syllabus for written Test for the post of Accounts Assistant/Cashier**

**Marks: 100**

**Time: 02.00 Hrs.**

**General Knowledge with special reference to J&K UT**

**25 Marks**

- (i) Current Events of National and International importance
- (ii) Political & Physical divisions of world & India
- (iii) Indian Culture, Heritage and Freedom Struggle/Movement.
- (iv) Transport & Communication.
- (v) Demography-Census, its feature and functions.
- (vi) Important Rivers & Lakes in India.
- (vii) Weather, Climate, Crops, Means of Transport of India.
- (viii) Environment, Ecology & Bio-diversity.
- (ix) J&K UT
  - a) History
  - b) Economy
  - c) Geography- (Weather, Climate, Crops, Rivers, Lakes, Flora, Fauna etc.)
  - d) Heritage & Culture
  - e) Important Tourist Destinations
  - f) J&K Reorganisation Act, 2019.

**Accountancy and Book Keeping**

**25 Marks**

- (i) Introduction to Financial Accounting and its terms.
- (ii) Accounting equation and Journal.
- (iii) Voucher Approach in Accounting.
- (iv) Bank Reconciliation Statement.
- (v) Financial Management/Statements.
- (vi) Partnership Accounts.
- (vii) Ledger Accounts.
- (viii) Financial Audit.
- (ix) Elements of Double entry Book Keeping.
- (x) Trial Balance
- (xi) Trading Account
- (xii) Profit Loss Account and Balance Sheet.
- (xiii) Concept of Social Accounting, Social Audit and cash based system of accounting.
- (xiv) Public Financial Management System (PFMS)
- (xv) Indian Financial Management System
- (xvi) Taxation, Tax Laws- Direct, Indirect
- (xvii) Cost Management-Budgetary control
- (xviii) Cost Accounting
- (xix) Developments in Accounting

**GENERAL ENGLISH****9 Marks**

- (i) Tenses
- (ii) Rearranging of jumbled sentences.
- (iii) Narration
- (iv) Modals
- (v) Articles
- (vi) Comprehension with blanks to be filled in with
  - i. Phrases
  - ii. Pronouns
  - iii. Homonyms / homophones.
- (vii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (x) Idioms and phrases.
- (xi) Uses of Prepositions.
- (xii) Active & Passive Voice

**Statistics****9 Marks**

- (i) Primary and secondary data.
- (ii) Methods of collecting Primary and Secondary Data
- (iii) Preparation of questionnaires
- (iv) Tabulation and compilation of Data
- (v) Measures of central Tendency
- (vi) Theory of Probability
- (vii) Theory of Attributes- Basic concepts and their applications.
- (viii) Theory of Index Numbers: Tests of Index numbers- Wholesale and consumer price Index numbers.
- (ix) Demography-Census, its features and functions.
- (x) Vital Statistics- Measures of fertility, Crude fertility rates, specific fertility rates, gross and net reproduction rates., Measures of Mortality

**Mathematics****8 Marks**

- (i) Simple / Compound interest.
- (ii) Linear equations with two variables.
- (iii) Permutations/ Combinations & Binomial Theorem.
- (iv) Limits & Derivatives.
- (v) Set Theory- Basic Concepts and Applications.
- (vi) Relations and Functions
- (vii) Matrices & Determinants
- (viii) Probability
- (ix) Coordinate & Three dimensional Geometry
- (x) Vectors. General

**Economics****8 Marks**

- (i) Introduction of Economics- Basic concept and Principles.
- (ii) Fiscal & Monetary Policy- Meaning, Scope and Methodology.

- (iii) Theory of consumers demand using indifference curve technique.
- (iv) Demand Analysis
- (v) Factor Pricing –Marginal productivity Theory & Ricardian Theory of Rent
- (vi) Pricing under various forms of Market.
- (vii) Factors of production & Laws of Production.
- (viii) Concept of Economic Growth and its measurement
- (ix) Characteristics and problems of developing economy
- (x) Planning vs Market Economy.
- (xi) Economic Reforms in India
- (xii) Concept & Measurement of National Income.
- (xiii) Role of RBI

### **General Science**

**8 Marks**

Newtons Laws of Motion, Mass, Weight, Acceleration, Velocity, Speed etc  
 Electric Current, Power, Energy, Voltage.  
 Chemical Equation, types.  
 Metals, Non-metals- Physical & Chemical properties.  
 Various sources of energy; Conventional sources of energy; Biomass and wind energy. Non-conventional sources of energy (Solar energy, Tidal energy).  
 Nutrition and its types, Respiration, Transportation of water, food and minerals in plants.  
 Communicable & Non-Communicable Diseases.  
 Vitamins- Diseases related to vitamin deficiency.  
 Ecosystem – Its components, Food chains and Food webs.  
 Environmental pollution. Ozone layer, its depletion, Green House Effect.

### **Knowledge of Computers**

**8 Marks**

Basic Applications of Computer and its component.  
 Fundamentals of computer sciences.  
 Concept of Open Source Technologies.  
 Input & output Devices.  
 Operating system  
 Knowledge of MS Word, MS Excel, MS Access, MS Powerpoint, PDF Internet and E-mail.  
 Concept of Computer Virus and Anti-Virus.  
 Hardware & Software, Elements of Computers Processing System Hardware , CPU, Peripherals, Storage Media, Software Definition, Role and Categories Firmware and Human-ware.  
 Role of Information Technology in Governance.

**Syllabus for written Test for the post of Stenographer**

**Marks: 100**  
**Hrs.**

**Time: 02.00**

<b>S.No</b>	<b>Subject</b>	<b>Marks assigned</b>
1	GENERAL AWARENESS with Special reference to J&K UT	35
2	GENERAL ENGLISH & COMPREHENSION	35
3	GENERAL INTELLIGENCE & REASONING	15
4	COMPUTER APPLICATIONS	15

**GENERAL AWARENESS with special reference of J&K UT.**

- (i) Current Events of National and International importance
- (ii) Political & Physical divisions of India
- (iii) Indian Culture, Heritage and Freedom Struggle/Movement.
- (iv) Demography- Census, its feature and functions.
- (v) Important Rivers & Lakes in India.
- (vi) Weather, Climate, Crops, Means of Transport of India.
- (vii) J&K UT
  - a) History
  - b) Economy
  - c) Geography- (Weather, Climate, Crops, Rivers, Lakes, Flora, Fauna etc.)
  - d) Heritage & Culture
  - e) Important Tourist Destinations

**2. GENERAL ENGLISH & COMPREHENSION**

- (i) Tenses
- (ii) Narration
- (iii) Modals
- (iv) Articles
- (v) Reading Comprehension
- (vi) Fill in the blanks with Phrases, Pronouns, homonyms/ homophones etc
- (viii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (xi) Rearranging of jumbled sentences.
- (xii) Idioms and phrases.
- (xiii) Uses of Prepositions.
- (xiv) Active & Passive Voice
- (xv) Error Spotting

(xvi) Sentence Correction

(xvii) Spellings Correction

### **3. GENERAL INTELLIGENCE & REASONING**

- (i) Number series, Letter series, Semantic Series, Speed, Distance and Time, Statements and conclusions, Logical Reasoning, Mental Reasoning, Word Building, Numerical Operations, Semantic Analogy, Symbolic/ Number Analogy, Figural Analogy, Semantic Classification, Symbolic/ Number Classification, Figural Classification, Problem Solving.
- (ii) Symbolic Operations, Trends, Space Orientation, Space Visualization, Venn Diagrams, Drawing inferences, Punched hole/ pattern- folding & unfolding, Figural Pattern- folding and completion, Indexing, Address matching, Date & city matching, Classification of centre codes/roll numbers, Small & Capital letters.

### **4. COMPUTER APPLICATIONS**

- (i) Basic Applications of Computer and its component.
- (ii) Fundamentals of computer sciences.
- (iii) Hardware & Software, Concept of Open-Source Technologies.
- (iv) Input & output Devices.
- (v) Knowledge of MS Word, MS Excel, MS Access, MS PowerPoint, PDF Internet and E-mail.
- (vi) Concept of Computer Virus and Latest Anti-Virus.
- (vii) Terms and Abbreviation used in IT. (viii) Role of Information Technology in Governance Annexure

**Syllabus for written Test for the post of Female Nurse****Marks: 100****Time: 02.00 Hrs.**

<b>Topic Name</b>	<b>Max Marks</b>
Anatomy Psychology	10
Microbiology	03
Psychology	05
Sociology	02
Nursing Arts Nutrition	25
Nutrition	6
Medical-Surgical Nursing	16
Orthopedic	13
Midwifery	20

**ANATOMY PHYSIOLOGY****10 marks**

- Cell, various parts and its function.
- Skeletal System –Bones, Axial Skelton, Appendicular Skelton structure and function.
- Muscular System-Types Structure and Function.
- Digestive System-Structure, Function of Organs, Process of digestion.
- Respiratory System. Structure, Function of organs, Physiology of Respiration
- Exerelory System - Structure, Function of Urinary System Structure and Function of Skin.
- Cardio Vascular System- Heart Blood Vessels/ Position, Structure, and Function  
Blood Circulation - Blood Pressure, Pulse Systemic and Pulamanary  
Lumphalic System - Lhmph Glands Function.
- Blood Composition -Function Clottong Type
- Nervous System -Structure and Function of
  - (a) Central Nervous System.
  - (b) Autonomic Nervous System.
- Endoerine System - Structure, Function of Pituitary Glands.
- Sense Organs - Ear, Eye, Nose, Structure and Function
- Female Reproductive System- Structure, Functions, Accessory Organs, Menstrual Cycle, Menopause and process of Reproduction
- Male Reproductive System-Structure and Functions.

**MICROBIOLOGY****03 Marks**

- Bacteriology, Microbiology usefulness in Nursing.
  - Common disease caused by different types of organisons.
  - Sources of ofinction, made of exit and transmission of disease,

- Immunity and Immunization schedule.
- Disinfection
- Sterilization.
- Asepsis.

## **PSYCHOLOGY**

**05 Marks**

- Definition of Psychology scope and its importance for Nurses.
- Behaviors-Nature of behavior classification, dynamics types
- behavior. Motivation.
- Function, Emotions.
- Habits-Meaning, Principals inhabit formation. Frustration and conflicts
- Learning laws, types, factors of learning, Intelligence.
- Personality, meaning, types, development, characteristics.
- Mental health characteristics, national mental health program.

## **SOCIOLOGY**

**02 Marks**

**Society - Def, meaning Gp, Types, structures, Rural and Urban society, Family, types, basic needs of family.**

## **NURSING ARTS NUTRITION**

**25 Marks**

- Fundamentals of Nursing
- Nurses qualities, def, nursing principals, scope of Nursing.
  - History of Nursing.
  - Role and responsibility of a Nurse.
  - Components of Nursing.
  - Health Agencies.
- Admission and discharge of patient.
- Signs and symptoms of approaching death.
- Nurses role in maintaining good personal hygiene.
- Bed making, various types of beds, nurses procedure for bed making.
  - Vitals -Temperature, pulse, respiration, B.P (def, type) equipments procedure
  - Mouth care - purposes, equipment, procedure complication sol used,
  - Bed sore - Def signs and symptoms, causes pressure points prevention,
  - Back care. Def. purposes, equipment, procedure.
  - Bed bath. Def. types purpose, equipment, procedure different patients uses for Different procedure.
  - Ryles tube feeding - Indication equipment's procedure suction,
  - Stomach wash or gastric lavage Def. indication procedure purpose, equipment's.
  - Catheterization - Indication purpose, procedure articles, types of catheter,
  - Enema-Def types, indication, procedure, equipment's,
  - Flatus tube - Def. purpose, procedure, equipment's,
  - Gargling - Def. purposes, Sol, used, procedure equipment's. Local hot application - Def purpose, types, equipment's procedure precautions,
  - Local cold application - Def. purposes types equipment procedure.
  - Inhalations - Def. types purpose equipment precautions procedure post of care for surgery.
  - Care of patient fever (Unconscious patient) Dyspnoea.
  - Barrier Nursing - Isolation, technique, Control of infection diseases, immunization.

- First Aid of Burns, Accident, Haemorrhage, Fractures.
- Various Bandages.
  - Blood Transfusions - Grouping Cross mating,
  - RH factor, Precautions – Blood Transmission.
- Recording and Reporting
- Collection of Specimen.
- Drugs route of Administration of drugs.

## **NUTRITION**

**06 Marks**

### ➤ **Constituents of food and its function**

- Proteins, CHO, fats, minerals, vitamins, water then sources, function daily requirement, deficiencies.
  - Applied nutrition programmes.
  - Community nutrition programmes.
  - Diet - types of diet, balanced diet.
  - Diet for different diseases.
  - Planning and preparation of menu.
  - Factors affecting coming.
  - Presentation of mal nutrition.
  - Health problems in India (Nutritional problems)
    - Communicable disease prob.
    - Population Prob.
    - Environmental suction Prob.
    - Medical care Prob.
- **Community Health Nursing:**
  - Definition and concept of health and elements.
  - Principles Primary Health care.
  - Qualities and functions of a Community Health Nurse.
  - National Health Problems and Programmes.
- **Hygiene-Personal and Environmental-Safe Water, Sanitation.**
  - Building of good health, habits, Immunization.
  - Physical health including menstrual hygiene.
  - Mental health.
- **First Aid in Emergency.**
  - Importance of First Aid
  - First Aid Emergency. Fire, Burns, Fractures, Accidents, Poisoning, Bullet injuries,
  - Drawing, Hemorrhages, Dog Bites.
  - Bandaging and splinting.

## **Medical Surgical Nursing**

**16 Marks**

- Disorders of Respiratory system:-
- Definitions, causes, types, factors, indications, investigations, treatment, NSG, Management, Prevention, Health Education, Complications of:-
  - Asthma/Bronchial.
  - Pneumonia.
  - Lung Abscess.
  - Pleurisy.

- Emphyma.
- Emphysema.
- Pulmonary Tuberculosis.
- Lobectomy.
- Pneumonectomy.
- Diet Therapy
- Drug Therapy.
- **Cardio Vascular System:**
  - Cardia Arrhythmias.
  - Pericarditis.
  - Myocarditis.
  - Congestive Heart Failure.
  - Myocardial infection.
  - Fallots of Tetralogy.
  - Hypertension.
  - Angina Pectoris.
  - Mitral Stenosis.
  - Anaemia.
  - Lenkaemia.
  - Haemophilia.
- **Gastro Intestinal System:**
  - Gastritis.
  - Peptic Uleer.
  - Appendicitis.
  - Ca Stomach
  - Colostomy, Intestinal Obstruction
  - Haemorrhoids.
  - Gastrectomy.
  - Gastrastomy.
  - Hernia.
  - Leprotomy.
- **Disease of Liver, Spleen, Gall Bladder, Pancreas:**
  - Hepatitis.
  - Cirrhosis of Liver.
  - Caliver, Pancreas.
  - Pancreatitis.
  - Tumours.
  - Cholieystities/Cholieysteetomy.
  - Spleeneetomy.
- **Genito - Urinary System and Male Reproductive System:**
  - Nephritis.
  - Ureamia.
  - Dialysis.
  - Prostate/Prostectomy.
  - Nephrectomy.
  - Hydrocoel.
- **Nervous System-Spinal Card, Nervious:**
  - Epilepsy.
  - Meningitis.
  - Parkinsonisom.
  - Encephalitis.

- Head Injury.
- Cerebro - Vascular Accident.
- Paraplegia.
- Haemoplegia.
- Quadriplegia.
- Sciatica.

➤ **Endocrine System, Metabolic Disorder:**

- Hypothyroidism.
- Hyperthyroidism.
- Thyroidectomy.
- Diabetes Mellitus.
- Gout.
- Obesity.

➤ **Skin:**

- Burn including radiation burns.
- Allergy.
- Infections EC Zema.

➤ **Operation and Theatre:**

- Care of unconscious patients/coma.
- Pre and post operative care > adult, infant.
- Intensive Care Nursing.
- Commo.....

➤ **Common Investigation and Advanced Nursing Procedures:**

- USG, OGC, CT, Lithotripsy, LP, MRI, Radiotherapy, Chemotherapy, Catheterization, Bone Marrow, Paracentesis, Thoracentesis, LFT, Endoscopy, Sigmoidoscopy, Bronchoscopy, Intercostal Drainage, H2O Drainage, Review of Vitals.

➤ **Communicable Diseases:**

- Measles, Chickenpox, Smallpox, Mumps, Poliomyelitis, Diphtheria, Whooping Cough, Tetanus, Leprosy, Typhoid, Dysentery, Cholera, Plague, Malaria, Dengue, Fever, AIDS, Pulse Polio, National Health Programme/ Problems.

**ORTHOPAEDIC**

**13 Marks**

➤ **Disorders and Diseases of Bone and Joints.**

**(Def. causes, types, preparation, investigations, indications, management)**

- Arthritis.
- Osteomyelitis.
- Rheumatoid Arthritis.
- Fractures, Dislocations, Sprains.
- Amputation.
- Traction.
- Casts.

➤ **Special senses (Eye, ENT, Ear)**

- Conjunctivitis.
- Dacry - Cystitis.

- Glaucoma.
- Trachoma.
- Myopia.
- Hypermetropia.
- Cataract.
- Corneal Ulcer.
- Otitis Media.
- Mastoiditis.
- Cleft Lip.
- Cleft Palate.
- DNS. S
- Sinusitis.
- Adenoids.
- Laryngitis.
- Tonsillitis/Tonsilectomy.
- Pharyngitis.
- Tracheostomy.
- Epistaxis.
- Psychiatric Nursing
- Depression.
- Hallucination.
- Delusion.
- Schizophrenia.
- Psychosis.
- Neurosis.
- Hysteria.
- Epilepsy.
- ECT.
- Drugs used in Psychiatric diseases.

➤ **Paediatric Nursing:**

- Growth and development from Birth to adolescence. Factors responsible for growth and development. Assessment of growth and development.
- Immunity/ Immunization schedule.
- Disorders of infections - Vomiting, Diarrhea, Convulsions, and Distensions.
- Recognition, causes, prevention and management of congenital anomalies.
- Breast feeding:
  - Importance and principles.
  - Preparation of mother.
  - Difficulties in breast feeding.
  - Factors inhibiting/ promotion lactation.
  - Introduction of solids.
  - Artificial feeding:
    - ✓ Maintenance of bottle hygiene.
    - ✓ Feeding techniques.

➤ **Disease of Children:**

➤ **Def. causes s/s investigations, factors indications; prevention, management complications of :-**

- Gastro - enteritis.
- Oesophageal Atresia.
- Mega Colon.
- Imperforated Anus.
- Jaundice.

- Phototherapy.
- **Benito - Urinary System:**
  - Hypospadiasis.
  - Undescended Testes.
- **Cardio Vascular System:**
  - Patent Ductus Arteriosus.
  - Atrial Septal Defect.
  - Ventricular septal Defect.
  - Fallot's Tetralogy.
  - Rheumatic Fever.
- **Nervous System:**
  - Cerebral Palsy.
  - Mental Retardation.
  - Meningocele.
  - Mongolism.
  - Hydrocephalus.
- **Eye, Ear:**
  - Squint.
  - Deafness.
- **Components of nutrition and Disorders:**
  - Marasmus.
  - Kwashiorkor.
  - Vitamin Deficiencies.
  - Nutritional Programme.
- **Community Health Nursing:**
- **Primary Health Centre.**
  - Set Up.
  - Function.
  - Services.
  - Sub Centre.
- **Health services Organisation at different levels:**
  - National.
  - State.
  - Local.
- **Special community Health Services and Nurses Role:**
  - Industrial Nursing.
  - Tuberculosis Nursing.
  - Geriatric Nursing.
  - Leprosy Nursing.
  - Oncology Nursing.
- **Function of District Public Health Nurse:**
- **Health Assessment.**
  - Antenatal/Care.
  - Postnatal/Care.
  - Breast Palpation.
  - Introduction of RCH.
- **Human Sexuality:**
  - Puberty in male and female.
  - Importance of sex education and sex hygiene.
  - Different methods of family planning.
  - Planning, Organising Family Planning Programmes in our area.
- **Sex Life:**
  - Sterilization.

- **Female Reproductive System and Breast:**
  - Cysts, Tumours and Fibroid of Ut. Hystrectomy.
  - Abortions, MTP.
  - Venereal Disease.
  - Abnormalities of Menstruation.
  - Breast Cancer/ Mastectomy

## **Midwifery**

**20 Marks**

- **Introduction of Histiral Review.**
  - Morbidity and Mortality Rates their Significance.
- **Review of reproductive System and embiyology.**
  - The female pelvis and generative organs,
  - Menstrual Cycle.
  - Maturation, fertilization and implantation of Ovum,
  - Formation of foetal membrances and placenta,
  - Foetal bones, skull sutures and fontanel,
  - Foetal development of foetal circulation,
  - Measurement.
- **Normal Pregnancy:**
  - Physiological changes due to pregnancy,
  - Signs and symptoms diagnosis of pregnancy.
  - Pre - Natal Care.
    - Objectives.
    - History raking.
    - Calculation of expected date of delivery.
    - Rotec examination.
  - care and advice regarding diet in pregnancy and ante excise.
  - Minor disorders or pregnancy and alleviation of discomfort.
- **Diseases Associated with pregnancy:**
  - Cardio Vascular.
  - Urinary.
  - Respiratory.
  - Metabolic.
  - Nutritional deficiencies.
- **Normal Delivery (Preparation):**
  - Requirements for mother and Baby.
  - Preparation of patient and Delivery Room - hospital and Home.
  - Psychological preparation of mother and Family.
- **Normal Labour:**
  - Onset of Labour,
  - Physiological changes,
  - Mechanisms,
  - Stages of Labour,
  - Technique of vaginal examination.
  - Management of labour and Nursing Care of mother in labour.
- **Puerperium:**
  - Physiology,
  - Management of puerperium.
  - Postnatal examination and care,
  - Care of episiotomy.
  - Establishment of breast feeding,
  - Postnatal exercises,
  - Minor ailments and management,
  - Family welfare.

➤ **Care of New Born:**

- Establishment of respiration,
- Care of card eyes and skin,
- Examination of the new born,
- Examination of defeats,
- Care of premature,
- Minor ailments.

➤ **Abnormal Midwifery:**

- **Pregnancy its complications Medical and gynecological.**
  - **Contracted pelvis**

**Ante Partum**

- **Harmon ages >**

**Post Partum**

- **Abortions.**
- **Ectopic gestation.**
- **Hydrated form Mole.**
- **Toxaemia of pregnancy.**
- **Polyhydromnias.**

**Syllabus for written Test for the post of Cook, Cleaner, Security Guard**

**Marks: 100**

**Time: 02.00 Hrs.**

- |   |   |                 |
|---|---|-----------------|
| <b>1) Basic Mathematics</b>   | = | <b>25 Marks</b> |
| <ul style="list-style-type: none"><li>• Percentage</li><li>• Average</li><li>• Time, Work and Distance</li><li>• Ration and Proportions</li><li>• Problem of Age</li><li>• Probability</li><li>• LCM, HCF</li><li>• Mensuration</li></ul>   |   |                 |
| <b>2) Basic Reasoning</b>   | = | <b>25 Marks</b> |
| <ul style="list-style-type: none"><li>• Analogies</li><li>• Relationship concepts</li><li>• Figure odd one out</li><li>• Direct Sense</li><li>• Figure Series completion</li><li>• Venn Diagram</li><li>• Number series</li><li>• Coding/Decoding</li></ul>   |   |                 |
| <b>3) Basic English</b>   | = | <b>25 Marks</b> |
| <ul style="list-style-type: none"><li>• Articles</li><li>• Synonyms</li><li>• Antonyms</li><li>• Preposition</li><li>• Verbs</li><li>• Reading comprehension</li><li>• Determiners</li><li>• Spellings</li><li>• Sentences</li></ul>  |   |                 |
| <b>4) General Awareness and Science</b>   | = | <b>25 Marks</b> |
| <ul style="list-style-type: none"><li>• General current events (National Level)</li><li>• Sports</li><li>• India culture</li><li>• India history</li><li>• Indian geography</li><li>• Capital/State</li><li>• General Science</li><li>• Health, Hygiene and Sanitation</li><li>• Geography of Jammu and Kashmir</li><li>• Culture of Jammu and Kashmir</li><li>• History of Jammu and Kashmir</li></ul> |   |                 |

**Syllabus for written Test for the post of Draftsman****Marks: 100****Time: 02.00 Hrs.**

<b>Subjects</b>	<b>Max Marks</b>
Theory of Machines and Machine Design	15
Production Engineering	15
Engineering Mechanics and Strength of Materials	13
Thermal Engineering	15
Fluid Mechanics	13
Automobile Engineering	14
Industrial Management	15

**Theory of Machines and Machine Design****15 marks**

- Four bar linkage and link motion,
- Flywheels and fluctuation of energy,
- Draftsmanwer transmission by belts-V-belts and Flat belts. Gears-Type of gears, gear profile and gear ratio calculation.
- Cams.
- Governors-Principles and classification. Design of keys,
- Shafts,
- Riveted joints,
- Couplings

**Production Engineering****15 marks**

- Structure of metals,
- Space lattice,
- Unit cell,
- BCC, FCC etc,
- Iron carbon diagram,
- Classification of Steels: mild steel & alloy steel. Heat treatment of steel. Welding – Arc
- Welding, Gas Welding,
- Resistance Welding,
- Special Welding Techniques i.e. TIG, MIG.

- Brazing & Soldering,
- Welding Defects & Testing.
- Foundry & Casting methods, defects, different casting processes.
- Forging, Extrusion etc. Metal cutting principles, cutting tools.
- Basic Principles of machining with Lathe, Milling, Drilling,
- Shaping, Grinding.
- Machine tools & manufacturing processes

### **Engineering Mechanics and Strength of Materials**

**13 Marks**

- Laws of forces,
- Equilibrium of Forces,
- Moment of Inertia,
- Laws of motion.
- Friction. Concept of simple machines,
- M A, V R, %age.
- Concepts of stress and strain,
- Elastic limit and elastic constants.
- Bending moments and shear force diagram.
- Stress in comDraftsmansite bars.
- Torsion in circular shafts.
- Columns: Euler's and Rankine's theories.
- Thin-walled pressure vessels

### **Thermal Engineering**

**15 Marks**

- Thermodynamics: Heat, work and temperature, First and second laws of thermodynamics.
- Carnot, Rankine, Otto and Diesel Cycles.
- P-v & P-T diagrams H<sub>2</sub>O.
- Saturated, wet & superheated steam.
- Definition of dryness fraction of steam, degree of superheat of steam.
- Rankine cycle of steam: Simple Rankine cycle, plot on P-V, T-S, h-s planes,
- Rankine cycle efficiency with & without pump work. Concept of COP, Carnot Cycle,
- VaDraftsmanur compression cycle.
- Refrigerants. Psychometry, DBT, WBT, DPT.

**Fluid Mechanics****13 marks**

- Properties & Classification of Fluids,
- Newton's law of viscosity, Fluid Statics,
- Measurement of Fluid Pressure by Manometers, U-tube,
- Inclined tube.
- Fluid Kinematics: Streamline,
- Laminar & turbulent flow, external & internal flow, continuity equation.
- Dynamics of ideal fluids: Bernoulli's equation, Total head; Velocity head; Pressure head.
- Measurement of Flow rate,
- Basic Principles & working of Venturimeter,
- Pitot tube,
- Orifice meter.
- Hydraulic Turbines & Centrifugal Pumps

**Automobile Engineering****14 marks**

- Tools used in Linear Measurements,
- Angular Measurement,
- Surface finish.
- Limits, fits & Tolerance,
- Error, Classification of Automobiles.
- Transmission, Steering, Braking,
- Suspension system.
- IC Engine Performance,
- IC Engine Combustion process,
- Cooling and Lubrication system in I.C Engine

**Industrial Management****15 marks**

- Planning, Organizing,
- Leading, Controlling.
- Inventory Control,
- Inspection & Quality
- Control.
- Basic concepts of CAD/CAM. NC, DNC, CNC machines.

**Syllabus for written Test for the post of Carpenter**

**Marks: 100**

**Time: 02.00 Hrs.**

**UNIT I**

**13 Marks**

- (i) Articles
- (ii) Tenses
- (iii) Modals
- (iv) Clauses
- (v) Determiners
- (vi) Preposition
- (vii) Idioms and Phrases.
- (viii) Synonyms / Antonyms
- (ix) Spellings
- (x) Sentences
- (xi) Phrases
- (xii) Homonyms/ Homophones

**UNIT II**

**12 Marks**

- (i) Current events of National importance
- (ii) Honours and Awards
- (iii) The World of Sports
- (iv) Geographical Discoveries
- (v) Principal Languages of India
- (vi) Capitals and Currencies of Countries
- (vii) History, Geography, Culture and Economy of UT of Jammu and Kashmir
- (viii) Flora and Fauna of J&K
- (ix) Rivers and Lakes.
- (x) Important Tourist Destinations of UT of Jammu and Kashmir

**UNIT III**

**17 Marks**

- (i) Percentage
- (ii) Average
- (iii) Time, Work and Distance
- (iv) Ratio and Proportions
- (v) Problem of Age
- (vi) Probability
- (vii) LCM, HCF
- (viii) Mensuration
- (ix) Trigonometry
- (x) Polynomials and Quadratic equation

**UNIT IV****17 Marks**

- (i) Sources of energy; Conventional & Non-Conventional
- (ii) Reflection & refraction of light, Mirror formula.
- (iii) Refractive index, Lens formula, image formation, sign conventions.
- (iv) Defects of vision & their correctness.
- (v) Electric current; Electric potential and Potential difference
- (vi) Ohms Law, Heating effects of Current
- (vii) Environmental pollution
- (viii) Nutrition, Respiration, Excretion etc
- (ix) Communicable & Non-Communicable Diseases.
- (x) Ecosystem – Its components, Food chains and Food webs.
- (xi) Ozone layer, its depletion, Green House Effect.
- (xii) Chemical Equation, types of chemical reactions.
- (xiii) Oxidation & reduction reactions
- (xiv) Bonding in Carbon, Allotropes of Carbon
- (xv) Physical & Chemical properties of metals and non-metals.

**UNIT V****16 Marks**

- (i) Partition of Bengal.
- (ii) Boycott and Swadeshi Movement.
- (iii) Muslim League/ Khilafat Movement/Non-Cooperation Movement
- (iv) Quit India Movement.
- (v) Independence and Partition of India.
- (vi) Change of Seasons/ Planets/ Solar System
- (vii) Longitude - Latitude.
- (viii) Types of Forests
- (ix) Classification of Soils
- (x) Types of farming
- (xi) Major Crops
- (xii) Resources- Types, Conservation etc.
- (xiii) Federalism
- (xiv) Democracy – Direct & Indirect.
- (xv) Fundamental Rights, Fundamental Duties.
- (xvi) Representation, Franchise, Secret Ballot.
- (xvii) Political Parties- National, State, Regional etc.
- (xviii) Economy-Primary, Secondary and Tertiary Sectors

**UNIT VI****10 Marks**

- (i) Analogies
- (ii) Relationship concepts
- (iii) Figure odd one out
- (iv) Direct Sense
- (v) Figure Series completion
- (vi) Venn Diagram
- (vii) Number series
- (viii) Coding/Decoding

- (i) Communication and its importance.
- (ii) Types of communication – verbal, non-verbal, written, email etc.
- (iii) Safety and Health- Importance of safety and health at workplace.
- (iv) Occupational Hazards- Basic Hazards, Chemical Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards.
- (v) First Aid, Care of injured & Sick at the workplaces.
- (vi) Pollution and pollutants including liquid, gaseous, solid and hazardous waste
- (vii) Skills, Working Aids, Automation, Environment, Motivation.
- (viii) Idea of ISO 9000 and BIS systems and its importance in maintaining qualities
- (ix) Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen's Compensation Act.
- (x) Metric System: Measurement of length, breadth & height in metric units Measurement of weight in metric system. Unit conversion. Reading of plain scales. Reading of tapes & foot rules.

**Syllabus for written Test for the post of Driver**

**Marks: 100**

**Time: 02.00 Hrs.**

**A. Traffic Rules and Signaling**

- (1) Basic Road Rules, driving methods and speed limits 10 Marks
- (2) **Understanding Signals:** 15 Marks
- (i) Traffic Police hand signals
  - (ii) Hand signals while driving
  - (iii) Traffic light signals
  - (iv) Road map reading
- (3) Knowledge of traffic signage's for road safety 8 Marks
- (4) **Fitness to drive:** 12 Marks
- (i) First aid kit
  - (ii) Good health & Road safety
  - (iii) Driving under influence of drugs/liquors
- (5) **Difficult driving condition:** 8 Marks
- (i) Driving on wet surface
  - (ii) Driving in fog
  - (iii) Night driving
  - (iv) Running on pavement
  - (v) Brake failure
  - (vi) Towing
- (6) Basic knowledge about provisions of the Motor Vehicle Act 8 Marks
- (7) Essential knowledge about vehicle pollution (Do's and Don't's) 8 Marks
- (8) **Awareness about documents required for driving and offence related** 11 Marks
- (i) Registration
  - (ii) Licensing
  - (iii) Insurance

**B. Motor Parts and its Repair**

20 Marks

- Identification of major assemblies of vehicles
- Knowledge of daily and periodic inspection
- Knowledge of fault diagnosis in tyre and its changing procedure
- Knowledge of fuel pump, clutch and brake working and their air bleeding procedure
- Lubrication grades used in vehicle for engine, transmission, differential, suspension
- Knowledge about servicing schedule and service centres location
- Knowledge of different starting methods
- Knowledge of dash board's symbols

**Syllabus for written Test for the post of Animal Attendant**

**Marks: 100**

**Time: 02.00 Hrs.**

**1) Basic Mathematics**

**= 25 Marks**

- Percentage
- Average
- Time, Work and Distance
- Ration and Proportions
- Problem of Age
- Probability
- LCM, HCF
- Mensuration

**2) Basic Reasoning**

**= 25 Marks**

- Analogies
- Relationship concepts
- Figure odd one out
- Direct Sense
- Figure Series completion
- Venn Diagram
- Number series
- Coding/Decoding

**3) Basic English**

**= 25 Marks**

- Articles
- Synonyms
- Antonyms
- Preposition
- Verbs
- Reading comprehension
- Determiners
- Spellings
- Sentences

**4) General Awareness and Science**

**= 25 Marks**

- General current events (National Level)
- Sports
- India culture
- India history
- Indian geography
- Capital/State
- General Science
- Health, Hygiene and Sanitation
- Geography of Jammu and Kashmir
- Culture of Jammu and Kashmir
- History of Jammu and Kashmir

**Syllabus for written Test for the post of Works Supervisor**

**Marks: 100**

**Time: 02.00 Hrs.**

**UNIT I**

**13 Marks**

- 
- (i) Articles
  - (ii) Tenses
  - (iii) Modals
  - (iv) Clauses
  - (v) Determiners
  - (vi) Preposition
  - (vii) Idioms and Phrases.
  - (viii) Synonyms / Antonyms
  - (ix) Spellings
  - (x) Sentences
  - (xi) Phrases
  - (xii) Homonyms/ Homophones

**UNIT II**

**12 Marks**

- 
- (i) Current events of National importance
  - (ii) Honours and Awards
  - (iii) The World of Sports
  - (iv) Geographical Discoveries
  - (v) Principal Languages of India
  - (vi) Capitals and Currencies of Countries
  - (vii) History, Geography, Culture and Economy of UT of Jammu and Kashmir
  - (viii) Flora and Fauna of J&K
  - (ix) Rivers and Lakes.
  - (x) Important Tourist Destinations of UT of Jammu and Kashmir

**Unit III**

**17 Marks**

- 
- (i) Percentage
  - (ii) Average
  - (iii) Time, Work and Distance
  - (iv) Ratio and Proportions
  - (v) Problem of Age
  - (vi) Probability
  - (vii) LCM, HCF
  - (viii) Mensuration
  - (ix) Trigonometry
  - (x) Polynomials and Quadratic equation

**Unit-IV**

**16 Marks**

- 
- (i) Sources of energy; Conventional & Non-Conventional
  - (ii) Reflection & refraction of light, Mirror formula
  - (iii) Refractive index, Lens formula, image formation, sign

- conventions.
- (iv) Defects of vision & their correctness.
  - (v) Electric current; Electric potential and Potential difference
  - (vi) Ohms Law, Heating effects of Current
  - (vii) Environmental pollution
  - (viii) Nutrition, Respiration, Excretion etc
  - (ix) Communicable & Non-Communicable Diseases.
  - (x) Ecosystem – Its components, Food chains and Food webs.
  - (xi) Ozone layer, its depletion, Green House Effect.
  - (xii) Chemical Equation, types of chemical reactions.
  - (xiii) Oxidation & reduction reactions
  - (xiv) Bonding in Carbon, Allotropes of Carbon
  - (xv) Physical & Chemical properties of metals and non-metals.

**Unit V**

**8 marks**

- (i) Partition of Bengal.
- (ii) Boycott and Swadeshi Movement.
- (iii) Muslim League/ Khilafat Movement/Non-Cooperation Movement  
Quit India Movement.
- (iv) Independence and Partition of India. Change of Seasons/  
Planets/ Solar System Longitude - Latitude.
- (v) Types of Forests Classification of Soils Types of farming Major  
Crops
- (vi) Resources- Types, Conservation etc. Federalism
- (vii) Democracy – Direct & Indirect. Fundamental Rights,  
Fundamental Duties. Representation, Franchise, Secret  
Ballot. Political Parties- National, State, Regional etc.
- (viii) Economy-Primary, Secondary and Tertiary Sectors

**Unit-VI**

**17 marks**

- (i) Analogies
- (ii) Relationship concepts
- (iii) Figure odd one out
- (iv) Direct Sense
- (v) Figure Series completion
- (vi) Venn Diagram
- (vii) Number series
- (viii) Coding/Decoding

**Unit VII**

**17 marks**

- (i) Communication and its importance.
- (ii) Types of communication – verbal, non-verbal, written, email etc.
- (iii) Safety and Health- Importance of safety and health at  
workplace.

- (iv) Occupational Hazards-Basic Hazards, Chemical Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards.
- (v) First Aid, Care of injured & Sick at the workplaces.
- (vi) Pollution and pollutants including liquid, gaseous, solid and hazardous waste
- (vii) Skills, Working Aids, Automation, Environment, Motivation.
- (viii) Idea of ISO 9000 and BIS systems and its importance in maintaining qualities
- (ix) Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen's Compensation Act.
- (x) Metric System: Measurement of length, breadth & height in metric units Measurement of weight in metric system. Unit conversion. Reading of plain scales. Reading of tapes & foot rules